November 2, 2026

The Honorable Lee Zeldin
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Submitted electronically via: regulations.gov/

Re: Comments of the New Mexico Environment Department on the Environmental Protection Agency's Supplemental Notice of Proposed Rulemaking: Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111.

Dear Administrator Zeldin,

The New Mexico Environment Department (NMED) appreciates the opportunity to submit the attached comments to the U.S. Environmental Protection Agency (EPA) regarding the supplemental notice of proposed rulemaking titled "Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111 (Docket ID No. EPA-HQ-OAR-2025-0124).

The supplemental proposal would rescind EPA's 2015 findings that greenhouse gas (GHG) emissions from fossil fuel-fired power plants warrant regulation under section 111 of the Clean Air Act and would repeal the remaining federal GHG standards of performance for new and modified fossil fuel-fired electric generating units. The proposed recission will exacerbate climate-related drought, wildfire, extreme heat, agricultural pests (e.g., New World screwworm), and infectious diseases (e.g., West Nile Virus). New Mexico continues to experience the adverse effects of climate-related aridification in communities across the state. Earlier this year, Governor Lujan Grisham declared a statewide emergency due to widespread drought and severe fire conditions.

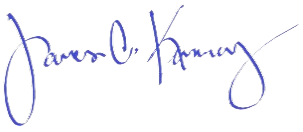
NMED provides the attached comments which outline our significant concerns with this proposal, including:

- EPA's conclusion that power-plant CO_2 has a "de minimis" effect on climate depends on analytical choices in its modeling, including a 2100-time horizon and an emissions trajectory for which EPA did not provide a scientifically supported explanation.
- Global mean temperature and sea level alone do not sufficiently characterize the public-health and welfare impacts of power-plant CO_2 emissions, which are cumulative and are experienced regionally through heat, drought, wildfire, and water stress.
- EPA's assertion that rising GHG concentrations have not produced the anticipated adverse impacts in the United States is blatantly inconsistent with the observational record and with the National Academies of Sciences, Engineering, and Medicine's 2025 review.
- The proposal does not address the co-pollutant, climate-feedback, and modeling-baseline disadvantages of repeal that EPA's own comment solicitations requested.

- New Mexico faces direct and growing consequences from the repeal, including deferred retirements of existing units, substantial new gas-fired capacity, and implications for the state's climate, energy, and water planning.
- The proposal should be considered alongside EPA's proposed rollback of greenhouse gas reporting, which would remove facility-level data New Mexico and other states rely on for its greenhouse gas emission inventories, and the signal that this same reasoning may be applied to the federal oil and gas standards that complement New Mexico's ozone and methane rules.
- EPA's environmental justice and tribal consultation analyses are deficient, which is significant in New Mexico because two of the largest fossil fuel-fired plants in the state are located on Navajo Nation.

NMED urges EPA to withdraw the supplemental proposal and retain the existing GHG standards for fossil fuel-fired electric generating units. NMED urges EPA to correct the deficiencies in its analysis identified in the attached comments and to reopen or extend the comment period so the public may evaluate the revised analysis. NMED appreciates EPA's consideration of these comments so that states like New Mexico can continue to support science-based decisions that protect public health, the environment, and our economy.

Sincerely,



James C. Kenney
Cabinet Secretary

cc: Courtney Kerster, Senior Advisor, Office of Governor Michelle Lujan Grisham
Michelle Miano, Director, Environmental Protection Division, NMED

New Mexico Environment Department Comments to the U.S. Environmental Protection Agency on the Proposed Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111 (Docket ID No. EPA-HQ-OAR-2025-0124)

Background: The U.S. Environmental Protection Agency (EPA) issued the supplemental notice of proposed rulemaking published on September 17, 2026 under *Docket ID No. EPA-HQ-OAR-2025-0124* entitled *Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111* (the Supplemental Proposal).[1] The Supplemental Proposal would rescind the agency's 2015 findings and determinations with respect to greenhouse gas (GHG) emissions from fossil fuel-fired electric generating units (EGUs) and repeal all associated GHG standards of performance codified in 40 CFR part 60, subparts TTTT and TTTTa.[2] The Supplemental Proposal advances three primary rationales: first, that Clean Air Act (CAA) section 111 does not reach "air pollution" based on global climate change concerns; second, that regulating power-plant GHGs lacks congressional authority; and third, that such regulation would be "futile" because eliminating all CO_2 from the U.S. power sector would have "no more than de minimis" effect on global temperatures and sea-level rise.[3]

NMED disagrees with the statutory interpretation advanced in the Supplemental Proposal. NMED maintains that EPA's statutory interpretation is inconsistent with the Clean Air Act, which established legal precedent, and congressional intent. NMED maintains as a threshold matter that greenhouse gases unambiguously fit the definition of "air pollutant" under the Clean Air Act as determined in Massachusetts v. EPA. The EPA's sudden assertion that it lacks statutory authority under Section 111 constitutes an arbitrary and capricious reversal of established regulatory precedent and represents a departure from its legal obligations.

This administrative reversal is legally and scientifically incorrect. In 2009, the EPA issued the Endangerment Finding and its accompanying Technical Support Document, which established the definitive link between human-caused greenhouse gas emissions and the degradation of public health and welfare due to climate change. This finding served as the scientific basis for developing the 2015 fossil fuel-fired EGUs rulemaking. Furthermore, the National Academies of Sciences, Engineering, and Medicine affirmed this scientific foundation and concluded that the underlying science is 'beyond scientific dispute.'[4]

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[1] U.S. EPA, Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111, Supplemental Notice of Proposed Rulemaking, 91 Fed. Reg. 59002 (Sept. 17, 2026) (Docket ID No. EPA-HQ-OAR-2025-0124;FRL-12674.1-01-OAR). *https://www.federalregister.gov/documents/2026/09/17/2026-19072/rescission-of-the-greenhouse-gas-findings-for-fossil-fuel-fired-power-plants-and-repeal-of*

[2] 91 Fed. Reg. at 59002–59003 (Summary; Section I.A).

[3] 91 Fed. Reg. at 59005–59006 (Section II.A, describing Sections V.A, V.B, and V.C).

[4] U.S. EPA, Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, Final Rule, 74 Fed. Reg. 66496 (Dec. 15, 2009); U.S. EPA, Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act (Dec. 7, 2009), *https://www.epa.gov/sites/default/files/2016-08/documents/endangerment_tsd.pdf* ; National Academies of Sciences, Engineering, and Medicine, Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare (2025), *https://doi.org/10.17226/29239*.

These comments express NMED's opposition to the EPA's regulatory rollback of GHG emission standards and the proposed reconsideration of the 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards. NMED previously submitted a comment letter to Docket ID No. *EPA-HQ-OAR-2025-0194-10608* on September 19, 2025 (attached to this letter), which, addressed the scientific consensus and evolving evidence of GHG science (pages 3–13), the localized climate impacts in New Mexico (pages 14–20), and the EPA's understated domestic emissions and reduction benefits (pages 21–22).[5] NMED relies on the established scientific record and the overwhelming consensus of peer-reviewed data to oppose this arbitrary and capricious rescission and repeal and calls upon the EPA to immediately withdraw the Supplemental Proposal.

Comment 1: The EPA fails to support its claim that EGU emissions have a *de minimis* effect on climate change, because its arbitrary modeling choices do not support its conclusions (Response to the EPA Comment Requests C-3 and C-5).

NMED reviewed EPA's docketed modeling materials, including the technical memorandum, the model run script for Finite Amplitude Impulse Response (FaIR) climate emulator for temperature and the Building Blocks for Relevant Ice and Climate Knowledge (BRICK) model for sea level, the year-by-year emissions scenario for U.S. power plants, and the results tables.[6] NMED approves of FaIR and BRICK modeling tools for their scientific merit.[7] Using these two models, the EPA then eliminated all CO_2 emissions from U.S. fossil fuel-fired power plants and modeled CO_2 emissions against a global baseline. When comparing the two scenarios relative to a Shared Socioeconomic Pathway 2-4.5 (SSP2-4.5) baseline, the EPA calculated a mere 0.035 °C difference in global warming and a 1.37 cm difference in sea-level rise by 2100.[8] EPA

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[5] New Mexico Environment Department, Comments on Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, Docket ID No. EPA-HQ-OAR-2025-0194-10608 (Sept. 19, 2025), *https://www.regulations.gov/comment/EPA-HQ-OAR-2025-0194-10608*. (Addressing the scientific consensus and evolving evidence of greenhouse gas science at pages 3–13, regional climate-driven impacts in New Mexico at pages 14–20, and the EPA's understated domestic emissions frameworks at pages 21–22).

[6] U.S. EPA, Technical Memo: Temperature, CO_2 Concentration, and Sea Level Rise Impacts of CO_2 Emissions from U.S. Electricity Generating Units, Docket ID No. EPA-HQ-OAR-2025-0124-2921 (Sept. 2026), and attachments "run FaIR cps" (script), "run BRICK cps" (notebook), "Physical Variable Results," and "custom emission scenarios Apr2 2026." *https://www.regulations.gov/document/EPA-HQ-OAR-2025-0124-2921*

[7] N.J. Leach et al., "FaIRv2.0.0: a generalized impulse response model for climate uncertainty and future scenario exploration," *Geoscientific Model Development* 14, 3007–3036 (2021). *https://doi.org/10.5194/gmd-14-3007-2021* ; C.J. Smith et al., "fair-calibrate v1.4.1: calibration, constraining, and validation of the FaIR simple climate model for reliable future climate projections," *Geoscientific Model Development* 17, 8569–8592 (2024). *https://doi.org/10.5194/gmd-17-8569-2024*

[8] U.S. Environmental Protection Agency, *Technical Support Document and Economic Impact Analysis for the Proposed Rescission of Greenhouse Gas Findings for Fossil Fuel-Fired EGUs*, *Docket ID No. EPA-HQ-OAR-2025-0124-2921* (Aug. 2026); published concurrently with the Supplemental Notice of Proposed Rulemaking, **91 Fed. Reg. 59002 (Sept. 17, 2026)**, and accompanying software attachments **"run FaIR cps"** (script), **"run BRICK cps"** (notebook), **"Physical Variable Results,"** and **"custom emission scenarios Apr2 2026"** [hereinafter *Technical Memo*].

characterized these modeled values as "de minimis" and concluded that regulating CO_2 emission from power plants under Clean Air Act section 111 would therefore be futile.[9]

In response to solicitation C-5's request for comments on greenhouse gas climate impacts, NMED identified six instances where the EPA artificially lowered the reported contribution of power-plant emissions without explaining its methods or testing against validated, science-based alternatives.

First, the model analysis arbitrarily ends in 2100 and does not address long-term harm. The EPA's emissions scenario for EGUs only spans from 2025 through 2100, abruptly stopping in 2101.[10] This cutoff fails to reflect the established Intergovernmental Panel on Climate Change (IPCC) science that established that carbon dioxide persists in the atmosphere for centuries, that global surface temperatures respond linearly to cumulative CO_2 emissions making global temperature remain near constant for centuries and that sea levels respond slowly, causing permanent impacts that surpass 2101.[11,12] Measuring emission contributions through 2100 ignores the long-term and persistent effects of those emissions on global temperatures and sea-level rise. NMED recommends that the EPA project emissions up to 2200 and 2300 that match the temperature and sea-level modeling literature or explain the arbitrary 2100 endpoint.

Second, the EPA's emissions scenario does not explain a decline in power-plant emissions after 2031. The EPA model claims that their forecast excludes the Inflation Reduction Act (which would keep emissions high), yet the model shows U.S. power-plant CO_2 emissions increasing from 1,540 million metric tons in 2026 to 1,641 million metric tons in 2031, then declining to 1,288 million metric tons by 2050. This represents an unexplained 22 percent decline.[13,14] Consequently, NMED requests that the EPA identify the basis for the post-2031 decline and report how its results change if emissions remain at or near the peak 2031 level.

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[9] 91 Fed. Reg. 59002, Section V.C (introduction) and Section V.C.1 (approx. 59036).

[10] Technical Memo, supra note 6, attachment "custom emission scenarios Apr2 2026," row "EGU100 / Emissions|CO2|MAGICC Fossil and Industrial" (values are zero for all years before 2025 and after 2100); attachment "run FaIR cps," line f.define_time(1750, 2101, 1).

[11] IPCC, Climate Change 2021: The Physical Science Basis, Summary for Policymakers, ¶¶ B.5, D.1.1–D.1.4 (2021). *https://doi.org/10.1017/9781009157896.001* ; A.H. MacDougall et al., "Is there warming in the pipeline? A multi-model analysis of the Zero Emissions Commitment from CO_2," Biogeosciences 17, 2987–3016 (2020). *https://doi.org/10.5194/bg-17-2987-2020*

[12] A. Nauels et al., "Multi-century global and regional sea-level rise commitments from cumulative greenhouse gas emissions in the coming decades," Nature Climate Change (2025). *https://doi.org/10.1038/s41558-025-02452-5*

[13] *See Technical Memo*, *supra* note 6, attachment data file "**custom emission scenarios Apr2 2026**." Under the EPA's designated "EGU100" regulatory scenario, baseline power sector emissions are modeled to spike at 1,641 million metric tons (Mt) in 2031 before dropping abruptly to 1,288 Mt by 2050. This represents an artificial 22 percent decline that the EPA fails to justify or account for in the proposed rule text.

[14] Id., row "EGU100 / Emissions|CO2|MAGICC Fossil and Industrial." The EPA assigns an identical emissions value to every year in the second half of the century and drops it to zero thereafter without addressing the extensive scientific literature regarding long-term, multi-century climate and sea-level damage.

The increase through 2031 is consistent with the electricity-demand growth now under way nationally, including in New Mexico (see Comments 4 and 5, infra). The subsequent decline, by contrast, is an assumption the EPA has not supported.

Third, emissions are held constant at 1,288 million metric tons of CO_2 per year from 2050 to 2100 and then fall to zero. The EPA's emissions scenario assigns that identical value to every year in the second half of the century and no emissions thereafter.[15] The rationale for holding emissions constant from 2050 through 2100 and then setting them to zero after 2100 did not appear to be explicitly addressed. If the EPA considers a constant emissions level reasonable for 2050 through 2100, NMED requests that the EPA explain why the same level is not reasonable after 2100 or report the contribution of power-plant emissions both with emissions ending at 2100 and with them continuing beyond 2100.

Fourth, the analysis includes only CO_2. The EPA's analysis omits direct methane and nitrous oxide emissions at the point of generation. Additionally, the analysis does not account for the full lifecycle emissions impact of the complete fuel supply, including processing, leakage, and upstream methane emissions associated with the natural-gas supply chain that fuels most of the fleet.[16] As a result, the model underrepresents the true emissions footprint of the power plant industry. These additional emissions, omitted from the model, contribute to climate impacts but are outside the CO_2-only scope of the analysis the EPA presented. NMED requests that the EPA explain the scope of its analysis and whether excluding non-CO_2 greenhouse gas emissions affects the conclusions drawn from the modeled results.

Fifth, the EPA's analytical framework relied on a single baseline scenario, emissions trajectory, and emulator, without conducting sensitivity or uncertainty analyses of those choices. The 95 percent ranges the EPA reports reflect uncertainty in the model's climate parameters, not in the EPA's scenario assumptions.[17] Solicitation C-5 invites alternative modeling, and NMED encourages the EPA to conduct and disclose sensitivity analyses of the time horizon, the emissions trajectory, the background scenario, and the treatment of non-CO_2 gases to address potential modeling bias, before relying on a single deterministic result.

Sixth, the EPA's modeling script references two input files, volcanic_solar.csv and emiss_var_map.csv, that NMED did not identify among the docket attachments reviewed.[18] NMED requests that the EPA confirm whether these files, or equivalent inputs, are available in the docket and provide any additional inputs

[15] Technical Memo, supra note 6, attachment "custom emission scenarios Apr2 2026" (EGU100 scenario, years 2050–2100 and 2101 onward).

[16] Technical Memo, supra note 6, attachment "custom emission scenarios Apr2 2026" (all non-CO_2 emission rows are zero).

[17] Technical Memo, supra note 6, attachment "run FaIR cps" (a single baseline, ssp245, and three scenarios: baseline, EGU100, EGU50; 841 parameter configurations); attachment "Physical Variable Results" (2.5th–97.5th percentile ranges across configurations only).

[18] *See Technical Memo*, *supra* note 6, climate emulator software script attachment **"run FaIR cps."** The script's underlying code explicitly commands the model to execute its climate calculations using two external spreadsheets: a Python instruction loading historical solar and volcanic data (forcing_file = input_dir+"/volcanic_solar.csv") and an R programming command reading localized emissions variable mappings (emiss_var_map <- read_csv(file.path(input_dir,"emiss_var_map.csv"))). Because the EPA failed to include either .csv file in the public docket as of September 28, 2026, the administrative record is structurally incomplete under the Administrative Procedure Act, as the public cannot reproduce or verify the agency's *de minimis* warming conclusions.

necessary to allow the public to reproduce and evaluate the analysis. Without them, the administrative record does not contain the inputs required to reproduce and verify the EPA's modeling, and so does not afford a meaningful opportunity for public comment as required by the Administrative Procedure Act. NMED requests that these files be placed in the public docket and that the comment period be extended by 45 days from their release to provide time for public review.

The EPA acknowledges that the 100 percent elimination scenario "does not represent a realistic approximation of the impacts of any potential regulation" and is "presented here for analytical completeness only".[19] By the EPA's own description, then, the 0.035 °C figure on which the futility conclusion rests is an illustrative construct rather than an estimate of the effect of any regulation the EPA might adopt. EPA has not explained how a figure it characterizes as unrealistic can support a determination that regulation under Clean Air Act section 111 would be futile. Treating that figure as inherently de minimis also does not account for the human and economic damage associated with the cumulative emissions that produce it; the peer-reviewed methods applied in Comment 2 indicate that those emissions are associated with hundreds of thousands of excess deaths and hundreds of billions of dollars in public health and infrastructure damages. No individual emitter's contribution to global temperature is large when measured against the global total, and this is a feature of the metric rather than a finding about the source. Peer-reviewed methods exist for evaluating the contribution of an individual source in terms of cumulative emissions and the regional impacts they cause, rather than as a fraction of a global average.[20] Under the EPA's own scenario, U.S. fossil fuel-fired power plants will emit approximately 102.6 billion metric tons of CO_2 between 2025 and 2100.[21] NMED requests that the EPA explain how emissions of this magnitude support a characterization of the modeled climate contribution as de minimis. NMED also requests that EPA revise its analysis to address the modeling techniques identified above to downplay emissions before concluding that regulation would be futile.

Comment 2: Global mean temperature and sea-level rise alone do not characterize the full public-health and welfare impacts of power-plant CO_2 emissions (Response to the EPA Comment Requests C-3, C-5, and C-6).

EPA proposes to use global mean surface temperature (GMST) and global mean sea-level rise (GSLR) as "reasonable proxies to examine the magnitude of public health and welfare impacts" of power-plant CO_2 emission reductions.[22] Although GMST and GSLR are established indicators of global climate change,

[19] 91 Fed. Reg. 59002, Section V.C.3 (approx. 59037).

[20] N.J. Abram et al., "Quantifying the regional to global climate impacts of individual fossil fuel projects to inform decision-making," npj Climate Action 4, 92 (2025). *https://doi.org/10.1038/s44168-025-00296-5* ; C.-M. Nzotungicimpaye & H.D. Matthews, "Linking cumulative carbon emissions to observable climate impacts," Environmental Research: Climate 3, 032001 (2024). *https://doi.org/10.1088/2752-5295/ad3fda*

[21] Technical Memo, supra note 6, attachment "custom emission scenarios Apr2 2026" (sum of EGU100 values, 2025–2100). NMED's arithmetic from EPA's file.

[22] U.S. EPA, Rescission of the Greenhouse Gas Findings for Fossil Fuel-Fired Power Plants and Repeal of Regulations for Power Plant Greenhouse Gas Emissions Under Clean Air Act Section 111, Supplemental Notice of Proposed Rulemaking, 91 Fed. Reg. 59002 (Sept. 17, 2026), Section V.C.2, at approx. 59036–59037 (Docket ID No. EPA-HQ-OAR-2025-0124).

neither measures public-health or welfare outcomes directly. EPA has not demonstrated that the small changes it models in global averages establish that public-health and welfare impacts are de minimis. Global averages do not, by themselves, quantify changes in regional heat extremes, drought, wildfire, or flooding, through which climate change affects people and communities.[23] The EPA's analysis therefore leaves a critical gap between its modeled changes in global indicators and its proposed conclusion about the magnitude of the resulting health and welfare effects.[24]

EPA's analysis does not adequately account for cumulative CO_2 emissions, therefore underestimating health and welfare effects. Because CO_2 persists in the atmosphere, emissions from individual sources contribute to the cumulative total that drives long-term warming.[25] The scientific literature establishes a near-linear relationship between cumulative CO_2 emissions and global temperature increase, providing a basis for assessing the contribution of emissions from a particular source or sector.[26] Methods have also been developed to translate emissions-related temperature changes into estimates of human exposure to extreme heat.[27] A small numerical change in a global average does not, by itself, support a finding that the modeled temperature change has negligible public health and welfare impacts. To support its proposed de minimis conclusion, NMED requests that the EPA explain, with supporting citations or analysis, what that modeled change means for public-health and welfare outcomes, including the uncertainty associated with those estimates.

Published methods allow the consequences of the EPA's own emissions projections to be expressed in terms of human health and economic damage. The following three examples illustrate national and international impacts that the EPA's global-average proxies do not quantify:

- Mortality. Bressler (2021) estimates that, under the study's baseline emissions scenario (4.1 °C of warming by 2100), an additional 4,434 metric tons of CO_2 emitted in 2020 causes one expected excess death worldwide between 2020 and 2100.[28] Applying this central estimate illustratively to the EPA's projected 2026 U.S. power-plant emissions of 1,540 million metric tons yields roughly 347,000 expected excess deaths. Applying the same factor to the EPA's projected cumulative power-plant emissions of 102.6 billion metric tons from 2025 through 2100 yields roughly 23

https://www.federalregister.gov/documents/2026/09/17/2026-19072/rescission-of-the-greenhouse-gas-findings-for-fossil-fuel-fired-power-plants-and-repeal-of

[23] IPCC, *Climate Change 2021: The Physical Science Basis*, Summary for Policymakers, ¶ B.2 (2021). *https://doi.org/10.1017/9781009157896.001* ; R.W. Katz & B.G. Brown, "Extreme events in a changing climate: variability is more important than averages," *Climatic Change* 21, 289–302 (1992). *https://doi.org/10.1007/BF00139728*

[24] Supra note 22.

[25] IPCC, *Climate Change 2021*, Summary for Policymakers, ¶ D.1.1 (2021). *https://doi.org/10.1017/9781009157896.001* ; C.-M. Nzotungicimpaye & H.D. Matthews, "Linking cumulative carbon emissions to observable climate impacts," *Environmental Research: Climate* 3, 032001 (2024). *https://doi.org/10.1088/2752-5295/ad3fda*

[26] Supra note 25

[27] N.J. Abram et al., "Quantifying the regional to global climate impacts of individual fossil fuel projects to inform decision-making," *npj Climate Action* 4, 92 (2025). *https://doi.org/10.1038/s44168-025-00296-5*

[28] R.D. Bressler, "The mortality cost of carbon," *Nature Communications* 12, 4467 (2021). *https://doi.org/10.1038/s41467-021-24487-w*

million.[29] These are NMED's illustrative calculations using Bressler's published 2020 estimate, not mortality forecasts produced by Bressler or estimates of deaths attributable to the EPA's proposed repeal. These figures carry substantial uncertainty, which arises from the range in Bressler's own per-ton estimate. Under Bressler's baseline scenario, the low-to-high mortality estimates range from -1.71×10^{-4} to 6.78×10^{-4} expected excess deaths per metric ton of CO_2 emitted in 2020. The mortality effect of an additional metric ton may also vary with the year in which it is emitted and with the future emissions pathway.

- Monetized damages. The EPA's analysis does not express the modeled change in monetary terms, although published estimates of the damage caused by an additional ton of CO_2 are available. Rennert et al. (2022) estimate a mean social cost of carbon of $185 per metric ton of CO_2, with a 5th-to-95th percentile range of $44–$413, using a 2 percent near-term discount rate.[30] Applying the central estimate illustratively to the EPA's projected 2026 U.S. power-plant emissions of 1,540 million metric tons yields approximately $285 billion in global damages. This is NMED's calculation using a published estimate of damages per additional metric ton of CO_2. It illustrates the potential scale of damages associated with the sector's emissions; it is not an estimate of damages attributable to the EPA's proposed repeal. The EPA's 2023 report on the social cost of greenhouse gases also provides estimates of the damages associated with additional CO_2 emissions.[31]

- Domestic wildfire-smoke damages. Qiu et al. (2026) estimate that climate-driven wildfire-smoke mortality in the United States adds approximately $11.20 in domestic damages per metric ton of CO_2 emitted in 2025.[32] Applying that estimate to the EPA's projected 2026 U.S. power-plant emissions of 1,540 million metric tons yields approximately $17 billion in U.S. wildfire-smoke mortality damages. This is NMED's calculation using a published estimate for one health-impact pathway. It is not an estimate of damages attributable to the EPA's proposed repeal, and it does not include other potential health and welfare impacts of CO_2 emissions.

None of these health and welfare pathways is reflected in the EPA's conclusion that small, modeled shifts in global temperature and sea level have de minimis impacts on public health and welfare. The mortality and damage figures above are illustrative applications of published estimates to the EPA's projected power-plant emissions, not estimates of impacts attributable to the proposed repeal. Nevertheless, they identify potential consequences that the EPA's global-average indicators do not quantify.

The EPA's Comment Request **C-6** specifically seeks information about benefits and disbenefits, including impacts that have not been monetized, quantified, or qualitatively discussed.[33] NMED requests that the

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[29] *Id.*, Table 1. The estimates are global; the Clean Air Act's concern is U.S. public health and welfare, and NMED accordingly pairs this figure with the U.S.-specific estimates cited in reference note 32 and in Comment 3.

[30] K. Rennert et al., "Comprehensive evidence implies a higher social cost of CO_2," *Nature* 610, 687–692 (2022). *https://doi.org/10.1038/s41586-022-05224-9*

[31] U.S. EPA, Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances, Docket ID No. EPA-HQ-OAR-2021-0317 (Dec. 2023). *https://www.epa.gov/system/files/documents/2023-12/epa_scghg_2023_report_final.pdf*

[32] M. Qiu et al., "Valuing wildfire smoke-related mortality benefits from climate mitigation," *Proceedings of the National Academy of Sciences* 123(8), e2533772123 (2026). *https://doi.org/10.1073/pnas.2533772123*

[33] 91 Fed. Reg. 59002, Section VII, Request for Comment C-6, at approx. 59044.

EPA explain how it considered these health and welfare pathways and the uncertainties associated with them in the analysis that lead to its proposed de minimis conclusion.

The EPA's reliance on global averages also obscures the geographic distribution of climate-related harm. The contiguous United States has warmed faster than the global average since 1970, and the Southwest has experienced substantial warming.[34] Research also identifies regional heat extremes and increasing hydroclimate volatility that global mean temperature alone cannot characterize.[35] These regional effects are particularly relevant to New Mexico, where extreme heat, drought, wildfire smoke, and water availability affect public health and welfare. NMED requests that the EPA explain how its assessment accounts for such regional consequences before concluding that the impacts associated with its modeled changes in global temperature and sea level are de minimis.

Comment 3: The EPA's assertion that rising GHG concentrations have not produced meaningful adverse effects in the United States is contradicted by the observational record in New Mexico and by the National Academies' 2025 review.

The Supplemental Proposal states that global GHG concentrations have continued to rise "all without producing the degree of adverse impacts to public health and welfare in the U.S. anticipated in the 2009 Endangerment Finding."[36] The EPA does not reference the evidence or criteria it used to determine that the anticipated degree of harm has not occurred. In May 2026, New Mexico Governor Michelle Lujan Grisham declared a statewide emergency due to widespread drought and severe fire conditions, citing historically low snowpack, record-high temperatures, below-average precipitation, and critically low runoff and river flows.[37] This declaration documents serious threats to public health and welfare that the EPA should address when evaluating the observed impacts of climate change in the United States.

In September 2025, the National Academies of Sciences, Engineering, and Medicine published a review of the scientific evidence concerning the effects of human-caused GHG emissions on U.S. climate, health, and welfare. The committee concluded that the EPA's 2009 Endangerment Finding was accurate, has stood the test of time, is now reinforced by even stronger evidence, and that the evidence for current and future harm to human health and welfare created by human-caused GHGs is beyond scientific dispute.[38]

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[34] K. Marvel et al., "Chapter 2: Climate Trends," in *Fifth National Climate Assessment* (U.S. Global Change Research Program 2023). *https://doi.org/10.7930/NCA5.2023.CH2* ; D.D. White et al., "Chapter 28: Southwest," in *Fifth National Climate Assessment* (2023). *https://doi.org/10.7930/NCA5.2023.CH28*

[35] K. Kornhuber et al., "Global emergence of regional heatwave hotspots outpaces climate model simulations," *Proceedings of the National Academy of Sciences* 121(49), e2411258121 (2024). *https://doi.org/10.1073/pnas.2411258121*; D.L. Swain et al., "Hydroclimate volatility on a warming Earth," *Nature Reviews Earth & Environment* 6, 35–50 (2025). *https://doi.org/10.1038/s43017-024-00624-z*

[36] 91 Fed. Reg. 59002, 59005 (Sept. 17, 2026), Section II.A.

[37] N.M. Exec. Order No. 2026-026, Declaring a Drought and Severe Fire Conditions Throughout the State and Urging Municipal and County Governments to Impose Water Use Restrictions and Firework Bans (May 20, 2026). *https://www.governor.state.nm.us/wp-content/uploads/2026/05/Executive-Order-2026-026-1.pdf*

[38] National Academies of Sciences, Engineering, and Medicine, Effects of Human-Caused Greenhouse Gas Emissions on U.S. Climate, Health, and Welfare (National Academies Press 2025). *https://doi.org/10.17226/29239*

The report explains that longer observational records and additional lines of scientific evidence have strengthened understanding of climate-related harms since 2009, including risks that were less well understood at the time.[39] NMED requests that the EPA explain why it concludes that the anticipated harms have not occurred when the National Academies' review finds stronger scientific evidence of harm to public health and welfare.

The observed impacts on public health and welfare in the United States further demonstrate why the EPA must explain the basis for its assertion. The following examples illustrate the evidence:

- Heat. A study of adults aged 65 and older in the contiguous United States estimated that heat waves were associated with approximately 17,600 excess deaths from 2000 to 2018, with disproportionate burdens among Black and low-income populations.[40] The 2025 Lancet Countdown reported that, on average, 84 percent of the life-threatening heat-wave days experienced annually during 2020–2024 would not have occurred without human-caused climate change.[41] A separate U.S. county-level study found an association between higher modeled extreme-heat risk and premature mortality related to cardio-kidney-metabolic conditions.[42] Together, these findings document heat-related health burdens and provide evidence relevant to the EPA's assessment of adverse impacts on public health.
- Wildfire and smoke. Fann et al. (2026) used the EPA's BenMAP-CE tool to estimate the health impacts of wildland-fire $PM_{2.5}$ and ozone exposure in the United States from 2007 to 2018. Their analysis estimated tens of thousands of cumulative deaths, with an associated societal cost of $130 billion, that falls disproportionately on socially vulnerable populations.[43] Research also links worsening fire-weather conditions to human-caused climate change. Queen et al. (2025) estimate that anthropogenic forcing contributed up to 188 percent of the observed increase in western North American fire weather over more than 50 years; a contribution exceeding 100 percent indicates that other factors partly offset the human-caused trend.[44] Turco et al. (2026) identify a human-caused signal in the global increase in extreme fire weather during 1980–2023, detectable

[39] *Id.*, Summary.

[40] J.P. Healy et al., "Heat waves and annual mortality among older adults (aged ≥65 years) in the USA," *The Lancet Planetary Health* 10(2), 101432 (2026). *https://doi.org/10.1016/j.lanplh.2026.101432.* (documenting that extreme heat-wave mortality burdens fall disproportionately on low-income and minority populations).

[41] M. Romanello et al., "The 2025 report of the Lancet Countdown on health and climate change: climate change action offers a lifeline," *The Lancet* 406(10521), 2804–2857 (2025). *https://doi.org/10.1016/S0140-6736(25)01919-1*

[42] K. Cayton et al., "County-level modeled extreme heat risk and premature all-cause mortality related to cardio-kidney-metabolic syndrome in the United States," *American Journal of Preventive Cardiology* 23, 101063 (2025). *https://doi.org/10.1016/j.ajpc.2025.101063*

[43] N. Fann et al., "Wildland fires in the US between 2007 and 2018: characterizing equity in exposures and health impacts," *Environmental Science & Technology* 60(27), 19025–19035 (2026). *https://doi.org/10.1021/acs.est.6c02242.* (utilizing EPA's BenMAP-CE tool to establish that cumulative air pollution mortality burdens are disproportionately distributed among socially vulnerable populations).

[44] L.E. Queen et al., "Fingerprint of anthropogenic climate change detected in long-term western North American fire weather trends," *Communications Earth & Environment* 6, 387 (2025). *https://doi.org/10.1038/s43247-025-02372-4*

above natural variability at 99 percent confidence.[45] For Arizona and New Mexico, Crimmins et al. (2025) found that prolonged drought and rising vapor-pressure deficits are associated with larger and more severe wildfires in conifer forests.[46] Balik et al. (2026) also found that lower snowpack water content is associated with more severe wildfire outcomes across the western United States, including a greater proportion of high-severity burning.[47]

- Pests. Warming temperatures may also increase forest vulnerability to insect pests. Clipp et al. (2026) found that pest damage is greatest in North American forest regions experiencing the fastest warming.[48] In New Mexico, the Forestry Division reported that bark beetles killed trees across approximately 209,000 acres in 2025, compared with 67,000 acres in 2024.[49]
- Water. According to NOAA's New Mexico State Climate Summary, New Mexico has warmed by more than 2 °F since the beginning of the twentieth century.[50] Rising temperatures increase evaporative demand and can intensify water stress, making observed warming particularly relevant to New Mexico's water resources. Warming temperatures and declining snowpack can reduce base flow in western headwater streams, which are important sources of surface water for the region. Mroczek et al. (2026) report that base-flow declines are particularly pronounced in early summer and project further declines of 45–65 percent by late century under the SSP2-4.5 emissions scenario.[51] Siirila-Woodburn et al. (2026) found that, in a Colorado River headwater, modeled warming reduced the runoff ratio by approximately 2–3 percent per degree Celsius of warming. The study also found that water tables at higher elevations declined disproportionately and failed to recover even during wet years.[52] Choi et al. (2026) examined 189 U.S. catchments with intermittent streamflow from 1980 to 2018 and found that streamflow droughts became

[45] M. Turco et al., "The emerging human fingerprint on global extreme fire weather," *Science Advances* 12(11), eadx9845 (2026). *https://doi.org/10.1126/sciadv.adx9845*

[46] M.A. Crimmins et al., "Changing climate, changing fire: understanding ecosystem-specific fire–climate dynamics in Arizona and New Mexico," *Earth Interactions* 29, 250001 (2025). *https://doi.org/10.1175/EI-D-25-0001.1*

[47] J.A. Balik, J.D. Coop & S.A. Parks, "Snowpack decline kindles more severe fire in the western United States," *Environmental Research Letters* (2026). *https://doi.org/10.1088/1748-9326/ae4e4a*

[48] H.L. Clipp et al., "Warming temperatures and shifting precipitation patterns may exacerbate pest damage in North American forests," *Nature Ecology & Evolution* (2026). *https://doi.org/10.1038/s41559-026-03039-9*

[49] New Mexico Energy, Minerals and Natural Resources Department, Forestry Division, *2025 Forest Health Conditions Report* (June 2026) (beetle-killed conifer forest up 211 percent, to approx. 209,000 acres, from 67,000 acres in 2024), available from the Division's forest-health page, *https://emnrd.nm.gov/sfd/forest-health/* (the 2024 edition is at *https://emnrd.nm.gov/sfd/wp-content/uploads/sites/4/2024-Forest-Health-Conditions-Report-FINAL-Copy.pdf);* Division news release reproduced at *https://losalamosreporter.com/2026/06/12/tree-deaths-tripled-across-new-mexico-in-2025-amid-drought-heat-annual-survey-of-14-million-acres-shows-beetle-kill-up-211-ercent/*

[50] R. Frankson et al., *New Mexico State Climate Summary 2022*, NOAA Technical Report NESDIS 150-NM (2022). *https://statesummaries.ncics.org/chapter/nm/*

[51] C. Mroczek, A.E. Springer, B. Lucas et al., "The Fate of Western Headwaters: Climate Controls on Base-Flow Decline," *Earth's Future* 14 (2026). *https://doi.org/10.1029/2025EF007971*

[52] E.R. Siirila-Woodburn et al., "Warming and snow loss increase reliance on old groundwater in a Colorado River headwater," *Nature Geoscience* 19, 549–555 (2026). *https://doi.org/10.1038/s41561-026-01945-y*

increasingly disconnected from precipitation droughts, likely reflecting changes in land-surface conditions and processes.[53] This finding illustrates why precipitation trends alone may not fully explain changes in water availability.

The EPA's Climate Change Indicators in the United States program has documented observed changes in temperature, heat waves, wildfires, and other climate-related conditions.[54] Together with the National Academies' 2025 assessment, these findings raise important questions about the EPA's assertion that rising GHG concentrations have not produced the anticipated degree of adverse impacts in the United States. NMED requests that the EPA explain how it evaluated this observational and scientific evidence and identify the basis for its conclusion.

Comment 4: The EPA's cost-benefit analysis is incomplete because it omits co-pollutant, regional climate-feedback, and baseline disbenefits (Solicitations C-6 and C-7).

EPA's cost-benefit analysis does not include fundamental and legitimate environmental, economic and regional true cost of deregulating EGUs. It omitted co-pollutant public health and economic damages, effects of climate feedback cycles that are linked to increased marginal grid demand, and the regional realities of active power plant projects like New Mexico's NTEC facility.

Classifying co-pollutants as 'outside the scope' of the rulemaking constitutes an arbitrary and capricious omission that results in the incomplete assessment of the effects of future EGU emissions, public health short and long term effects, and economic impacts of rescinding a GHG standard for EGUs.[55] Even using the EPA's own illustrative baseline parameters, the measured potential for reducing EGU co-pollutants would avoid approximately 6,600 premature deaths by 2030.[56] A separate U.S. grid modeling study found that increased generation from fossil fuel-fired EGUs replacing lost nuclear generation would raise $PM_{2.5}$ and ozone-related mortality, as well as climate-related mortality from additional CO_2, with monetized damages ranging from approximately $11 billion to $180 billion from a single year of additional emissions.[57] Repealing the GHG standards for EGUs would remove critical performance requirements for efficient, low fuel electricity generation as a primary means of reducing both CO_2 and co-pollutants from new combustion turbines.[58]

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[53] J. Choi et al., "South by Southwest: shifting streamflow drought in catchments with an intermittent streamflow regime in the conterminous United States," *Annals of the American Association of Geographers* (2026). *https://doi.org/10.1080/24694452.2026.2681727*

[54] U.S. EPA, Climate Change Indicators in the United States, 5th ed., EPA 430-R-24-003 (2024). *https://www.epa.gov/climate-indicators*

[55] 91 Fed. Reg. 59002, Section VI.B, at approx. 59042.

[56] X. Huang, W. Peng, A. Zhao, Y. Ou, S. Kennedy, G. Iyer et al., "Substantial air quality and health co-benefits from combined federal and subnational climate actions in the United States," *One Earth* 8, 101232 (Mar. 21, 2025). *https://doi.org/10.1016/j.oneear.2025.101232*

[57] L.M. Freese, G.P. Chossière, S.D. Eastham, A. Jenn & N.E. Selin, "Nuclear power generation phase-outs redistribute US air quality and climate-related mortality risk," *Nature Energy* 8, 492–503 (2023). *https://doi.org/10.1038/s41560-023-01241-8*

[58] U.S. EPA, Efficient Generation: Combustion Turbine Electric Generating Units — Technical Support Document, Docket ID No. EPA-HQ-OAR-2023-0072 (2023–2024); U.S. EPA, Available and Emerging Technologies for Reducing Greenhouse Gas Emissions from Combustion Turbine Electric Generating

The EPA's repeal conclusions also omit readily available, market-proven efficiency standards as a regulatory alternative. Under Clean Air Act section 111, a determination that one particular technology does not meet the Best System of Emission Reduction threshold does not support removing all CO_2 performance requirements. Highly efficient simple-cycle and combined-cycle generation are cost-effective and field-tested and have long served as proven means of curbing emission intensity per megawatt-hour. By removing the baseline generation efficiency requirements for new stationary combustion turbines rather than preserving them as a regulatory alternative, the EPA would replace an existing standard with no standard at all.[59]

EPA did not consider climate-related feedback in the repeal analysis. In the southwestern United States, drought and extreme temperatures increase reliance on fossil fuel-fired generation. Qiu et al. (2023) found that during extreme drought in the western United States, generation from some fossil fuel-fired power plants increased by as much as sixty-five percent, with more than half of the additional generation occurring outside the drought-affected region.[60,61] Zhao et al. (2023) found that extreme heat and cold events increase electricity demand and reliance on fossil fuel-fired generation, raising carbon intensity during those events. NMED requests that the EPA consider this feedback when evaluating the disbenefits of repealing federal GHG performance standards for fossil fuel-fired EGUs.

Growing electricity demand drove a 7 percent national increase in marginal CO_2 emissions, because the grid relied heavily on fossil fuels to meet incremental electricity demand.[62] Additionally, the electricity demand growth from data centers and other large industrial loads are projected to increase CO_2 emissions from approximately 1,540 million metric tons in 2026 to 1,641 million metric tons in 2031.[63]

Units (Apr. 2022). Both are posted under "Supporting Information for the Final Carbon Pollution Standards (April 2024)" on EPA's rule page, *https://www.epa.gov/stationary-sources-air-pollution/greenhouse-gas-standards-and-guidelines-fossil-fuel-fired-power* , and in Docket EPA-HQ-OAR-2023-0072 at *https://www.regulations.gov/docket/EPA-HQ-OAR-2023-0072*

[59] U.S. EPA, *Partial Repeal of the Carbon Pollution Standards for Fossil Fuel-Fired Electric Generating Units*, Final Rule, 91 Fed. Reg. 58954 (Sept. 17, 2026), Section I (stating that EPA "is not revising or repealing" the 2024 efficiency-based standards for new stationary combustion turbines and "has not changed its prior conclusion that highly efficient generation remains an appropriate BSER" for those units). *https://www.federalregister.gov/documents/2026/09/17/2026-19071/partial-repeal-of-the-carbon-pollution-standards-for-fossil-fuel-fired-electric-generating-units*

[60] M. Qiu, N. Ratledge, I.M.L. Azevedo, N.S. Diffenbaugh & M. Burke, "Drought impacts on the electricity system, emissions, and air quality in the western United States," Proceedings of the National Academy of Sciences 120(28), e2300395120 (2023). https://doi.org/10.1073/pnas.2300395120

[61] W. Zhao et al., "Reliance on fossil fuels increases during extreme temperature events in the continental United States," *Communications Earth & Environment* 4, 1–11 (2023). *https://doi.org/10.1038/s43247-023-01147-z*

[62] S.P. Holland, M.J. Kotchen, E.T. Mansur & A.J. Yates, "Why marginal CO_2 emissions are not decreasing for US electricity: estimates and implications for climate policy," *Proceedings of the National Academy of Sciences* 119(8), e2116632119 (2022). *https://doi.org/10.1073/pnas.2116632119*

[63] U.S. EPA, *Technical Memo*, Docket ID No. EPA-HQ-OAR-2025-0124-2921, attachment "custom emission scenarios Apr2 2026" (EGU100 scenario: 1,540 Mt in 2026; 1,641 Mt in 2031; 1,288 Mt in 2050). *https://www.regulations.gov/document/EPA-HQ-OAR-2025-0124-2921*

NMED's review of the NEEDS database for the 2025 Reference Case[64] used for EPA's analysis found that it excludes all eighteen units of the NTEC Gas Plant, the largest new fossil-fuel project in New Mexico, totaling approximately 677 megawatts (MW) of net summer capacity.[65] EPA Region 9 issued the plant's final air permit on August 11, 2026.[66] The NEEDS database also assumes that two combustion turbines at the Maddox Generating Station retire in 2026, whereas the EIA's July 2026 generator inventory lists later planned retirement dates of 2028 and 2034 following the owner's life-extension decision.[67] This modeling baseline therefore omits approximately 677 MW of subsequently permitted new gas-fired capacity and assumes the premature retirement of approximately 71 MW of existing gas-fired capacity, which understates future emissions and the emissions reductions attributable to the standards the EPA proposes to repeal. NMED requests that the EPA update their database and cost-benefit to reflect the missing information.

Comment 5: New Mexico faces direct and growing consequences from the repeal because its fossil fleet is expanding, its retirements are being deferred, and its exposure to climate harm is acute.

New Mexico's operating fossil fuel-fired electric generating fleet includes natural gas-fired units, an oil-fired combustion turbine, and the Four Corners Power Plant, a coal-fired facility located on Navajo Nation and subject to EPA rather than NMED air-quality jurisdiction.[68] Four Corners remains the largest single source of power-sector CO_2 emissions in New Mexico, accounting for 60.7 percent of the state's reported EGU CO_2 emissions in 2024.[69] New Mexico's two other coal-fired power plants, Escalante and San Juan,

[64] U.S. EPA, National Electric Energy Data System (NEEDS) for the 2025 Reference Case (rev. Nov. 28, 2025), Docket ID No. EPA-HQ-OAR-2025-0124-2951. *https://www.regulations.gov/document/EPA-HQ-OAR-2025-0124-2951* ; see also U.S. EPA, "2025 Reference Case," *https://www.epa.gov/power-sector-modeling/2025-reference-case* ; U.S. EPA, Documentation for EPA's Power Sector Modeling Platform, Chapter 4 ("Generating Resources"). *https://www.epa.gov/system/files/documents/2023-03/Chapter%204%20-%20Generating%20Resources.pdf*

[65] NEEDS, *supra note 64*, tab "NEEDS_DroppedCapMW" (NTEC Gas Plant, ORIS Plant Code 66478, units GEN1–GEN18, 37.6 MW each, on-line year 2028). NEEDS capacity is net summer dependable capacity (Chapter 4, *supra*). The same plant is listed at 60.5 MW per unit (1,089 MW) nameplate in EIA Form EIA-860M (July 2026) and at 41.22 MW per generator (742 MW) in EPA Region 9's permit (*infra* note 66).

[66] U.S. EPA Region 9, Final Permit Decision to Issue a Permit under the Clean Air Act Federal Indian Country Minor New Source Review Program; NTEC Energy Generation Plant, San Juan County, New Mexico, Permit No. C-2026-3, Docket ID No. EPA-R09-OAR-2024-0028 (Aug. 11, 2026). *https://www.epa.gov/publicnotices/EPA-R09-OAR-2024-0028*

[67] NEEDS, *supra note 64*, tab "NEEDS_DroppedCapMW" (Maddox, ORIS Plant Code 2446, units 2 and 3, retirement year 2026); U.S. Energy Information Administration, Form EIA-860M, *Inventory of Operating Generators as of July 2026* (Maddox units 2 and 3, planned retirement 2028 and 2034). *https://www.eia.gov/electricity/data/eia860m/*

[68] U.S. Energy Information Administration, Form EIA-860M, *Inventory of Operating Generators as of July 2026*, filtered to New Mexico. *https://www.eia.gov/electricity/data/eia860m/* ; see also Form EIA-860 (2024) as posted by EPA, Docket ID No. EPA-HQ-OAR-2025-0124-2980. *https://www.regulations.gov/document/EPA-HQ-OAR-2025-0124-2980*

[69] NMED analysis of U.S. EPA Clean Air Markets Program Data (CAMPD), Custom Data Download, Annual Emissions, Facility Aggregation, New Mexico, 2024 (Four Corners 9.11 million short tons of 15.00 million total). *https://campd.epa.gov* (downloaded Sept. 28, 2026).

retired in 2020 and 2022, respectively.[70] The EPA Clean Air Markets Program Data show that CO_2 emissions from New Mexico's gas-fired EGUs rose approximately 35 percent in the year following the 2022 retirement of the San Juan Generating Station, from approximately 5.2 million short tons in 2022 to 7.1 million short tons in 2023, before declining to approximately 5.9 million short tons in 2024.[71] Total reported power-sector CO_2 emissions in New Mexico nevertheless declined substantially over the 2019–2024 period.[72] The repeal would remove the GHG standards applicable to covered units, including new combustion turbines, therefore the consequences for New Mexico extend beyond its remaining coal-fired generation to existing and planned gas-fired capacity.

Alongside New Mexico's record investment in clean energy, the fossil fleet is expanding, not contracting.

- PNM's September 2026 Integrated Resource Plan update proposes operating the Reeves Generating Station in Albuquerque through 2044, extending units that entered service between 1959 and 1962 and previously scheduled to retire in 2030, while retiring Rio Bravo that year.[73] PNM has also sought approval for approximately 40 MW of additional combustion-turbine capacity at La Luz.[74]

- Arizona Public Service announced in August 2025 that it expects the Four Corners Power Plant to continue operating beyond its previously anticipated 2031 retirement date, potentially until 2038.[75]

[70] U.S. EIA Form EIA-860M, July 2026, *Retired Generators* tab (Escalante, retired 2020; San Juan Units 2–3 retired 2017 and Units 1 and 4 retired 2022). *https://www.eia.gov/electricity/data/eia860m/*

[71] NMED analysis of CAMPD, *supra note 69*, years 2019–2024 (gas-fired facilities: 5.24 million short tons in 2022; 7.08 in 2023; 5.89 in 2024; statewide total 23.12 in 2019 and 15.00 in 2024).

[72] Supra note 71.

[73] Public Service Company of New Mexico, Integrated Resource Plan update, N.M. Public Regulation Commission (filed Sept. 1, 2026; PNM's IRP filings are indexed at *https://www.pnm.com/irp* and in the PRC e-docket at *https://edocket.prc.nm.gov*); reported in J. Horwath, "PNM is charting a path to 100% clean energy. It's not a straight line," *Albuquerque Journal* (Sept. 12, 2026). *https://www.abqjournal.com/business/pnm-is-charting-a-path-to-100-clean-energy-its-not-a-straight-line/3118846* ; Reeves unit dates from EIA-860M, *supra note 68*.

[74] Public Service Company of New Mexico, application to N.M. Public Regulation Commission (June 1, 2026; PRC e-docket, *https://edocket.prc.nm.gov*); reported in *Albuquerque Journal* (June 2, 2026). *https://www.abqjournal.com/business/pnm-files-to-replace-coal-power-with-renewables-while-pushing-to-extend-natural-gas/3054613*

[75] Arizona Public Service statements reported in "New Mexico's Four Corners Power Plant could see operations continue beyond 2031," *Albuquerque Journal* (Aug. 19, 2025). *https://www.abqjournal.com/business/article_333f37d2-ce4f-4ac4-b4cc-a5e5ea42f1f4.html* ; see also E&E News, "Surging power demand breathes new life into New Mexico coal plant" (Aug. 15, 2025). *https://www.eenews.net/articles/surging-power-demand-breathes-new-life-into-new-mexico-coal-plant/*

- Xcel Energy's resource planning for its New Mexico and Texas service territory includes life extensions for existing gas-fired units and more than 2,000 MW of new gas-fired generating capacity.[76]

- In August 2026, the EPA Region 9 issued a final air permit for the NTEC Energy Generation Plant in San Juan County, consisting of eighteen natural gas-fired combustion turbines. EIA reports a combined nameplate capacity of approximately 1,089 MW, while the EPA's permit reflects approximately 742 MW of generating output.[77] Additional projects include approximately 60 MW of natural gas-fired capacity under construction in San Juan County and a developer-announced project proposing more than 2,000 MW of natural gas-fired generation to serve a data-center campus in Lea County.[78]

To the extent these projects consist of new affected fossil fuel-fired EGUs meeting the applicable regulatory criteria, they would be subject to the federal GHG performance standards for new sources under 40 CFR part 60, subpart TTTTa if those standards remain in effect.

This expansion is driven by documented load growth. PNM's October 2024 supplemental update to its 2023 Integrated Resource Plan raised its base-case peak-demand forecast by 10 to 11 percent, driven in part by economic-development loads including data centers; under PNM's high economic-development sensitivity, peak demand would be approximately 40 percent higher in 2035 than the 2023 base forecast.[79] PNM reported in February 2025 that it had received 4,197 MW of large-load interconnection requests, 87 percent of them from data centers, on a system with a peak demand of roughly 2,100 MW.[80] Xcel Energy's 2023 Integrated Resource Plan, filed with the New Mexico Public Regulation Commission, identified a near-term need for 5,324 to 10,211 MW of new generation in its New Mexico–Texas service territory for

[76] Xcel Energy, "Xcel Energy Announces Portfolio of New Power Projects to Meet Growing Demand in Texas and New Mexico" (July 18, 2025). *https://newsroom.xcelenergy.com/news/xcel-energy-announces-portfolio-of-new-power-projects-to-meet-growing-demand-in-texas-and-new-mexico* ; "Xcel Plans New Gas-Fired Plants as Part of 5-GW Expansion in Texas, New Mexico," *POWER* (Oct. 1, 2025) (two combustion-turbine plants totaling 2,088 MW). *https://www.powermag.com/xcel-plans-new-gas-fired-plants-as-part-of-5-gw-expansion-in-texas-new-mexico/*

[77] U.S. EPA Region 9, Permit No. C-2026-3, *supra note 66*; U.S. EIA Form EIA-860M, July 2026, *Planned Generators* tab (NTEC Gas Plant, plant ID 66478, 18 × 60.5 MW). *https://www.eia.gov/electricity/data/eia860m/*

[78] U.S. EIA Form EIA-860M, July 2026, *Planned Generators* tab (Westside (NM), plant ID 70261, Saddle Butte Energy Farmington LLC, three units totaling 60 MW, status "under construction"). *https://www.eia.gov/electricity/data/eia860m/*; New Era Energy & Digital, Inc., press release (Nov. 6, 2025). *https://www.businesswire.com/news/home/20251106765936/en/* (project not yet reported to EIA).

[79] Public Service Company of New Mexico, *Supplement to May 16, 2024, Notice of Material Event – Revised Statement of Need* and *2023 IRP Supplemental Analysis* at 7–9, 22–23, N.M. Public Regulation Commission Case No. 23-00409-UT (Oct. 10, 2024); see also PNM, *2023 Integrated Resource Plan* at 66, 72, 81 (2023). *https://www.pnm.com/irp* ; summarized in Western Resource Advocates, *Data Center Impacts in the West: Policy Solutions for Water and Energy Use* at 64–65 (2025). *https://westernresourceadvocates.org*

[80] PNM presentation, N.M. Public Regulation Commission Proceeding 24-00257, *In the Matter of an Inquiry Regarding Grid Readiness and Economic Development* (Feb. 13, 2025), as reported in Western Resource Advocates, *supra note 79*, at 64.

2028 through 2030, against a system peak demand of just over 6,000 MW.[81] The emissions characteristics of the capacity built to serve this demand will affect power-sector emissions for decades.

New Mexico's exposure to climate harm is acute:

- In the summer of 2025, the U.S. Geological Survey gauge on the Rio Grande at Albuquerque recorded zero mean daily flow on 26 days between July 17 and August 25.[82] In 2026, provisional data from the same gauge recorded zero mean daily flow on 83 days between June 4 and September 12, including a continuous 40-day period from July 26 to September 3 and every day in August; the Albuquerque Bernalillo County Water Utility Authority stopped diverting river water on April 24, 2026, and has relied entirely on groundwater since.[83]

- November 2025 through January 2026 was the warmest November–January period in New Mexico in NOAA's 131-year record, while, according to the Natural Resources Conservation Service, New Mexico's statewide snowpack fell to record-low levels beginning March 9, 2026, with the Rio Chama–Upper Rio Grande and Rio Grande Headwaters basins holding 7 and 9 percent of normal snow-water equivalent, respectively, at the end of March.[84]

- The 2024 South Fork and Salt fires burned approximately 25,500 acres in and around the Village of Ruidoso and the Mescalero Apache Reservation. These fires destroyed more than 1,400 structures, including at least 850 homes, with a combined reconstruction cost estimated at $370

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[81] Xcel Energy, "Xcel Energy files resource plan to meet customer energy needs in Southwest region through 2030" (Oct. 13, 2023). *https://newsroom.xcelenergy.com/news/xcel-energy-files-resource-plan-to-meet-customer-energy-needs-in-southwest-regio-MC35K3K7WVXZCZ3KPBXLNEFLDSRU* ; Southwestern Public Service Company, *2023 New Mexico Integrated Resource Plan*, Commission Presentation to N.M. Public Regulation Commission ("Resource Needs Near Term (2028–2030) range from 5,324 MW to 10,211 MW"). *https://www.prc.nm.gov/wp-content/uploads/2024/02/SPS-IRP-Commission-Presentation.pdf*

[82] U.S. Geological Survey, National Water Information System, monitoring location 08330000 (Rio Grande at Albuquerque, NM), approved daily mean discharge, June 1–Oct. 31, 2025 (zero flow on 26 days). *https://waterdata.usgs.gov/monitoring-location/08330000/* (retrieved Sept. 28, 2026).

[83] *Id.*, provisional daily mean discharge, Apr. 1–Sept. 27, 2026 (zero flow on 83 days; data subject to revision); Albuquerque Bernalillo County Water Utility Authority statement reported in "ABQ now pumping 100% groundwater as river sets 30-year drying record," nm.news (May 13, 2026). *https://nm.news/2026/05/13/rio-grande-faces-another-dry-summer-as-water-managers-sound-conservation-alarm/*

[84] NOAA National Centers for Environmental Information, *Climate at a Glance: Statewide Time Series*, New Mexico, average temperature, November–January, 1895–2026 (2025–26 value 43.1 *°F; rank 1 of 131; 1901–2000 mean 36.7 °F). https://www.ncei.noaa.gov/access/monitoring/climate-at-a-glance/statewide/time-series/29/tavg/3/1/1895-2026 (retrieved Sept. 28, 2026); USDA Natural Resources Conservation Service, New Mexico Water Supply Outlook Report, April 1, 2026, at 3–4. https://www.nrcs.usda.gov/sites/default/files/2026-04/April%201%202026%20New%20Mexico%20Water%20Supply%20Outlook%20Report.pdf ; see also NIDIS, Drought Status Update for the Intermountain West (Jan. 15, 2026). https://www.drought.gov/drought-status-updates/drought-status-update-intermountain-west-2026-01-15*

million, and were followed by repeated flash-flood emergencies on the burn scar.[85] These fires are not isolated incidents, but rather illustrate a multi-year trajectory in which New Mexico's wildfire seasons have grown increasingly severe, destructive, and costly. Over the last several years, prolonged drought and rising temperatures have accelerated ecological and economic damage across the state.

- A 2025 basin-wide water-budget assessment found that 52 percent of direct water consumption in the Rio Grande–Bravo basin is unsustainable, rising to 85 percent in the Rio Grande subbasins of New Mexico. Furthermore, 71 percent of the reservoir storage that existed in New Mexico at the start of 2002 was gone by the end of 2024, leaving reservoirs at 13 percent of capacity, and snowmelt inflows from the basin's headwaters have been 17 percent lower since 2000 than during the twentieth century.[86]

New Mexico cannot address these harms through state action alone. The state's air quality and climate are affected by GHG emissions originating both within and outside New Mexico, including emissions from sources over which NMED lacks regulatory authority. New Mexico has exercised its own authority to reduce GHG emissions where applicable. Executive Order 2019-003 established a statewide goal of reducing GHG emissions at least 45 percent below 2005 levels by 2030; the Energy Transition Act requires investor-owned utilities to achieve zero-carbon electricity by 2045 and rural electric cooperatives by 2050; and 20.2.101 NMAC establishes CO_2 emission requirements for certain coal-fired electric generating units.[87] New Mexico has also developed long-term planning measures addressing grid modernization, water security, climate adaptation, and utility resource planning.[88] These state policies and planning efforts operate within a regulatory framework that includes federal requirements applicable to sources and jurisdictions beyond NMED's authority.

In responding to solicitation C-1, NMED requests that the EPA address whether and to what extent States have relied on the existing federal regulatory framework in developing their own climate, energy, water and infrastructure plans. The EPA concludes that the Supplemental Proposal "does not have federalism implications" and "will not have substantial direct effects on the States." The administrative record does not support that finding. A substantial share of the emissions affecting New Mexico's air quality originates

[85] Federal Emergency Management Agency, "NM Fires, Flood Recovery Over $34 Million in Federal Assistance" (Jan. 23, 2025); L. McCarthy, New Mexico State Forester, *Update on Salt and South Fork Fire Efforts*, presentation to the Legislative Finance Committee (Aug. 20, 2024) (South Fork 17,569 acres; Salt 7,939 acres); Southwest Area Incident Management Team, *South Fork and Salt Fires Update* (July 1, 2024) (reporting severe flash flooding on the burn scar following 2–5 inches of rain).

[86] B.D. Richter, K. Abdelmohsen, S. Dhakal, J.S. Famiglietti et al., "Overconsumption gravely threatens water security in the binational Rio Grande-Bravo basin," *Discover Water* (2025), at 3, 8–9, 11 (Sections 1, 3.1, 3.4, Table 2, Fig. 6), *https://doi.org/10.1007/s43832-025-00301-2*

[87] N.M. Exec. Order No. 2019-003 (Jan. 29, 2019); Energy Transition Act, 2019 N.M. Laws ch. 65 (S.B. 489), NMSA 1978, § 62-18-1 et seq.; 20.2.101 NMAC.

[88] New Mexico Energy, Minerals and Natural Resources Department, New Mexico Grid Modernization Roadmap (2020), *https://www.emnrd.nm.gov/ecmd/wp-content/uploads/sites/6/GridModernizationRoadmap_FINAL_FOR_PUBLICATION.pdf* ; Office of the Governor, New Mexico 50-Year Water Action Plan (Jan. 2024), *https://www.nm.gov/wp-content/uploads/2024/01/New-Mexico-50-Year-WaterAction-Plan.pdf* ; New Mexico Energy, Minerals and Natural Resources Department, New Mexico Climate Adaptation and Resilience Plan (2024), *https://www.climateaction.nm.gov/CARP* ; PNM 2023 Integrated Resource Plan, supra note 79.

outside its jurisdiction or on sovereign tribal lands, and removing the baseline federal standards directly affects the State's ability to meet reduction targets that New Mexico law makes mandatory under the Energy Transition Act. NMED requests that the EPA reconcile its federalism determination with these State-level data before finalizing this action.[89]

Comment 6: EPA must uphold cooperative federalism by addressing cumulative impacts on state emissions tracking and cross-sector regulatory stability.

Two interconnected policy consequences warrant the EPA's consideration within the framework of cooperative federalism:

1. Direct Impact on State Emissions Inventories: Alterations to the EGU regulatory framework will inherently shift power sector operational behaviors, altering both emission rates and geographic distribution. Concurrently, the EPA's proposed modifications to the Greenhouse Gas Reporting Program eliminate reporting requirements for key power sector source categories.[90] This creates a direct regulatory disconnect: the Supplemental Proposal introduces changes to power plant emission profiles at the exact moment the reporting rollbacks eliminate the facility-level data needed to track those changes. When emission rates are actively changing and NMED has no reliable way to measure the new rates, the State's planning is severely hampered. Without this granular facility-level data, NMED cannot accurately update its emissions inventories, model regional air quality trends, or maintain the data baselines required for state implementation plans (SIPs). In the spirit of cooperative federalism, the EPA must evaluate how the compounding effect of these two actions undermines a state's structural ability to manage its own air basin.

2. Implications for Cross-Sector Regulatory Stability and Precedent: EPA states that it "would address in a future rulemaking, as appropriate, the extent to which the proposed conclusions in this supplemental proposal . . . require revisions to the oil and gas regulations at 40 CFR part 60, subparts OOOOa, OOOOb, and OOOOc."[91] This creates a significant potential risk for New Mexico as a major energy producer that has pioneered robust, state-specific ozone and methane regulatory frameworks.[92] If EPA's novel, restricted statutory interpretations regarding the scope

[89] 91 Fed. Reg. 59002, Section VIII.F (Executive Order 13132: Federalism), at approx. 59045.

[90] U.S. EPA, Reconsideration of the Greenhouse Gas Reporting Program, Proposed Rule, 90 Fed. Reg. 44591 (Sept. 16, 2025), Docket ID No. EPA-HQ-OAR-2025-0186 (proposing to remove reporting obligations for 46 source categories, including electricity generation under 40 CFR part 98, subpart D). *https://www.govinfo.gov/content/pkg/FR-2025-09-16/html/2025-17923.htm* ; fact sheet: *https://www.epa.gov/system/files/documents/2025-09/reconsideration-of-ghgrp-proposal-fact-sheet.pdf* ; see also U.S. EPA, Extending the Reporting Deadline Under the Greenhouse Gas Reporting Rule for 2025, Final Rule, 91 Fed. Reg. 9712 (Feb. 27, 2026) (extending the reporting deadline for reporting year 2025 data to October 30, 2026, and stating that the EPA "anticipates addressing the remainder of the proposed rule in one or more subsequent final actions"). *https://www.federalregister.gov/documents/2026/02/27/2026-03995/extending-the-reporting-deadline-under-the-greenhouse-gas-reporting-rule-for-2025*

[91] 91 Fed. Reg. 59002, Section VI.B, at approx. 59042.

[92] 20.2.50 NMAC (Oil and Natural Gas Sector – Ozone Precursor Pollutants); 19.15.27 and 19.15.28 NMAC (Energy, Minerals and Natural Resources Department, venting and flaring / natural gas waste rules).

of a 'system of emission reduction' and the definitions of an 'air pollutant' under CAA Section 111 in the Supplemental Proposal are transferred to the oil and gas sector, it could displace stable federal baselines that complement New Mexico's rules. Rather than allowing this rule to set a cross-sector precedent that facilitates removing critical oil and gas protections, EPA should clarify how its legal interpretations will be isolated to the power sector, ensuring that the cooperative federalism balance is preserved across all regulated industries.

Comment 7: The Supplemental Proposal relies on a legally deficient Environmental Justice analysis and violates federal Tribal Consultation mandates (Response to the EPA Solicitation C-1).

The Supplemental Proposal's environmental justice and tribal impact analyses do not meet federal standards. The EPA's de minimis conclusion does not address the cumulative, localized pollution burdens borne by frontline, low-income and Indigenous communities in the Southwest. New Mexico is home to twenty-three federally recognized nations, tribes and pueblos. Two of the region's largest emitting assets - the Four Corners Power Plant and the newly permitted 742 MW NTEC Gas Plant - sit on Navajo Nation sovereign land, outside NMED's regulatory jurisdiction and subject to federal oversight alone.[93] By failing to initiate formal, government-to-government consultation regarding the localized impacts of these specific assets, the EPA has ignored its procedural mandates and breached its core federal trust responsibility to protect the environmental welfare of sovereign tribal nations. Research drawing on accounts from Navajo elders documents increasing aridity and drought vulnerability since the mid-twentieth century, consistent with instrumental observations.[94] Global averages do not capture this. Fossil fuel-fired EGUs are major stationary sources of co-pollutants—including fine particulate matter ($PM_{2.5}$), sulfur dioxide (SO_2) and nitrogen oxides (NO_x)—that degrade regional airsheds, and frontline, low-income and minority populations living downwind experience higher rates of respiratory illness, cardiovascular disease and premature mortality from cumulative exposure.[95,96]

Removing the federal GHG limits would expose these communities to additional localized pollution while regional climate harm continues to affect tribal cultural and economic life. EPA has not conducted a localized health impact assessment or initiated government-to-government consultation with tribal

[93] U.S. EPA Region 9, Permit No. C-2026-3, *supra note 66*; EIA-860M, *supra note 68* (Four Corners, plant ID 2442).

[94] M.H. Redsteer, K.B. Kelley, H. Francis & D. Block, "Accounts from Tribal Elders: Increasing Vulnerability of the Navajo People to Drought and Climate Change in the Southwestern United States," in D. Nakashima, I. Krupnik & J.T. Rubis (eds.), *Indigenous Knowledge for Climate Change Assessment and Adaptation* 171–187 (Cambridge Univ. Press & UNESCO 2018). *https://doi.org/10.1017/9781316481066*

[95] Supra note 40.

[96] Supra note 43.

communities. NMED requests that EPA complete both before finalizing this action, consistent with the Administrative Procedure Act's requirement that agency conclusions rest on a reasoned record.[97,98]

Conclusion

While NMED shares EPA's stated goal of safeguarding reliable and affordable electricity, the Supplemental Proposal fundamentally fails to reconcile that objective with the compounding public health, environmental and economic realities of increased greenhouse gas emissions. By decoupling its regulatory choices from their foreseeable climate and health consequences—and by advancing narrow statutory interpretations that undermine state planning and cross-sector regulatory stability—the EPA risks shifting unmitigated burdens onto states. True cooperative federalism requires federal actions that respect, rather than disable, state-led frameworks and empirical tracking. Because the Supplemental Proposal overlooks these critical cumulative impacts, misjudges the local costs of warming, and destabilizes vital air quality baselines, NMED urges the EPA to withdraw the proposal and preserve standards that protect both public health and environmental integrity.

[97] New Mexico Indian Affairs Department, *https://www.iad.nm.gov* ; D.D. White et al., "Chapter 28: Southwest," *Fifth National Climate Assessment* (2023). *https://doi.org/10.7930/NCA5.2023.CH28* (documenting that climate hazards disproportionately impact overburdened frontline communities and Indigenous Peoples in the Southwest, particularly regarding water availability, extreme heat, and severe wildfire risks).

[98] D.D. White et al., "Chapter 28: Southwest," *supra* note 99; Institute for Tribal Environmental Professionals, Northern Arizona University, *Status of Tribes and Climate Change Report* (Vol. 1, 2021; Vol. 2, B.M. Panek, ed., March 2025). *https://www7.nau.edu/itep/main/tcc/Tribes/tdk_stacc* (detailing the unique socioeconomic, infrastructure, and cultural resource vulnerabilities that climate change-induced aridity poses to tribal sovereign nations across the United States).

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MICHELLE LUJAN GRISHAM
GOVERNOR

JAMES C. KENNEY
CABINET SECRETARY

September 19, 2025

Alan Stout
Assessment and Standards Division
Office of Transportation and Air Quality
Environmental Protection Agency
2000 Traverwood Drive
Ann Arbor, Michigan 48105

Submitted electronically via: https://www.regulations.gov

Re: *Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*; Docket ID No. EPA-HQ-OAR-2025-0194

Dear Alan Stout,

The New Mexico Environment Department (NMED) appreciates the opportunity to submit the attached comments to the U.S. Environmental Protection Agency (EPA) on the *Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. The proposed rule was published in the Federal Register on August 1, 2025, under Docket ID No. EPA-HQ-OAR-2025-0194.

NMED strongly opposes the proposed rule for several reasons, outlined briefly here:

- The scientific evidence linking anthropogenic greenhouse gas emissions to climate change has strengthened since 2009, contrary to EPA's claims in the proposed rule.
- Climate change has led to material harm to people, the economy, and the environment in New Mexico, and negative impacts are projected to increase with future warming.
- The proposed rule does not accurately represent the positive impacts of reducing domestic greenhouse gas emissions.
- EPA's analysis of the impacts of regulating transportation greenhouse emissions is inadequate.

We appreciate the consideration of these comments and look forward to them being addressed.

Sincerely,

DocuSigned by:
james kenney
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James C. Kenney
Cabinet Secretary

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Attachment (1)

cc: Melanie Kenderdine, Cabinet Secretary, Energy Minerals and Natural Resources Department
Courtney Kerster, Senior Advisor, Office of Governor Michelle Lujan Grisham
Michelle Miano, Director, Environmental Protection Division, NMED

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Attachment

New Mexico Environment Department Comments to the U.S. Environmental Protection Agency on Proposed "Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards" Rule

Overview

The New Mexico Environment Department (NMED) respectfully submits this commentary regarding the Environmental Protection Agency (EPA) proposed rule titled "Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards."[1] The proposed rule outlines EPA's scientific and legal rationale for rescinding the Endangerment Finding – a key finding that provides a basis for the regulation of greenhouse gas emissions under the Clean Air Act (CAA). NMED's comments address a number of aspects of the proposed rule, including the scientific underpinnings of the proposed rule, climate change impacts in New Mexico, domestic greenhouse gas emissions, emissions from the transportation sector, and why it is imperative to reduce greenhouse gas emissions through federal policy.

Comment 1: EPA's view that the scientific underpinnings of the 2009 endangerment finding have weakened over time is inconsistent with the scientific consensus.

In Section IV. B. 1. (Climate Science Discussion) of the "Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards" proposed rule, EPA summarizes its concerns about the validity of the scientific underpinnings of the Endangerment Finding, including reliance on a problematic 2025 U.S. Department of Energy Climate Working Group (CWG) draft report which is referenced 14 times.[2] In doing so, EPA relies on a misrepresentation of conclusions presented in scientific studies and omission of studies or methods important for understanding the climate system.

EPA's proposed rule states that "many of the scientific underpinnings of the Endangerment Finding are materially weaker than previously believed and contradicted by empirical data, peer-reviewed studies, and scientific developments since 2009."[3] However, as NMED's comment demonstrates, the scientific basis of human influence on the climate system has in fact *strengthened* since 2009; many of the studies and reports cited hereafter were published after the Endangerment Finding and unambiguously show that humans have significantly and negatively changed our climate since the industrial revolution.

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[1] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.

[2] *Ibid*.

[3] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.

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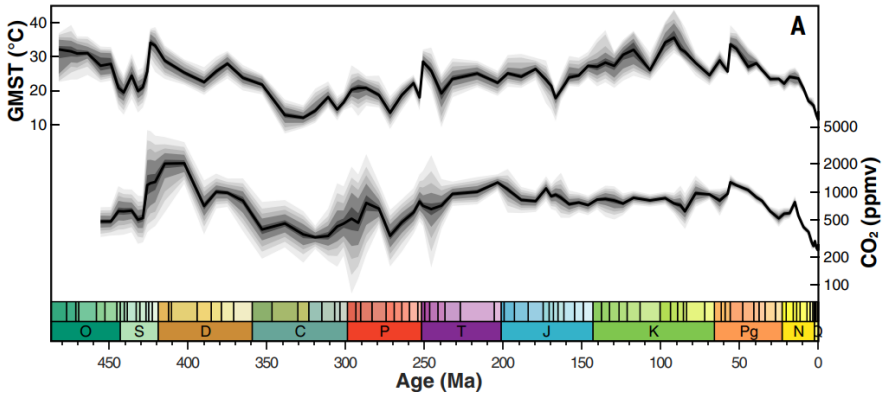
Because the proposed rule's Climate Science Discussion section (and the CWG draft report on which it relies) neither presents an accurate nor comprehensive overview of the scientific community's understanding of Earth's climate system, NMED briefly corrects the record by summarizing the state of climate science here.[4]

The link between atmospheric CO_2 and climate

Carbon dioxide (CO_2) as a primary driver of changes to Earth's climate is well understood,[5] as is the role of atmospheric greenhouse gases — including CO_2 — in regulating a temperature on Earth favorable for life. The Earth absorbs incoming solar radiation and emits infrared radiation based on its temperature. Absent an atmosphere containing greenhouse gases that absorb some of this outgoing radiation, there would not be liquid water on the surface of the planet necessary for sustaining life because surface temperatures would be too low. The role of CO_2 in regulating Earth's surface temperature and providing favorable conditions to support life has been known for decades and is not debated by the scientific community.

For example, Judd et al. (2024) present a 485-million-year record of surface temperatures which are strongly linked to CO_2 concentration (Figure 1).[6] The authors note that the consistency and strength of the temperature–CO_2 link across such a long interval is "surprising" given that non-CO_2 forcings such as solar luminosity can also meaningfully influence climate. This strong CO_2–climate relationship spans conditions ranging from icehouse to greenhouse (marked by the presence and absence of ice at the poles, respectively). Although this study is cited in the CWG draft report, only the *range* in CO_2 values is discussed, and EPA makes no mention of the unambiguous link between CO_2 and global surface temperatures.

Figure 1. Global mean surface temperature across the last 485 million years (top line) and reconstruction of atmospheric CO_2 (bottom line), with confidence intervals shown in gray shading. The plot shown below is Figure 4a from Judd et al. 2024.[7]



[4] Climate Working Group (2025). *A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate*. Washington DC: Department of Energy, July 23, 2025

[5] Lacis, Andrew A., et al. *Atmospheric CO_2: Principal control knob governing Earth's temperature.* Science 330.6002 (2010): 356-359.

[6] Judd, Emily J., et al. *A 485-million-year history of Earth's surface temperature*. Science 385.6715 (2024): eadk3705.

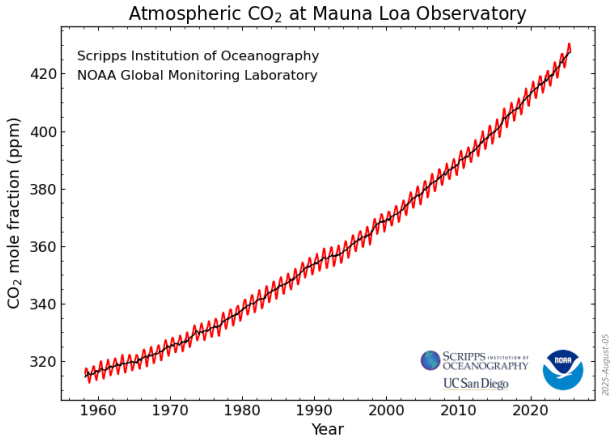
[7] *Ibid.*

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Human activities are increasing atmospheric CO_2 at an unprecedented rate.

The link between human activity (i.e., fossil fuel combustion and land use change) and a rapid increase in the concentration of atmospheric CO_2 is also well established. Thanks to a robust and nearly continuous instrumental record of atmospheric CO_2 from the Mauna Loa Observatory, Hawai'i, a secular trend of increasing CO_2 from the late 1950s to the present day is incontrovertible (Figure 2).[8] From 1959 to 2024, the Mauna Loa record indicates that the annual mean concentration of atmospheric CO_2 has increased by 34%.

Figure 2. Atmospheric CO_2 concentration recorded at Mauna Loa Observatory.[9]



There are multiple lines of evidence that collectively indicate that human activity is largely responsible for the observed increase in atmospheric CO_2 concentration following the industrial revolution. First, the cumulative amount of CO_2 added to the atmosphere by human activities can be estimated; this quantity is nearly 500 gigatons of carbon (GtC) from fossil fuel combustion and over 200 GtC from land-use change from 1850 to 2023.[10] For comparison, the total mass of carbon in the atmosphere in 2023 was approximately 890 GtC.[11] The amount of *anthropogenic* carbon that *persists* in the atmosphere can be calculated by comparing the amount of carbon added to the atmosphere via human activities to the quantity of carbon in the atmosphere before and after anthropogenic additions. The fraction of anthropogenic carbon that remains in the atmosphere after being added is approximately 44%; approximately 56% of anthropogenic carbon has therefore been taken up by sinks such as oceans or the terrestrial biosphere.[12] Although the 2024 global carbon budget work by Friedlingstein et al. is cited in the proposed rule when discussing the ability of terrestrial ecosystems and oceans to take up CO_2, EPA makes no mention of the recent increase in atmospheric carbon due to human activities.

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[8] https://gml.noaa.gov/ccgg/trends/. "Trends in Atmospheric Carbon Dioxide (CO_2), Manua Loa, Hawaii." Accessed August 6, 2025.

[9] *Ibid.*

[10] Friedlingstein, Pierre, et al. "Global carbon budget 2024." *Earth System Science Data Discussions* 2024 (2024): 1-133.

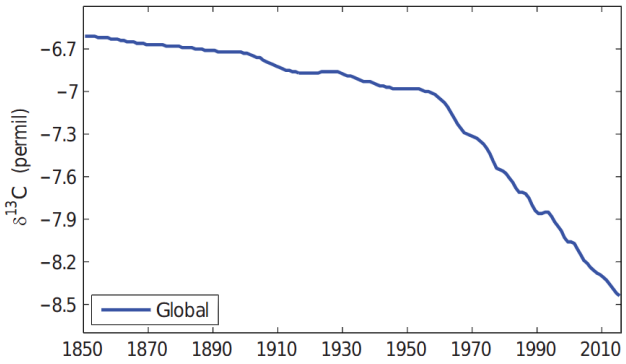
[11] *Ibid.*

[12] *Ibid.*

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Second, the carbon isotopic composition of atmospheric CO_2 can be measured, which provides robust and unambiguous information about its source. There are three naturally occurring isotopes of carbon, each with six protons and differing number of neutrons and therefore different atomic masses: ^{12}C, ^{13}C, and ^{14}C. Compared to the atmosphere, fossil fuels are depleted in heavy isotopes of carbon (^{13}C and ^{14}C) relative to ^{12}C , so the addition of fossil fuel–derived carbon to the atmosphere decreases the ^{13}C signature (the deviation in $^{13}C/^{12}C$ relative to a standard) in atmospheric samples. This phenomenon is referred to as the Suess effect.[13] As demonstrated in Figure 3, the global atmospheric ^{13}C composition has steadily and significantly decreased over time due to the addition of CO_2 derived from fossil fuels.[14] A similar effect can be seen in atmospheric $^{14}C/^{12}C$ signatures, though interpretation is complicated by the addition of ^{14}C to the atmosphere by above-ground nuclear weapons tests in the mid-20th century.[15] Despite carbon isotopic analysis being an established, decades-old technique for unambiguously identifying the source of recent increases in atmospheric CO_2, EPA does not address in the proposed rule or draft CWG report.

Figure 3. Global atmospheric ^{13}C compilation from Graven et al. (2017)[16]



Third, another method to identify the anthropogenic component of climate change is "optimal fingerprinting." The CWG draft report states that optimal fingerprinting was introduced by Allen and Tett (1999); however, a 1993 paper by Klaus Hasselmann described the concept of optimal fingerprints for the detection of climate change.[17] Hasselmann was awarded a Nobel Prize in Physics in 2021 for his work in "reliably predicting global warming."[18] The CWG draft report outlines a series of papers by Ross McKitrick that have challenged the validity of the

[13] Keeling, Charles D. "The Suess effect: ^{13}Carbon-^{14}Carbon interrelations." *Environment international* 2.4-6 (1979): 229-300.

[14] Graven, Heather, et al. "Compiled records of carbon isotopes in atmospheric CO_2 for historical simulations in CMIP6." *Geoscientific Model Development* 10.12 (2017): 4405-4417.

[15] Graven, Heather, Ralph F. Keeling, and Joeri Rogelj. "Changes to carbon isotopes in atmospheric CO2 over the industrial era and into the future." *Global biogeochemical cycles* 34.11 (2020): e2019GB006170.

[16] Graven, Heather, et al. "Compiled records of carbon isotopes in atmospheric CO_2 for historical simulations in CMIP6." *Geoscientific Model Development* 10.12 (2017): 4405-4417.

[17] Hasselmann, Klaus. "Optimal fingerprints for the detection of time-dependent climate change." *Journal of Climate* 6.10 (1993): 1957-1971.

[18] Klaus Hasselmann – Facts – 2021. NobelPrize.org. Nobel Prize Outreach 2025. https://www.nobelprize.org/prizes/physics/2021/hasselmann/facts/. Accessed August 18, 2025.

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optimal fingerprinting method. The most recent of these papers argues that the anthropogenic signal in 20th-century temperature data should be scaled down by 35 to 60% relative to the Fifth Coupled Model Intercomparison Project (CMIP5) outputs; thus, although the *magnitude* of the anthropogenic signal within the 20th-century temperature record is the subject of academic debate, anthropogenic contributions are deemed to be significant by both supporters and critics of the optimal fingerprint method.[19]

The United Nations Intergovernmental Panel on Climate Change (IPCC) comprises hundreds of internationally renowned climate scientists who publish peer-reviewed climate assessments and reports. Their work is considered the international gold standard of climate science, and the IPCC is looked to by other scientific disciplines as a model for international scientific assessment.[20] The IPCC publishes reports that provide the most up-to-date summary of the scientific community's understanding of climate science. A recent IPCC report on the physical science basis of climate change states that "[o]bserved increases in well-mixed greenhouse gas […] concentrations since around 1750 are unequivocally caused by human activities" and notes that the evidence for the human influence on the climate system continues to grow stronger over time.[21] This directly contradicts the proposed rule's claim that "recent data and analyses suggest that attributing adverse impacts from climate change to anthropogenic emissions in a reliable manner is more difficult than previously believed."[22] Human activity is increasing the concentration of CO_2 in the atmosphere at a rate that is "unprecedented" over the past 66 million years, exceeding by a factor of approximately ten the rate of carbon input to the atmosphere observed during the Paleocene-Eocene Thermal Maximum (PETM), a period characterized by significant warming due to a large input of carbon to the atmosphere.[23] This lack of past climate analog presents a challenge for forecasting future climate and also highlights that future disruptions due to climate change may exceed those observed during the PETM.[24]

Human activities have increased planetary surface temperatures

Northern hemisphere temperatures have significantly increased over recent decades relative to preceding centuries based on coupled proxy and instrumental records (Figure 4). Proxy data consist of preserved chemical or physical characteristics that record past climate conditions and act as substitutes for direct temperature measurements. For decades, the scientific community has worked to compile recent temperature proxies and instrumental temperature records,

[19] McKitrick, Ross R. (2025). "Consistent Climate Fingerprinting". *Climate Dynamics,* accepted for publication.
[20] Wanted: an IPCC for biodiversity. *Nature* 465, 525 (2010). https://doi.org/10.1038/465525a
[21] Masson-Delmotte, Valérie, et al. "Climate change 2021: the physical science basis." Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change 2.1 (2021): 2391.
[22] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.
[23] Zeebe, Richard E., Andy Ridgwell, and James C. Zachos. "Anthropogenic carbon release rate unprecedented during the past 66 million years." *Nature Geoscience* 9.4 (2016): 325-329.
[24] *Ibid.*

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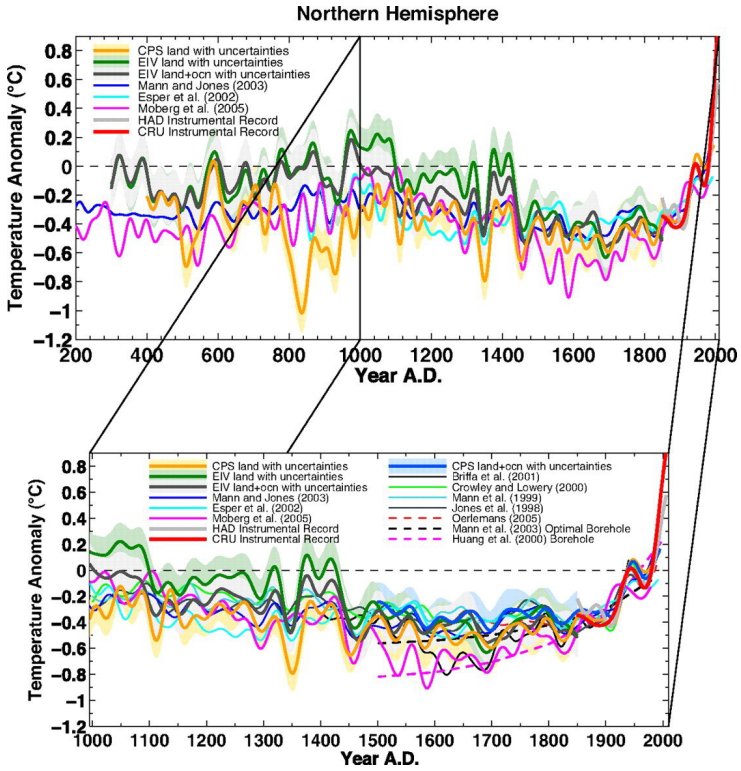
improving the analyses over time and incorporating additional data and measurements.[25, 26, 27] These studies demonstrate that 20th-century warming is anomalous relative to preceding climatic variability. Despite being widely cited and supported in the scientific community, none of these publications are referenced in the proposed rule or draft CWG report. A congressional request to the National Research Council led to the publication of a report in 2007 evaluating the available proxy temperature record literature available at the time of publication; the report finds that it is "plausible that the Northern Hemisphere was warmer during the last few decades of the 20th century than during any comparable period over the preceding millennium" though it does note that there is less confidence in surface temperature reconstructions before A.D. 900 due to the scarcity of proxy data with precise dates available at the time of publication[28]. Subsequent confidence in the temperature record over the recent past has increased due to a larger number of observations. A recent IPCC report on the physical science basis of climate change notes that "[e]ach of the last four decades has been successively warmer than any decade that preceded it since 1850" and that global surface temperature in the first two decades of the 21st century was approximately 1 °C warmer than the period from 1850 to 1900.[29]

Coupled with the information described previously about recent atmospheric CO_2 increases resulting from human activities and the strong link between CO_2 and global surface temperatures, observations of anomalous recent warming can confidently be linked to human activities. The IPCC notes that "[i]t is unequivocal that human influence has warmed the atmosphere, ocean and land."[30] Even relative to other climate anomalies over the past millennia—such as the Medieval Climate Anomaly or the Little Ice Age—recent warming is significantly more pronounced, demonstrating the unprecedented nature of observed climate change over the past two centuries.[31]

[25] Mann, Michael E., Raymond S. Bradley, and Malcolm K. Hughes. "Northern hemisphere temperatures during the past millennium: Inferences, uncertainties, and limitations." *Geophysical Research Letters* 26.6 (1999): 759-762.
[26] Mann, Michael E., et al. "Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia." *Proceedings of the National Academy of Sciences* 105.36 (2008): 13252-13257.
[27] Osman, Matthew B., et al. "Globally resolved surface temperatures since the Last Glacial Maximum." *Nature* 599.7884 (2021): 239-244.
[28] National Research Council, et al. Surface temperature reconstructions for the last 2,000 years. *National Academies Press*, 2007.
[29] Masson-Delmotte, Valérie, et al. "Climate change 2021: the physical science basis." Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change 2.1 (2021): 2391.
[30] *Ibid.*
[31] Mann, Michael E., et al. "Global signatures and dynamical origins of the Little Ice Age and Medieval Climate Anomaly." *Science* 326.5957 (2009): 1256-1260.

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Figure 4. Northern hemisphere temperature reconstruction over the past two millennia. This is Figure 3 from Mann et al. (2008).[32]

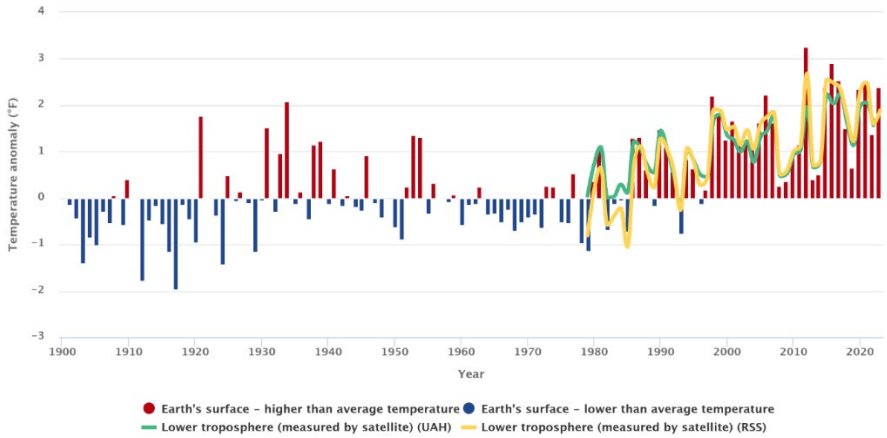


The proposed rule states that "the data suggest that domestic temperatures peaked in the 1930s and have remained more or less stable, in relative terms, since those highs", citing the portion of the CWG draft report that discusses heatwaves.[33] However, the EPA's own reporting states that "[s]ince 1901, the average surface temperature across the contiguous 48 states has risen at an average rate of 0.17 °F per decade," and that "nine of the 10 warmest years on record [in the contiguous United States] have occurred since 1998."[34] Temperature extremes observed in the U.S. in the 1930s are a uniquely domestic phenomenon and have been suggested to be a result of the agricultural practices that led to the Dust Bowl drought.[35] Though there are indeed positive temperature anomalies in the early portion of the 20th century in the U.S., a trend of increasing temperature in recent decades is incontrovertible (Figure 5).

[32] Mann, Michael E., et al. "Proxy-based reconstructions of hemispheric and global surface temperature variations over the past two millennia." *Proceedings of the National Academy of Sciences* 105.36 (2008): 13252-13257.
[33] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.
[34] Climate Change Indicators: U.S. and Global Temperature. https://www.epa.gov/climate-indicators/climate-change-indicators-us-and-global-temperature. Accessed August 14, 2025.
[35] Meehl, Gerald A., et al. "How the Great Plains Dust Bowl drought spread heat extremes around the Northern Hemisphere." *Scientific Reports* 12.1 (2022): 17380.

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Figure 5. Temperatures in the contiguous 48 states in the U.S., 1901-2023.[36]



Climate models

The scientific community's ability to predict surface temperature changes due to CO_2-induced climate-forcing is robust. Climate models estimate climate sensitivity, or the warming that results from a given CO_2 forcing. This can be expressed as equilibrium climate sensitivity (ECS), which refers to the modeled temperature increase resulting from the doubling in atmospheric CO_2 over long timescales or as transient climate response (TCR), which models the change in temperature over a shorter timescale that results from CO_2 increasing by 1% annually until its concentration doubles. Because climate models have existed for decades, their performance can be gauged by comparing predicted and observed global mean surface temperatures (GMSTs). A recent study by Hausfather et al. analyzed 14 separate climate projections, concluding that "climate models published over the past five decades were skillful in predicting subsequent GMST changes, with most models examined showing warming consistent with observations."[37] Differences between observed and predicted CO_2 forcing (i.e., the difference between actual and projected emissions of CO_2) are accounted for when calculating a change in temperature as a function of a change in radiative forcing (or an "implied TCR"), demonstrating the ability of climate models to predict the climate's response to inputs of CO_2 (Figure 6).

Although the CWG draft report notes that TCR "provides a more useful observational constraint on climate sensitivity" relative to equilibrium climate sensitivity in a one-paragraph discussion of TCR, the successful performance of climate models is not discussed. Instead, the CWG draft report provides only a supplementary figure from Hausfather et al. (2020) (mistakenly identified in the CWG draft report as Hausfather et al. [2019]), which compares projected and actual emissions scenarios while ignoring the main conclusions of the study.[38]

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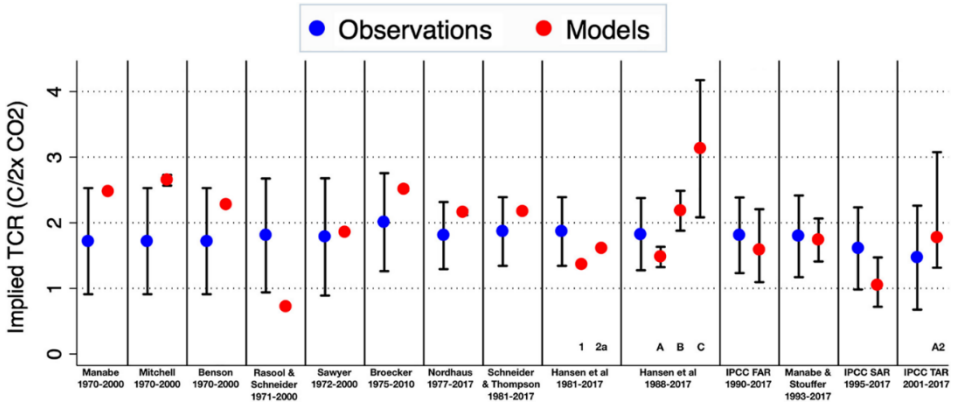
[36] Climate Change Indicators: U.S. and Global Temperature. https://www.epa.gov/climate-indicators/climate-change-indicators-us-and-global-temperature. Accessed August 14, 2025.

[37] Hausfather, Zeke, et al. "Evaluating the performance of past climate model projections." *Geophysical Research Letters* 47.1 (2020): e2019GL085378.

[38] Climate Working Group (2025). "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate." Washington DC: Department of Energy, July 23, 2025

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Figure 6. Performance of climate models in predicting warming as a function of anthropogenic CO_2 forcing. Modified from Figure 2 of Hausfather et al. (2020).[39]



Climate projections

Estimating climate sensitivity (i.e., the warming that results from a given CO_2 forcing) is one component of making climate projections. As described previously, climate models have for decades accurately estimated climate sensitivity. However, climate sensitivity must be coupled with a projection of future greenhouse gas emissions to project future surface temperatures. Emissions scenarios must consider a wide variety of factors including present-day emissions, anticipated trends in fossil energy combustion, population estimates, economic growth projections, technological advances, and future policy scenarios; much of the uncertainty with respect to future emissions therefore involves human decisions or systems which are inherently difficult to predict.

Emissions scenarios are regularly revised based on new information, and it is true that "worst-case" scenarios such as the Representative Concentration Pathway 8.5 or RCP8.5—which have been previously characterized as a "business as usual" scenario—are no longer realistic.[40] The proposed rule claims that the fact that GHG emissions have tracked optimistic IPCC scenarios may be explained by a "greater capacity for the climate [*sic*] to reuptake GHGs in the atmosphere through natural processes," such as through sequestration by terrestrial ecosystems and oceans.[41] However, as noted by the CWG draft report, the fraction of anthropogenic CO_2 emissions sequestered by natural sinks (approximately half) is relatively invariant over time, so although the magnitude of sequestered carbon is increasing, the proportion of emissions that are

[39] Hausfather, Zeke, et al. "Evaluating the performance of past climate model projections." *Geophysical Research Letters* 47.1 (2020): e2019GL085378.
[40] Hausfather, Zeke, and Glen P. Peters. "Emissions–the 'business as usual' story is misleading." *Nature* 577.7792 (2020): 618-620.
[41] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.

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sequestered is not.[42] The response of the carbon cycle to future emissions is also unclear.[43] Critically, the observation that previous emissions scenarios tend to overestimate future CO_2 forcing when compared to subsequent observations *partially reflects recent progress in reducing emissions relative to a high-emissions scenario* and does not imply that underlying climate sensitivity is not well-understood.[44] Emissions scenarios should be treated with care, and it is a reasonable critique that worst-case projections have been conflated with a "business as usual" or likely outcome. Nonetheless, a recent evaluation of plausible emissions scenarios by Pielke Jr. et al. demonstrates that global temperatures increases are likely to exceed 2 °C by the end of the 21st century.[45] Although emissions projections may be following relatively optimistic scenarios, they significantly exceed emissions required to reach warming threshold targets such as 1.5 °C. As noted by the IPCC, exceeding 1.5 °C in warming involves additional severe risks compared to remaining below 1.5 °C with high confidence.[46]

Climate change impacts

The preceding sections of this comment illustrate that human activities have meaningfully increased the atmospheric concentration of CO_2, the primary control on climate, which is leading to an enhanced greenhouse effect and warmer planetary surface temperatures. A reasonable question is "what are the anticipated impacts of this anthropogenic CO_2 and associated warming?" The preponderance of scientific evidence suggests that climate change is a net disbenefit to humanity, and therefore anthropogenic emissions of greenhouse gases that lead to climate change should be reduced. The proposed rule and CWG draft report disproportionately focus on neutral or positive aspects of climate change while minimizing the numerous and significant negative effects that are briefly summarized below.

The IPCC Sixth Assessment synthesis report states with high confidence that "[h]uman-caused climate change is already affecting many weather and climate extremes in every region across the globe. This has led to widespread adverse impacts on food and water security, human health and on economies and society and related losses and damages to nature and people."[47] Similarly, the fifth congressionally-mandated U.S. National Climate Assessment (NCA) published in 2023 notes that wide-ranging current and future domestic climate risks include threats to safe and reliable

[42] Climate Working Group (2025). *A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate*. Washington DC: Department of Energy, July 23, 2025

[43] Huntzinger, D. N., et al. "Uncertainty in the response of terrestrial carbon sink to environmental drivers undermines carbon-climate feedback predictions." *Scientific Reports* 7.1 (2017): 4765.

[44] Hausfather, Zeke, et al. "Evaluating the performance of past climate model projections." *Geophysical Research Letters* 47.1 (2020): e2019GL085378.

[45] Pielke Jr, Roger, Matthew G. Burgess, and Justin Ritchie. "Plausible 2005-2050 emissions scenarios project between 2 and 3 degrees C of warming by 2100." *Environmental Research Letters* (2022).

[46] IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-33, doi:10.1017/9781009325844.001.

[47] Lee, Hoesung, et al. *Climate change 2023: synthesis report. Contribution of working groups I, II and III to the sixth assessment report of the intergovernmental panel on climate change*. 2023.

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water supplies; disruptions to food systems; sea level rise impacts on homes and property; damaged and disrupted infrastructure; new and worsening health challenges; ecosystem transformations; slowed economic growth; threats to regional economies and livelihoods; shifting job opportunities; and disrupted cultures, heritages, and traditions.[48] The recent removal of all previously published NCAs from the government web page that hosts the assessments does not diminish the scientific accuracy of the NCAs nor their importance for decision and policy makers since the first NCA was published in 2000.[49] The proposed rule suggests that "several public watchdog organizations have raised concerns related to the process and quality of the Fifth NCA", although no references or counterpoints are provided so the alleged concerns cannot be assessed.[50]

As detailed in IPCC reporting, limiting warming to 1.5 °C has "clear benefits" compared to warming 2 °C or more considering impacts such as temperature extremes, sea level rise, the probability of drought and associated water stress, terrestrial and marine ecosystem impacts, and mitigation costs.[51] The IPCC notes with high confidence that "human-induced climate change, including more frequent and intense extreme events, has caused widespread adverse impacts and related losses and damages to nature and people, beyond natural climate variability" and that a "rise in weather and climate extremes has led to some irreversible impacts as natural and human systems are pushed beyond their ability to adapt."[52] A significant fraction of species are vulnerable to climate change, and the IPCC notes that "human and ecosystem vulnerability are interdependent" with high confidence.[53] Future impacts of climate change are expected to be increasingly severe, in part due to interaction between simultaneous climate hazards and risks which may be difficult to manage.[54]

Some impacts of anthropogenic CO_2 emissions may indeed be neutral or positive, though these impacts are overwhelmingly outweighed by negative impacts. For example, "global greening" or increased global leaf coverage via enhanced CO_2 fertilization of plants is suggested to enhance the terrestrial carbon sink (which takes up a *portion* of anthropogenic CO_2 emissions; see Figure 2).[55, 56] A significant portion of greening has been suggested to be the result of human

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[48] Crimmins, Allison R., et al. "Fifth national climate assessment." (2023).
[49] https://nca2023.globalchange.gov/. Accessed August 26, 2025.
[50] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.
[51] Masson-Delmotte, Valérie, et al. "Global warming of 1.5 C." An IPCC Special Report on the impacts of global warming of 1.5 (2018): 43-50.
[52] IPCC, 2022: Summary for Policymakers [H.-O. Pörtner, D.C. Roberts, E.S. Poloczanska, K. Mintenbeck, M. Tignor, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem (eds.)]. In: Climate Change 2022: Impacts, Adaptation, and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 3-33, doi:10.1017/9781009325844.001.
[53] *Ibid*.
[54] *Ibid*.
[55] Zhu, Zaichun, et al. "Greening of the Earth and its drivers." *Nature climate change* 6.8 (2016): 791-795.
[56] Ruehr, Sophie, et al. "Evidence and attribution of the enhanced land carbon sink." *Nature Reviews Earth & Environment* 4.8 (2023): 518-534.

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land-use practices, indicating that additional work is needed to constrain the benefit of increased CO_2 alone on plant growth.[57] It is also true that globally, cold-related deaths are more prevalent than heat-related deaths, though in some areas the increase in heat-related deaths due to global warming may outweigh any reductions in cold-related deaths expected with future warming.[58]

Comment 2: Climate change impacts in New Mexico are already being felt and are projected to increase with time.

Climate change is a global challenge with localized impacts. The southwestern U.S. is feeling the impacts of climate change acutely and will continue to experience increasingly severe climate impacts that affect the wellbeing of the region's people, ecosystems, and economy.

The Sixth Assessment Report of the IPCC finds that summer daily maximum temperature is increasing in Southwest U.S. desert regions,[59] total precipitation is projected to decrease in the Southwest U.S.,[60] climate change is projected to reduce groundwater recharge in major southwest U.S. aquifers,[61] projected long-term reduction in water availability in the Southwest (e.g., from the Colorado River and Rio Grande) will have substantial ecological and economic impacts given the region's heavy water demands,[62] and projected aridification will reduce forage production, affecting the region's livestock industry.[63] These findings are echoed by the Fifth NCA, which reports with very high confidence that climate change has reduced surface water and groundwater availability for people and nature in the Southwest, with high confidence that there are inequities in how these impacts are experienced, with high confidence that higher temperatures have intensified drought and will lead to a more arid future, and with high confidence that, without adaptation, these changes will exacerbate existing water supply–demand imbalances.[64] The NCA summarizes peer-reviewed research that finds that increasing temperatures are leading to hotter extreme heat events, drier soils, greater atmospheric evaporative demand, and reduced flows in major river basins, including New Mexico's Rio

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[57] Chen, Chi, et al. "China and India lead in greening of the world through land-use management." *Nature Sustainability* 2.2 (2019): 122-129.

[58] Masselot, Pierre, et al. "Estimating future heat-related and cold-related mortality under climate change, demographic and adaptation scenarios in 854 European cities." *Nature Medicine* 31.4 (2025): 1294-1302.

[59] Hicke, J.A., S. Lucatello, L.D., Mortsch, J. Dawson, M. Domínguez Aguilar, C.A.F. Enquist, E.A. Gilmore, D.S. Gutzler, S. Harper, K. Holsman, E.B. Jewett, T.A. Kohler, and KA. Miller, 2022: North America. In: Climate Change 2022: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [H.-O. Pörtner, D.C. Roberts, M. Tignor, E.S. Poloczanska, K. Mintenbeck, A. Alegría, M. Craig, S. Langsdorf, S. Löschke, V. Möller, A. Okem, B. Rama (eds.)]. Cambridge University Press, Cambridge, UK and New York, NY, USA, pp. 1929–2042, doi:10.1017/9781009325844.016, page 1936.

[60] Ibid., page 1937

[61] Ibid., page 1953

[62] Ibid., page 1953

[63] Ibid., page 1956

[64] US Global Change Research Program. 2023. Fifth National Climate Assessment. Crimmins, Allison R.; Avery, Christopher W.; Easterling, David R.; Kunkel, Kenneth E.; Stewart, Brooke C.; Maycock, Thomas K. (editors). Washington, DC: US Global Change Research Program. Page 28-9.; see also EPA, "What Climate Change Means for New Mexico," August 2016, EPA 430-F-16-033.

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Grande.[65] The Assessment notes that since 2000 the Southwest has experienced an exceptional "megadrought," marking the first two decades of the 20th century as the driest 22-year period in 1,200 years.[66] Annual temperatures in the Southwestern U.S. are projected to rise 1.4–1.7 °C by 2021–2050, 1.9–2.5 °C by 2041–2070, and 2.5– 4.4 °C by 2071–2099 compared to 1971–2000, with increase more pronounced in summer and fall.[67] Increasing temperatures will result in more frequent and prolonged heat waves, lengthen the frost-free season by 25–40 days, increase evapotranspiration, decrease snowpack volume, especially at the lowest elevations currently accumulating snow, affect the timing and duration of snowmelt in mountainous regions, which in turn will affect water availability.[68] Precipitation is projected to decrease in the Southwest 1–1.5% by 2021–2050, 3–4% by 2041–2070 and 2–5.5% by 2071–2099, with the most dramatic decreases expected to occur in the spring and summer.[69]

In short, the people and ecosystems of New Mexico are already being negatively affected by climate change, and these impacts will become more severe as climate change worsens. In a 2013 report, the U.S. Bureau of Reclamation found that temperatures in the Upper Rio Grande Basin, covering New Mexico and Southern Colorado, rose at a rate of just under 0.7 °F per decade, a rate double the global rate of temperature increase and unprecedented over the last 11,300 years.[70] The Bureau projected that the Basin may rise by an additional 4-6 °F by the end of the 21st century. Impacts include hotter temperatures, scarcer water resources, less predictable precipitation, increased wildfire risk, stressed ecosystems, and challenges to agriculture, infrastructure, and public health. The economic consequences of these impacts will be costly. A 2009 analysis by Sandia National Laboratories estimated the economic costs of climate change across the country from 2010-2050. For New Mexico, they estimate a loss in 2008 dollars of $26.1 billion using a discount rate of 0.0%, a loss of $17.9 billion using a discount rate of 1.5%, a loss of $12.7 billion using a discount rate of 3.0%. Additionally, they estimate an employment loss of 217,600 labor years and a population loss of 8,300 people.[71] New Mexico has a vested interest in slowing climate change, through abatement of greenhouse gas emissions, to protect its people and resources.

Threats to Water Resources

The most severe and far-reaching climate change impacts on New Mexico are threats to the state's water resources. The state reports that in the next fifty years New Mexico will have 25% less water resources and a shortage of 750,000 acre-feet of water, which is insufficient to meet

[65] Ibid.
[66] Ibid.
[67] Hurteau, M. D., Bradford, J. B., Fulé, P. Z., Taylor, A. H., & Martin, K. L. (2014). Climate change, fire management, and ecological services in the southwestern US. *Forest Ecology and Management*, *327*, 280-289.
[68] Ibid.
[69] Ibid.
[70] Roach, J. D., & Llewellyn, D. (2013). *West Wide Climate Risk Assessment Upper Rio Grande Impacts Assessment Executive Summary April 17 2013* (No. SAND2013-3404P). Sandia National Lab.(SNL-NM), Albuquerque, NM (United States).
[71] Backus, G. A. (2011). *Assessing the Near-Term Risk of Climate Uncertainty: Interdependencies Among the US States* (No. SAND2011-7846C). Sandia National Lab.(SNL-NM), Albuquerque, NM (United States).

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the state's water needs.[72] Increased water scarcity will affect all parts of the state, but impacts will vary across regional ecosystems. Native landscapes, vegetation, and soils will suffer negative effects, including: widespread conversion of forests to shrublands and grasslands; reduction in vegetation cover and infiltration of rainfall; increased overland runoff, flooding, and arroyo incision; atmospheric dustiness; and upland erosion by overland flow and downstream sediment deposition.[73] Higher temperatures drive increased evapotranspiration and decreased snowpack, both of which lead to decreases in surface water supplies.[74]

In the high mountain regions of the state, declines in winter snowpack will affect mountain ecosystems and lead to less runoff, which will cause downstream effects in other regions of the state. Reductions in snowpack starve mountainous plant and animal communities of water, destabilize the soil, and lead to erosion that decreases water infiltration into aquifers and enables flash flooding. In the state's northwestern high desert, temperature increases drive aridification, drying out the thin soil layer that sits atop bedrock, which gets picked up by the wind and deposited on snowpack causing it to melt faster and impeding water infiltration into aquifer. With less water, high desert grassland communities convert to shrubland, and high desert riparian plant communities, which depend on mountain-fed flows, will die back. In the Rio Grande River Valley, warming will cause significantly attenuated water flows, threatening the state's water supplies for drinking water, irrigation, and ecosystem functioning. The Valley will also experience the same warming-driven impacts as other regions of the state: elevated vegetation water stress and widespread transitions from grasses to shrubs; bosque riparian forest die-offs due to dropping shallow aquifer levels; loss of upland soils and increased dustiness by amplified water and wind erosion; increased sedimentation; and compromised surface water quality.[75] The eastern plains region of the state will experience the highest rate of aridification due to decreased precipitation. Thin, fragile soils in this region are highly susceptible to windblow erosion; with higher rates of evapotranspiration due to warming, less precipitation, and depleted aquifers, the region will experience desertification.[76] The impacts of climate change will be felt severely in all biomes in the state, with consequences for human, animal, and plant communities.

Climate change impacts on the Rio Grande River are particularly devastating to the state. Reduced snowpack has led sections of the Rio Grande, the lifeblood of the state, to run dry since 2022, resulting in damage to riverine and riparian habits, lack of irrigation water for farmers, and a shift from surface water stored in reservoirs to groundwater for drinking water supplies. The Middle Rio Grande Conservancy District has not been able to store native Rio Grande water for non-Pueblo users since 2020 and is currently using groundwater to meet Albuquerque's drinking water needs, drawing down a finite underground water supply.[77] Agricultural water users will be

[72] State of New Mexico, "50-Year Water Action Plan," https://www.nm.gov/wp-content/uploads/2024/01/New-Mexico-50-Year-WaterAction-Plan.pdf

[73] Dunbar, N., Gutzler, D., Perthree, K., Phillips, F., Allen, C. D., Dubois, D., ... & Hobbs, K. (2022). Climate Change and New Mexico's Water Resources: A 50-Year Outlook. *New Mexico Earth Matters*.

[74] Gutzler, D. S. (2013). Climate and drought in New Mexico. *Water Policy in New Mexico*, 56-70.

[75] Dunbar, N., Gutzler, D., Perthree, K., Phillips, F., Allen, C. D., Dubois, D., ... & Hobbs, K. (2022). Climate Change and New Mexico's Water Resources: A 50-Year Outlook. *New Mexico Earth Matters*. Page 4.

[76] Ibid.

[77] https://www.krqe.com/news/albuquerque-metro/rio-grande-once-again-goes-dry-in-albuquerque/

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severely affected by increasing water scarcity, as water is preferentially transferred to maintain urban and industrial users, whose economic productivity is greater. Total annual economic losses are estimated in the vicinity of $300 million; under severe climate changes, where runoff is reduced by nearly 30%, both economic and non-economic losses are likely to be significantly higher.[78]

Threats to Ecosystems

Climate change affects ecosystems directly by changing the conditions that allow organisms to thrive in concert. Hotter annual temperatures, more frequent extreme heat events, extreme and prolonged drought, more variable precipitation, and decline of snowpack and surface water flows all fundamentally alter the biotic and abiotic conditions of ecosystems. Climate change-induced disturbances in ecosystems are most pronounced at the boundaries between ecosystem types, where plant and animal communities are vulnerable to small shifts in ecosystem conditions. When ecosystems experience conversion due to climatic shifts, there is no way to transition back to prior conditions. The New Mexico Department of Game and Fish reported that in Northern New Mexico in the 1950s severe drought led to a rapid and lasting shift from ponderosa pine forest to piñon-juniper woodland.[79] Climate change impacts also intensify existing stressors on ecosystems. Hotter and drier conditions make trees water-stressed, which in turn makes them more vulnerable to pests and diseases, including bark beetles, which have ravaged Western conifer forests.

Every biome in New Mexico is affected by climate change. Grasslands are particularly vulnerable to invasion by woody species under a changing climate, for example the replacement of grama grass by creosote in central New Mexico, driven by drought and increased winter precipitation. High-elevation forest tree species will experience range contractions as suitable climates disappear, with the most drastic impacts on alpine and subalpine species. Alpine forests may disappear entirely. Mid- and lower-elevation forests and woodlands will be more susceptible to increased fire and drought conditions at lower elevations. Water stress will affect all forest types, increasing vulnerability to insect outbreaks, disease, and wildfire, all of which are expected to increase in frequency, intensity, and geographic extent. Piñon pines, a keystone species in New Mexico, are highly susceptible to bark beetle and twig beetle infestation. Warmer temperatures aid beetle proliferation, while drought renders pines more susceptible to beetle-driven mortality. Intense droughts, insect outbreaks, and wildfires have already resulted in widespread tree mortality across the southwest, and if modeled predictions hold true, it's estimated that about half of the needle-leaved evergreen forest cover in this region will be converted to shrub and grass cover by the end of the 21st century.[80] In riparian ecosystems, cottonwoods and willows, keystone species that are dependent on near-continuous availability of shallow groundwater, are threatened by reduced stream flow and lowering water tables. Non-native deeper rooted and drought-tolerant species, like exotic tamarisk, Russian olive, salt cedar, and Siberian elm are taking

[78] Brian H. Hurd and Julie Coonrod, "Climate Change and Its Implications for New Mexico's Water Resources and Economic Opportunities," Technical Report 45 (2008).
[79] New Mexico Department of Game and Fish. 2016. State Wildlife Action Plan for New Mexico. New Mexico Department of Game and Fish, Santa Fe, New Mexico, USA. Page 74
[80] Ibid. Page 75.

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their place, altering riparian plant community composition. In addition, changes in the timing of either seed dispersal or spring runoff events may limit successful reproduction of the cottonwood-willow riparian community, impacting the many species that depend upon riparian ecosystems for all or part of their life cycle.[81] Climate change will decrease the availability of cold water stream habitats on which cold-adapted species depend, while at the same time reducing the availability and quality of perennial warm water systems due to drought and intense heat, compounded by water extraction and spread of invasive species. Perennial and ephemeral wetlands are particularly vulnerable to changes in precipitation and warming. In desert ecosystems, rising summer temperatures degrade protective desert soil crusts formed by communities of algae, bacteria, lichens, fungi, or mosses, resulting in biodiversity loss and wind erosion that increases airborne dust loads.[82]

Species that are especially vulnerable to climate change impacts are those already at risk of extinction, specialist and sedentary species, and taxa endemic to mountainous regions.[83] Fish and riparian species are affected by warmer water temperatures, earlier peak flows, increased rainfall variability, and lower summer base flows. Migratory bird species are vulnerable to habitat changes and changes in resource availability on wintering grounds, breeding sites, and stopover sites. Reptiles are particularly vulnerable to increased temperatures, given their dependence on ambient temperatures for thermal regulation, and amphibians are dependent on water availability for survival. Among mammals, species that are geographically isolated or migratory are most vulnerable. Species are coping with multiple, overlapping sources of pressure, including reduction of native habitat, competition with invasive species, and pathogens. Climate change impacts add additional pressures that compound existing threats.

Wildfires and Flash Flooding

Warming temperatures, drought, and earlier snowmelt have been linked to an increasing number of large fires in the Western U.S. since the 1980s.[84] Wildfires in the Southwest in the past two decades have been more frequent, larger, and more severe. Severe drought and increased temperatures in the Southwest since the late 1990s have resulted in substantial vegetation mortality across millions of hectares of woodlands and forests in the first decades of the twentieth century, building up fuel stocks that exacerbate wildfires.[85] A 2025 study tracked distinct, ecosystem-specific responses to climate changes in Arizona and New Mexico: in conifer forests, prolonged drought and rising vapor pressure deficits drive larger and more severe wildfires; in

[81] Ibid. Page 77.
[82]US Global Change Research Program. 2023. Fifth National Climate Assessment. Crimmins, Allison R.; Avery, Christopher W.; Easterling, David R.; Kunkel, Kenneth E.; Stewart, Brooke C.; Maycock, Thomas K. (editors). Washington, DC: US Global Change Research Program. Page 28-18
[83] New Mexico Department of Game and Fish. 2016. State Wildlife Action Plan for New Mexico. New Mexico Department of Game and Fish, Santa Fe, New Mexico, USA. Page 83.
[84] Westerling, A. L. (2016). Increasing western US forest wildfire activity: sensitivity to changes in the timing of spring. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *371*(1696), 20150178; Dennison, P. E., Brewer, S. C., Arnold, J. D., & Moritz, M. A. (2014). Large wildfire trends in the western United States, 1984–2011. *Geophysical Research Letters*, *41*(8), 2928-2933.
[85] Allen, C. D. (2007). Interactions across spatial scales among forest dieback, fire, and erosion in northern New Mexico landscapes. *Ecosystems*, *10*(5), 797-808.

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shrublands and grasslands, wildfire risk is often tied to precipitation variability—wet periods that stimulate fine fuel growth, followed by warm, dry conditions that promote the spread of fire; the growth of invasive grasses has further heightened fire risk in shrubland and desert ecosystems by enhancing fuel connectivity and transforming fire-climate dynamics in historically fuel-limited regions.[86]

Wildfires endanger human life and property, change the composition of ecosystems, are economically costly, and impact human health through degradation of air quality. The two largest wildfires in New Mexico recorded history have occurred in the past three years. In 2022, the Calf Canyon/Hermits Peak Fire burned 341,735 acres in northern New Mexico, and the Black Fire burned 325,136 acres in Southwestern New Mexico. Increased frequency and severity of wildfire selects for species that are more fire-adapted. However, post-fire plant life may not resemble pre-existing native plant communities.[87] Wildfires drive vegetation conversion in the Southwest, particularly from forests to shrublands, which impacts watersheds and aquatic resources through degradation of riparian systems, risks to riparian and riverine species, and increased invasions by non-native species.[88] Post-fire ecosystem recovery is further hindered by climate-induced aridification that limits tree seedling and shrub establishment.[89] An analysis of severe wildfires in New Mexico in 2022, unparalleled in the state's history, found significant impacts on air quality—six large wildfires emitted 152 thousand tons of fine particulate matter ($PM_{2.5}$) and 287 thousand tons of volatile organic compounds to the atmosphere. Exposure to wildfire-generated $PM_{2.5}$ was responsible for 171 excess cases of asthma emergency department visits and 18 deaths.[90] Wildfires leave burn scars, removing plant life that previously soaked up rain and leaving soil hydrophobic. On top of soil already hardened by decades-long drought, rainstorms rapidly turn into flash floods, threatening local communities. Over the past year, the village of Ruidoso, New Mexico, has been the victim of sequential flash flooding events after suffering the South Fork and Salt wildfires in 2024. On July 8, 2025, the Rio Ruidoso crested at a record-breaking 20.24 feet, causing a flood that damaged 200 homes and took the lives of three people, including two children. After the 2024 fires, the river has crested at or over ten feet seven times. On Sunday, August 17, the village was subject to its 28th flood warning of the year.[91] The damage caused by

[86] Crimmins, M. A., Geli, H. M., Greene, C., Meko, M., & Prihodko, L. (2025). Changing Climate, Changing Fire: Understanding Ecosystem-Specific Fire-Climate Dynamics in Arizona and New Mexico. *Earth Interactions*, *1*(aop).
[87] McKenzie, D., Gedalof, Z. E., Peterson, D. L., & Mote, P. (2004). Climatic change, wildfire, and conservation. *Conservation biology*, *18*(4), 890-902.
[88] US Global Change Research Program. 2023. Fifth National Climate Assessment. Crimmins, Allison R.; Avery, Christopher W.; Easterling, David R.; Kunkel, Kenneth E.; Stewart, Brooke C.; Maycock, Thomas K. (editors). Washington, DC: US Global Change Research Program. Page 28-27.
[89] Ibid. Page 28-28.
[90] Maji, K. J., Ford, B., Li, Z., Hu, Y., Hu, L., Langer, C. E., ... & Russell, A. G. (2024). Impact of the 2022 New Mexico, US wildfires on air quality and health. *Science of the Total Environment*, *946*, 174197.
[91] https://www.abqjournal.com/news/article_32450742-9e0b-4875-ae41-c043617fa7ce.html; https://apnews.com/article/flash-floods-new-mexico-mountain-village-ruidoso-350c1673cdc9c41796d1319e19914314

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the July 8 flood alone is estimated to require $100 million to rebuild and mitigate future flood events.[92]

Impacts on Agriculture

The Fifth National Climate Assessment states, with high confidence, that continuing drought and water scarcity will make it more difficult to raise food and fiber in the Southwest and extreme heat events will increase animal stress and reduce crop quality and yield, thereby resulting in widespread economic impacts.[93] Projections show that by midcentury the Southwest will experience longer, hotter growing seasons, a northward shift in plant hardiness zones, and expanded areas of heat stress exposure to crops and livestock.[94] The livelihoods of farmers and ranchers and the agricultural productivity of the state are threatened by prolonged, severe drought. Increased temperatures drive higher rates of evapotranspiration, increasing demand for fresh water for irrigation, and decrease snowpack, which results in reduced surface water for irrigation. Generational farming communities dependent on acequia irrigation, dryland farmers growing rain-fed crops, and producers raising livestock on rangelands are particularly vulnerable to reduced water supplies.[95] The impact of rising temperatures on New Mexico cereal crop production is causing forage yield declines.[96] This, together with the supplanting of cereal forage with woody plants, is affecting New Mexico livestock production. These impacts hit Tribal Nations especially hard; researchers at Utah State University estimated the economic impacts of ongoing drought on the cattle industry on Tribal lands in New Mexico to range from $193,000 on Mescalero Apache Tribal land to $2.896 million for Navajo Nation, with total economic losses of $4.481 million for the Tribal lands in New Mexico evaluated in the study .[97]

Disparate Impacts

Climate change impacts in New Mexico are not felt equally across the state's populations. Indigenous nations and low-income communities in the state are more vulnerable to climate change impacts. The Fifth National Climate Assessment highlights the compounding impacts of climate change-induced water scarcity on already water insecure Indigenous nations in the Southwest.[98] Low-income communities that lack access to air conditioning, agricultural workers, and unhoused populations are vulnerable to heat-related illness and death as extreme heat days have grown more numerous during New Mexico summers. Workers who labor outdoors are more vulnerable to particulate matter air pollution generated by wildfires and more frequent dust

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[92] https://apnews.com/article/flash-floods-new-mexico-mountain-village-ruidoso-350c1673cdc9c41796d1319e19914314

[93] US Global Change Research Program. 2023. Fifth National Climate Assessment. Crimmins, Allison R.; Avery, Christopher W.; Easterling, David R.; Kunkel, Kenneth E.; Stewart, Brooke C.; Maycock, Thomas K. (editors). Washington, DC: US Global Change Research Program. Page 28-18.

[94] Ibid.

[95] Ibid.

[96] Sawalhah, M. N., Holechek, J. L., Cibils, A. F., Geli, H. M., & Zaied, A. (2019). Rangeland livestock production in relation to climate and vegetation trends in New Mexico. *Rangeland Ecology & Management*, *72*(5), 832-845.

[97] Drugova, T., Curtis, K. R., & Kim, M. K. (2021). Impacts of Drought on Tribal Economies in New Mexico.

[98] US Global Change Research Program. 2023. Fifth National Climate Assessment. Crimmins, Allison R.; Avery, Christopher W.; Easterling, David R.; Kunkel, Kenneth E.; Stewart, Brooke C.; Maycock, Thomas K. (editors). Washington, DC: US Global Change Research Program. Page 28-11.

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events driven by climate change-induced aridification, to ground-level ozone, which is exacerbated by higher temperatures, and to Valley Fever (coccidioidomycosis), the incidence of which is increasing due to higher air temperatures and drier soils.[99] New Mexico has a vested interest in protecting these vulnerable communities from increasingly severe impacts of climate change.

Economic and health effects of climate pollution mitigation

Mitigating climate pollution has positive economic and health effects. In a recent study, the Environmental Defense Fund (EDF) found that methane mitigation jobs in the U.S. are growing and that the industry is "turning waste into economic value."[100] Companies in the methane mitigation space include both those that manufacture methane mitigation technologies and service firms. The number of companies specializing in methane mitigation increased by 24% from 2021 to 2024. Median wages in both spaces are high, at $127,000 and $145,000 for manufacturing and service respectively.[101] Given the significant oil and gas production in New Mexico, methane mitigation therefore presents a significant economic opportunity for companies and individuals in the state.

Greenhouse gases are emitted along with co-pollutants, or substances that have negative environmental or health impacts. Thus, by mitigating climate pollution, other benefits are realized. A recent study situated in Loving, New Mexico by an international team of researchers shows that the region's air quality is among the worst in the country with respect to ozone.[102] By limiting climate pollutant emissions from the oil and gas industry, ozone concentrations will also be reduced. Ozone has been linked to "school absenteeism due to respiratory illnesses, medication use, respiratory problems associated with asthma, decreased respiratory functions, and increased hospital admissions for asthma," highlighting a need to reduce its atmospheric concentration in New Mexico.[103]

Comment 3: EPA has not presented the impact of domestic emissions and the benefits of regulating domestic emissions in an accurate manner.

Greenhouse gases are emitted through human activities including fuel combustion, resource extraction, agriculture, and industrial processes. In 2023, the most recent year for which a U.S.-wide greenhouse gas emissions inventory is available, gross emissions in the U.S. were approximately 6,200 million metric tons on a CO_2-equivalent basis (MMT CO_2e) as calculated by the EPA.[104] The same year, the U.S. population was estimated to be approximately 337 million

[99] Ibid. Page 28-22.
[100] https://www.edf.org/methane-mitigation-jobs-are-rise. Accessed September 11, 2025.
[101] *Ibid.*
[102] https://www.documentcloud.org/documents/25952717-wnr-102824-item-4-bair-setbacks/. Accessed September 11, 2025.
[103] Salonen, Heidi, Tunga Salthammer, and Lidia Morawska. "Human exposure to ozone in school and office indoor environments." *Environment international* 119 (2018): 503-514.
[104] United States Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2023. https://www.edf.org/freedom-information-act-documents-epas-greenhouse-gas-inventory?tab=complete_report. Accessed August 11, 2025.

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people; per capita emissions in the U.S. in 2023 were therefore approximately 18.4 metric tons (MT) CO_2e.[105] Transportation emissions were responsible for approximately 29% of gross US emissions in 2023, making transportation the largest-emitting domestic economic sector in 2023.[106]

For comparison, the independent research organization Rhodium Group estimates that global gross greenhouse gas emissions in 2023 were 50,650 MMT CO_2e.[107] Coupled with a global population estimate of nearly 8 billion people, global average per capita greenhouse emissions in 2023 were approximately 6.3 MT CO_2e per person.[108] The U.S. therefore was responsible for approximately 12 percent of global greenhouse gas emissions in 2023, and at a per capita level of nearly three times the global average. These emissions figures are more recent than (but broadly consistent with) those presented for calendar year 2022 in the proposed rule, though per capita emissions are not considered.[109] Emissions can also be considered on a cumulative basis. According to a recent estimate, the U.S. has emitted 24% of all anthropogenic greenhouse gases from 1850 to 2023.[110]

The New Mexico Environment Department disagrees with EPA's rationale that because the U.S. is not the primary source of greenhouse gas emissions today (i.e., nearly 90% of greenhouse gas emissions today are emitted by other countries) and that because the *warming* resulting from domestic transportation sector emissions is "below the scientific threshold for measurability," domestic greenhouse gas emissions from the transportation sector should therefore should not be mitigated.[111] In fact, domestic transportation emissions are readily quantifiable: EPA estimates that in 2023, transportation emissions in the U.S. were approximately 1,800 MMT CO_2e, and given the unambiguous link between anthropogenic emissions and warming, it is indisputable that these emissions do indeed contribute to climate change.[112] EPA's rationale is fundamentally

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[105] United States Census Bureau. "National Population Totals and Components of Change: 2020-2024." December 2024. https://www.census.gov/data/tables/time-series/demo/popest/2020s-national-total.html. Accessed August 11, 2025.

[106] United States Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2023. https://www.edf.org/freedom-information-act-documents-epas-greenhouse-gas-inventory?tab=complete_report. Accessed August 11, 2025.

[107] Rivera et al. "Global Greenhouse Gas Emissions: 1990-2022 and Preliminary 2023 Estimates." Rhodium Group. November 26, 2024.

[108] United States Census Bureau. International Database (IDB). https://www.census.gov/datatools/demo/idb/#/dashboard?dashboard_page=country&COUNTRY_YR_ANIM=2023&COUNTRY_YEAR=2023. Accessed August 11, 2025.

[109] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.

[110] Friedlingstein, Pierre, et al. "Global carbon budget 2024." *Earth System Science Data Discussions* 2024 (2024): 1-133.

[111] Environmental Protection Agency Proposed Rule. *Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards*. EPA-HQ-OAR-2025-0194; FRL-12715-01-OAR. Federal Register Vol. 90, No 146. August 1, 2025.

[112] United States Environmental Protection Agency. Inventory of U.S. Greenhouse Gas Emissions and Sinks, 1990-2023. https://www.edf.org/freedom-information-act-documents-epas-greenhouse-gas-inventory?tab=complete_report. Accessed August 11, 2025.

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flawed: the fact that the exact temperature increase resulting from U.S. transportation emissions alone are within the uncertainty bounds of global warming trends does not mean U.S. transportation emissions do not contribute to warming. Furthermore, a country is responsible for regulating its own pollution because that is where the country's environmental agencies have regulatory oversight, and because *not* regulating emissions on this basis leads to a "tragedy of the commons" scenario.[113] Greenhouse gases are well-mixed, so the consequences of emissions (and emissions reductions) are globally distributed. Thus, it is important for *every* jurisdiction to work together to achieve climate goals and appreciate the collective benefits. Although the benefits of reducing transportation-sector emissions from the U.S. alone may be difficult to measure, in the aggregate, policies to reduce greenhouse gas emissions can have a significant impact on anthropogenic emissions and resultant warming.

The most recent year for which New Mexico has a published greenhouse gas emissions inventory is 2021. Although New Mexico's gross greenhouse gas emissions in 2021 were only a small fraction of U.S. (~1.3%) or global (~0.17%) emissions during the same year. NMED and other state agencies view the emissions that the departments *do* have regulatory jurisdiction over as a driver for adopting bold policies to curb greenhouse emissions -- like New Mexico's methane waste rule and emerging Clean Transportation Fuel Program.[114,115] New Mexico is taking action to reduce climate pollution even though its emissions are relatively small compared to global emissions, and this is the approach that should be adopted at all levels in order to achieve global climate goals.

Comment 4: EPA's analysis of the impacts of regulating transportation greenhouse gas emissions is inadequate.

The New Mexico Environment Department is committed to controlling air and climate pollution from the transportation sector, as demonstrated by the adoption of the Advanced Clean Cars II, Advanced Clean Trucks, and Heavy-Duty Low-NOx Omnibus rules, and the proposed state-level Clean Transportation Fuel Program. The American Lung Association's "State of the Air 2025" report card gives five counties in New Mexico (including Bernalillo County, New Mexico's most populus county) an "F" grade and one a "C" grade, according to the number of days exceeding local ozone limits set forth in the National Ambient Air Quality Standards (NAAQS). The scientific community is also raising alarm bells about the acute effects of direct exposure to traffic exhaust from internal combustion engines. Several studies report that people who live, work, or go to school near major roadways – in other words, many of us – have higher rates of respiratory and cardiovascular illness. The Health Effects Institute reviewed over 700 studies that looked at health effects of traffic pollution exposure and verified the direct linkage between traffic pollution and asthma attacks, impaired lung function, cardiovascular disease, and premature death – especially

[113] Hardin, Garrett. "The tragedy of the commons: the population problem has no technical solution; it requires a fundamental extension in morality." *Science* 162.3859 (1968): 1243-1248.
[114] Environmental Economics, Inc. New Mexico Greenhouse Gas Emissions Inventory (2021) and Forecast (2030-2050). December 2024.
[115] New Mexico Climate Change Action. https://www.climateaction.nm.gov/. Accessed August 15, 2025.

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for exposure within 300-500 meters of a roadway.[116] In New Mexico, the American Lung Association reports that there are roughly 200,000 asthma cases, including 32,000 children; 81,000 COPD cases, and 138,000 people with cardiovascular disease.[117]

EPA's proposal removes both consumer and environmental protections. By eliminating electric vehicle (EV) durability requirements, the proposal undermines consumer protections and risks higher costs for vehicle owners, particularly those who choose to buy a low- or zero-emission vehicle. By removing greenhouse gas tailpipe emission standards, the proposal undermines environmental protections. The proposal's Draft Regulatory Impact Analysis (DRIA) fails to fully evaluate the costs and benefits of the proposed rule associated with the proposed changes and omits critical areas of analysis that would affect New Mexicans.

The feasibility of compliance with the greenhouse gas vehicle emissions standards reconsidered in this proposal relied heavily on hybrid and electric vehicle technologies. As a result of reducing greenhouse gas emissions, these compliance strategies were projected to reduce the amount of liquid hydrocarbon fuels consumed for transportation. The DRIA fails to account for changes in liquid fuel consumption under this reconsideration. If this rule is finalized, liquid fuel consumption for transportation will increase, leading directly to greater NOx and other criteria pollutant emissions. These increases in harmful emissions are not properly assessed, and the associated health and public health costs are largely ignored in the DRIA.

This is not the only deficiency in the DRIA. EPA has not considered many costs that were central to considering regulatory impact in prior rulemakings. For example, EPA's OMEGA modeling framework has previously been used to consider a broad set of economic and consumer impacts including vehicle technology costs, repair and maintenance costs, congestion costs, and noise costs. The DRIA's treatment of fuel savings is also deeply inadequate. Restricting the analysis to only 2.5 years of fuel savings is unreasonable and inconsistent with real-world vehicle ownership. The 8-year figure used in the 2024 rulemakings is a much more accurate picture reflecting how most Americans experience vehicle ownership and fuel savings. The DRIA additionally neglects to analyze employment and labor market effects and fails to properly account for macroeconomic impacts, which are essential for understanding the broader consequences of this proposal.

Energy security benefits, a key feature of prior EPA analyses, are also not considered in the DRIA. Electricity consumed as a transportation fuel is produced in the U.S. Whether this production is through fossil fueled electricity generation or through renewable electricity generation, electricity used as a transportation fuel is significantly more stable in price and more efficient in energy use than fossil crude-based transportation fuels. The global fossil fuel market is volatile and subject to global policy changes. While the DRIA relies on U.S. Energy Information Administration Annual Energy Outlook 2025 projections for fossil fuel prices, it fails to

[116] Health Effects Institute, "Traffic-Related Air Pollution: A Critical Review of the Literature on Emissions, Exposure, and Health Effects", January 2010 https://www.healtheffects.org/system/files/SR17TrafficReview.pdf (accessed October 20, 2023)

[117] American Lung Association State of the Air 2025: New Mexico https://www.lung.org/research/sota/city-rankings/states/new-mexico (accessed July 8, 2025)

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acknowledge that the *lowest* gasoline price forecasts occur under scenarios that include the Advanced Clean Trucks program and EPA's 2024 vehicle rulemakings. The DRIA also dismisses the fact that emissions tied to fossil fuel use are often easier and more cost-effective to control at the power plant level, particularly as renewable energy continues to outcompete fossil-based generation on cost. Finally, the 2024 EPA vehicle rulemakings properly evaluated electric distribution load, grid impacts, and resiliency needs, and the 2025 DRIA offers no substantive information to justify reconsideration of that work. Utilities and utility regulators are already planning for transportation electrification and decarbonization, and EPA provides no basis for reconsidering the greenhouse gas vehicle emission standards because of grid impacts.

In sum, the proposal strips away important consumer and environmental protections for vehicles without considering vital categories of costs and benefits. This results in a one-sided picture that exaggerates compliance burdens while ignoring the real and substantial benefits of strong greenhouse gas standards. The proposal and DRIA ignore benefits of the current rules that are critical for protecting public health, reducing costs for consumers, and safeguarding New Mexico's air and climate.

Conclusion

The New Mexico Environment Department respectfully requests that the proposed rule be withdrawn and urges the EPA to continue mitigating climate change by maintaining current regulations. Withdrawal of the proposed rule will additionally ensure that reduced co-pollutant emissions continue to be enjoyed by the residents of New Mexico and elsewhere in the United States.