September 2, 2025

Secretary Christopher Wright
U.S. Department of Energy
1000 Independence Ave. S.W.
Washington, D.C. 20585-0270

Members of the Climate Working Group
U.S. Department of Energy
1000 Independence Ave. S.W.
Washington, D.C. 20585-0270

Re: Technical Comment Response to the U.S. Department of Energy's Climate Working Group Report Titled "*A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate*"; Docket No. DOE-HQ-2025-0207

Dear Secretary Christopher Wright and Members of the Climate Working Group,

On behalf of Public Citizen, a consumer advocacy organization with over 500,000 members and supporters nationwide, we appreciate the opportunity to respond to the Department of Energy's (DOE) request for comment on the report "*A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate*" disseminated by the Climate Working Group (CWG) on July 29 2025.[1] The report is a blatant disregard of the virtually unanimous scientific consensus of climate change. It props up the minority, contrarian view of climate science while simultaneously stating misleading and false claims and did not follow several federal administrative processes during the drafting and dissemination of the report. We ask that you withdraw it.

The Department of Energy, as a science-based agency, has a legal requirement to follow the science, yet this report contains both considerable misleading and false scientific findings[2] and legal vulnerabilities.[3] In addition to withdrawing the report, we recommend no further action to conduct a scientific review of the impacts of greenhouse gas emissions in the U.S. until DOE can appoint additional climate scientists to the agency's climate working group, and until DOE agrees to conduct a scientific assessment that includes robust public engagement and participation.

While the purpose of this DOE report is to seemingly review the "scientific certainties and uncertainties in how anthropogenic carbon dioxide (CO_2) and other greenhouse gas emissions have affected, or will affect, the Nation's climate, extreme weather events, and selected metrics of societal well-being,"[4] and is written for non-technical audiences, the report's scientific

[1] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf
[2] Tandon, Ayesha et all, Factcheck: Trump's climate report includes more than 100 false or misleading claims, carbon brief (13 August 2025), https://interactive.carbonbrief.org/doe-factcheck/index.html
[3] Frey, Christopher, Frey, REQUEST FOR CORRECTION OF: "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate," Disseminated by the U.S. Department of Energy on July 29, 2025, (15 August 2025)
[4] Federal Register, Notice of Availability: A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate, Federal Register (1 August 2025), https://www.federalregister.gov/documents/2025/08/01/2025-14519/notice-of-availability-a-critical-review-of-impacts-of-greenhouse-gas-emissions-on-the-us-climate

findings and evidence have been found to be misleading and false.[5] Overall, the report casts doubt on the scientific consensus of climate change and is designed to provide the scientific underpinning and justification for the Trump administration to repeal the 2009 EPA endangerment finding[6] — a finding that serves as the legal prerequisite for federal climate emissions regulation.[7] This report is a contrarian view to the 97 to 99.9% scientific consensus of climate change[8] and highlights the Trump administration's focus on climate denialism. This report poses a grave danger to the U.S. government's ability to protect public health and welfare by reducing climate warming greenhouse gas emissions.

It is notable that the report is "intended to be accessible to non-experts."[9] Unfortunately, the authors' lop-sided and contrarian views make it difficult for any non-technical individual to understand the miscontextualized and false scientific statements. It is an important part of scientific review of federal documents to have a scientific view and robust public engagement, but this document does neither. Ultimately, the DOE report could — and likely has — lead to the perpetuation of mis- and dis-information of climate science among the public.

Below is an overview of the main scientific and legal concerns we have with the report. The below comments include:

1. Reiterating the 97 to 99.9% "virtually unanimous"[10] scientific consensus among climate scientists and the need for the U.S. government to address greenhouse gas emissions to avoid warming of more than 1.5 to 2 degrees Celsius[11];
2. Supporting the scientific community's response to the DOE CWG report, and;
3. Supporting Christopher H. Frey, Ph.D.'s request for correction and recommending DOE CWG withdraw the report.

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1. Reiterating the 97 to 99.9% "virtually unanimous" scientific consensus regarding human-caused climate change and the need for the U.S. government to address greenhouse gas emissions to avoid warming of more than 1.5 to 2 degrees Celsius

The 97 to 99% "virtually unanimous" scientific consensus of human caused climate change

Climate scientists have long agreed that humans are largely responsible for climate change. In 2004, science historian Naomi Oreskes analyzed over 928 abstracts of papers in the Institute for

[5] Tandon, Ayesha et all, Factcheck: Trump's climate report includes more than 100 false or misleading claims, carbon brief (13 August 2025), https://interactive.carbonbrief.org/doe-factcheck/index.html
[6] Friedman, Lisa, Environmental Groups Sue Over D.O.E. Report Downplaying Climate Change, The New York Times (15 August 2025), https://www.nytimes.com/2025/08/15/climate/lawsuit-climate-change-report.html
[7] Natural Resources Defense Council (NRDC), EPA'S Endangerment Finding: The Legal and Scientific Foundation for Cutting Climate-Changing Pollution, NRDC (August 2025), https://www.nrdc.org/sites/default/files/epa-endangerment-finding-fs.pdf
[8] Ruggeri, Kai Ph.D, Communicating Consensus Strengthens Beliefs About Climate Change, Columbia University's Mailman School of Public Health (26 August 2024), https://www.publichealth.columbia.edu/news/communicating-consensus-strengthens-beliefs-about-climate-change#:~:text=Today%2C%2097%20percent%20to%2099.9(link%20is%20external,communicating%20this%20overwhelming%20consensus%2C%20with%20promising%20results
[9] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), pg. x, https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf
[10] Powell, James Lawrence, Climate Scientists Virtually Unanimous: Anthropogenic Global Warming Is True, Sage Journals: Bulletin of Science, Technology, & Society (28 March 2016), https://journals.sagepub.com/doi/abs/10.1177/0270467616634958
[11] United Nations (UN), 1.5°C: what it means and why it matters, UN (n.d.), https://www.un.org/en/climatechange/science/climate-issues/degrees-matter

Scientific Information (ISI) database[12] from 1993 to 2003 related to human activities and warming the Earth's surface, finding that, as Oreskes notes, "Remarkably, none of the papers disagreed with the consensus position."[13]

This finding has not changed with time — rather the consensus has strengthened. A 2016 scientific review found that "the consensus on AGW [anthropogenic global warming] among publishing scientists is above 99.99%, verging on unanimity."[14] Contrarian views comprised less than 0.0058% of articles.[15] In 2021, another study supported the greater-than-99% consensus, concluding with "high statistical confidence that the scientific consensus on human-caused contemporary climate change—expressed as a proportion of the total publications—exceeds 99% in the peer reviewed scientific literature."[16] Reports of the Intergovernmental Panel on Climate Change (IPCC), the United Nations governing body for assessing the science related to climate change founded in 1988, affirm the same consensus,[17] as does the U.S. National Climate Assessment (NCA), a congressionally mandated report to the President and Congress.[18] Information on the virtually unanimous scientific consensus regarding climate change is critical to any serious review of the "scientific certainties and uncertainties" regarding climate change,[19] and the DOE report inexplicably — and inexcusably — neglects to mention it at all.

The IPCC releases some of the most definitive assessment reports on climate change, which go through rigorous, multi-year processes with appointed scientific authors to ensure the assessments provide credible, reliable climate models and data for policy-makers, scientists, and the public. Again, the DOE report omits any mention of the IPCC consensus or the rigorous, peer-reviewed process the IPCC assessment undergoes. Instead, the DOE report doctors IPCC graphs, miscontextualizes IPCC and other climate science data, and warps foundational climate science models that are used to project various potential outcomes and impacts of climate change.

The NCA also discusses observed and projected climate impacts in the United States, is compiled and written by 300 authors with diverse expertise and experience, and collaborates with 13 federal science agencies.[20] The DOE report fails, again, to mention the purpose, scope, and authoritativeness of the NCA, much less to take seriously, or mount any meaningful response to, its evidence and findings.

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[12] The ISI database includes over 8,500 peer-reviewed science journals, and multiple studies of the database show overwhelming agreement among climate scientists.

[13] Herring, David, Isn't there a lot of disagreement among climate scientists about global warming?, National Oceanic and Atmospheric Administration's Climate.gov (3 February 2020), https://www.climate.gov/news-features/climate-qa/isnt-there-lot-disagreement-among-climate-scientists-about-global-warming#:~:text=In%202016%2C%20a%20review%20paper,impacts%2C%20and%20one%20on%20mitigation

[14] Powell, James Lawrence, Climate Scientists Virtually Unanimous: Anthropogenic Global Warming Is True, Sage Journals: Bulletin of Science, Technology, & Society (28 March 2016), https://journals.sagepub.com/doi/abs/10.1177/0270467616634958

[15] ibid

[16] Lynas, Marc et al, Greater than 99% consensus on human caused climate change in the peer-reviewed scientific literature, IOP Science (19 October 2021), https://iopscience.iop.org/article/10.1088/1748-9326/ac2966

[17] The Intergovernmental Panel on Climate Change (IPCC), About the IPCC https://www.ipcc.ch/about/

[18] Center for Climate and Energy Solutions (C2ES), National Climate Assessment, C2ES (n.d), https://www.c2es.org/content/national-climate-assessment/

[19] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

[20] Center for Climate and Energy Solutions (C2ES), National Climate Assessment, C2ES (n.d), https://www.c2es.org/content/national-climate-assessment/

Further, the DOE report fails to mention that the Trump administration took down the NCA website[21] in July and dismissed the authors in April.[22] This report and these actions by the Trump Administration and Trump officials make information about global warming less available to the public and create a platform for the minority climate denying individuals, leading to further mis- and dis-information about climate science and the impacts of climate change.

The need for the U.S. government to address greenhouse gas emissions to avoid warming of more than 1.5 to 2 degrees Celsius

The DOE report argues that "U.S. policy actions are expected to have undetectably small direct impacts on the global climate and any effects will emerge only with long delays."[23] This argument is misguided and goes against the consensus that action to reduce greenhouse gas emissions is necessary to avoid the impacts of 1.5 to 2 degrees of warming. The IPCC and the NCA both caution about climate inaction and what likely scenarios would occur if we fail to reduce global greenhouse gas emissions. What's more, the United States has emitted more carbon dioxide than any other country to date, with 25% of historical emissions globally.[24] The DOE report fails to incorporate these details on the impact of U.S. emissions on cumulative global emissions when arguing that U.S. policies have small direct impacts on the global climate. Stating that the U.S. cannot solve the problem all alone is irrelevant to the question whether anthropogenic global warming (and therefore greenhouse gas pollution) is harmful and should be curbed. And a claim that the U.S. should fix nothing if it cannot fix the entire problem is a specious political argument, not evidence-based analysis. What is certain is that if the U.S. does not do its part, the problem is highly unlikely to be solved.

The DOE report attempts to discredit climate models to justify its conclusion that "CO_2-induced warming might be less damaging economically than commonly believed, and excessively aggressive mitigation policies could prove more detrimental than beneficial."[25] But overwhelming evidence contradicts this claim. Small and large-scale mitigation policies have shown to support increased renewable industries and clean energy jobs, ultimately resulting in economic growth.[26] The report also fails to mention that U.S. policy actions to reduce emissions have resulted in "the largest decline in carbon dioxide equivalent emissions of any country," or 14% over the past 15 years as of 2024.[27] Significant emissions reductions plainly make an impact at the national, state, and local level.

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[21] Hersher, Rebecca, The White House took down the nation's top climate report. You can still find it here, National Public Radio (NPR) (1 July 2025), https://www.npr.org/2025/07/01/nx-s1-5453501/national-climate-assessment-nca5-archive-report

[22] Hersher, Rebecca, White House dismisses authors of major climate report, NPR (29 April 2025), https://www.npr.org/2025/04/29/nx-s1-5380816/climate-assessment-authors-released

[23] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), p. 129, https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

[24] Ritchie, Hannah, Who has contributed most to global CO2 emissions?, Our World Data (1 October 2019), https://ourworldindata.org/contributed-most-global-co2#:~:text=the%20United%20States%20has%20emitted,contributors%20in%20a%20historical%20context

[25] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

[26] The Organisation for Economic Co-operation (OECD) and the Development and United Nations Development Development Programme, Investing in Climate for Growth and Development: The Case for Enhanced NDCs, OECD (n.d), https://www.oecd.org/content/dam/oecd/en/about/projects/new-ndcs-to-deliver-climate-action-for-growth/investing-in-climate-for-growth-and-development-the-case-for-enhanced-NDCs-key-messages.pdf

[27] Rapier, Robert, Why The U.S. Leads The World In Reducing Carbon Emissions, Forbes (4 February 2024), https://www.forbes.com/sites/rrapier/2024/02/04/why-the-us-leads-the-world-in-reducing-carbon-emissions/

This blatant climate denialism is likely due to the Trump Administration's, including the DOE Secretary's, connections to the fossil fuel industry. While outside the scope of the DOE report, it is important to note substantial evidence that the fossil fuel industry knew about the anthropogenic harms of fossil fuels on the climate by at least the 1950s — and that it funded substantial research on the effects of pollution on the environment which yielded accurate projections of climate harms several decades ago.[28] Today, the oil and gas industry is still engaged in various forms of climate-related deception and denial, and it funds climate denying campaigns.[29] It is not a coincidence that an Administration with deep ties to the fossil fuel industry — an industry with substantial influence, power, and money in politics and media — would disseminate a report that downplays the harm the industry is doing to Americans.

While it can be convenient to cherry-pick quotes, data, and other evidence to support politically motivated climate denial, it will become ever more inconvenient for current and future generations to deal with the consequences of DOE disregarding near-unanimous science on a critically important, massively harmful phenomenon. Additionally, it is dangerous to take the scientific evidence out of context for non-technical readers, which often leads to disproportionately more mis- and dis-information on the consensus of climate change and impacts of reducing greenhouse gas emissions. DOE and CWG must base their conclusions on evidence. Far from doing so, the report contradicts more than 99% of the many thousands of relevant analyses scientists have conducted without even acknowledging that it does so, much less explaining or attempting to justify that decision.

2. Supporting the scientific community's response to the DOE CWG report

We support the comment submitted and authored by over 85 climate scientists and technical experts, *Climate Experts' Review of the DOE Climate Working Group Report* (Climate Experts' Review) and comment letter,[30] which debunks several misleading and false scientific claims made in the report.[31]

The Climate Experts' Review highlights the falsities throughout the DOE report. Some of those include:

- relying on a misleading "global greening" notion by citing co2science.org, a non reputable source;
- relying on sources that are not peer reviewed and are known to be biased;
- making intellectually dishonest and unscientific claims; and,
- cherry-picking data from the IPCC by citing low-confidence as opposed to high-confidence scenarios.

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[28] Taylor, Charlotte, Defense, Denial, and Disinformation: Uncovering the Oil Industry's Early Knowledge of Climate Change, Georgetown University: The Earth Commons (23 October 2023), https://commonhome.georgetown.edu/topics/climateenergy/defense-denial-and-disinformation-uncovering-the-oil-industrys-early-knowledge-of-climate-change/; Milman, Oliver, 'Smoking gun proof': fossil fuel industry knew of climate danger as early as 1954, documents show, The Guardian (30 January 2024), https://www.theguardian.com/us-news/2024/jan/30/fossil-fuel-industry-air-pollution-fund-research-caltech-climate-change-denial

[29] Powell, Oliver, Tracing Big Oil's PR war to delay action on climate change, The Harvard Gazette (28 September 2021), https://news.harvard.edu/gazette/story/2021/09/oil-companies-discourage-climate-action-study-says/

[30] Dressler, Andrew and Kopp, Robert, Compendium of public comments, Federal Register(30 August, 2025), https://drive.google.com/file/d/1PwAR8I9YYmPhbO6CRekHkroJGMbjbX7l/view

[31] Tandon, Ayesha et all, Factcheck: Trump's climate report includes more than 100 false or misleading claims, carbon brief (13 August 2025), https://interactive.carbonbrief.org/doe-factcheck/index.html

We stand with the scientists in asserting that sham reports like the DOE report aren't fit for policymaking.

In addition to supporting the scientific community's review, below is our analysis on several misleading and false statements from the DOE report:

- ***Blatant political claim***: The DOE report states, "Pielke and Ritchie (2020) reported new studies using RCP8.5 were published at a rate of about 20 per day, with about two per day specifically linking RCP8.5 and 'business as usual.' They conclude that the climate research community has spent a decade 'committing scientific resources to science fiction' and that '[t]he scientific literature has become imbalanced in an apocalyptic direction.'"[32]

  The 2020 article by Pielke and Ritchie attempts to cast doubt on the entire scientific literature on climate change based on the simple notion that a large number of articles have focused on worst-case scenarios. But the conclusion does not follow from the premise. That many articles consider worst-case scenarios does not cast any doubt on the quality or rigor of climate science. Moreover, we rightly should be most concerned with worst-case scenarios. The DOE report notably fails even to discuss which scenario or actual pathway it aligns with most closely. The report also fails to acknowledge that having no climate policy at all, as it supports, would align us more closely with worst-case scenarios.

  Moreover, Roger Pielke is a political scientist, not a technical or climate scientist, and works for the conservative think tank American Enterprise Institute.[33] Justin Ritchie's research centers around the notion that the IPCC climate models are "out of touch with reality."[34] Ritchie's research has been refuted as "wildly off base," as the President of the National Academy Science states and goes on to describe why Pielke and Ritchie's research criticizing IPCC climate models is a mischaracterization of the models.[35] The report fails to explain why it favors the vacuous work of two men, one of whom lacks any relevant scientific credentials and works at a conservative think tank, over the near-unanimous consensus view of thousands of actual scientific experts.

- ***Doctored IPCC table***: Table 8.1 on page 94 of the report is a doctored image. The DOE report explains the doctored image as a "[s]creenshot of column 1 of Table 12.12 IPCC AR6 Working Group I report" and then references that the table is a "reproduction" of the same table.[36]

  The original IPCC image, which can be found on page 1,856 in chapter 12 of the IPCC's sixth assessment report, includes two additional columns. Those two additional columns show emerging climate-impact drivers (CIDs) by 2050 and emerging CIDs between 2050

[32] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), p.16, https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf
[33] American Enterprise Institute (AEI), Roger Pielke Profile, AEI (n.d), https://www.aei.org/profile/roger-pielke-jr/
[34] Pilke, Roger and Ritchie, Justin, How Climate Scenarios Lost Touch With Reality, Issues in Science and Technology (2021), https://issues.org/climate-change-scenarios-lost-touch-reality-pielke-ritchie/
[35] Field, Chris and McNutt, Marcia, Climate Scenarios and Reality, Issues in Science and Technology (2021), https://issues.org/climate-scenarios-reality-pielke-jr-ritchie-forum/#:~:text=and%20Justin%20Ritchie%20are%20wildly,%2Dfirst%20century%20thus%20far.%E2%80%9D
[36] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

and 2100 with varying low, medium, and high confidence scenarios for RCP8.5.[37]

The DOE report references RCP8.5 as "the most extreme forcing scenario" because it represents the highest emitting scenario in the absence of policies to combat climate change, leading to continued and sustained growth in atmospheric greenhouse gas concentrations. However, the IPCC uses the RCP8.5 as one of several modeled scenarios and pathways within the IPCC assessments to explore future emissions and related climate impacts and risks.[38] By removing the two other columns of the original 12.12 AR6 Table, the report produces a doctored and misleading image that supports a false conclusion that there is low confidence in attributing human-caused influence to several CIDs listed in the table. However, in the paragraph prior to Table 12.12, the IPCC AR6 says the opposite, "There is high confidence that several CID changes have already emerged above historical period natural variability in many regions."[39]

This table, taken out of context and doctored to support false claims, is dangerous and dishonest.

- ***Deflection and Downplaying the impacts of vehicle emissions***: The report uses a false equivalence to support its claim that regulating vehicle emissions does not have a measurable impact. The report states:

  "In 2022, the emissions from U.S. cars and light duty trucks totaled 1.05 billion metric tons of carbon dioxide (GtCO2, EPA 2024). Meanwhile global CO2 emissions from energy use totaled 34.6 GtCO2 (Energy Institute 2024). Hence U.S. cars and light trucks account for only 3.0 percent of global energy-related CO2 emissions."[40]

  This is a false comparison, as the appropriate comparison would be to compare global vehicle emissions rather than all worldwide energy-related emissions. One study[41] even found that global road transport emissions in 2020 were closer to 6 billion tonnes of CO2 – which would increase the share of emissions from U.S. cars and light trucks around 16.9 percent of global road-transport CO2 emissions. This is nearly six times larger than the 3.0 percent number and by itself is a considerable share of emissions.[42]

  Additionally, the study on which the report relies, the Energy Institute 2024 statistical review, does not break down CO2 emissions by vehicle emissions, nor does it include this 3.0 percent figure.[43] It's notable that the report fails to omit that vehicle emissions account

[37] IPCC, Chapter 12: Climate Change Information for Regional Impact and for Risk Assessment, IPCC AR6 (July 2023), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter12.pdf
[38] IPCC, Climate Change 2023 Synthesis Report: Summary for Policymakers, IPCC AR6 (July 2023), https://www.ipcc.ch/report/ar6/syr/downloads/report/IPCC_AR6_SYR_SPM.pdf
[39] IPCC, Chapter 12: Climate Change Information for Regional Impact and for Risk Assessment, IPCC AR6 (July 2023), https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter12.pdf
[40] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf
[41] Lekaki, Dimetra et al, Road transport emissions in EDGAR (Emissions Database for Global Atmospheric Research), Atmospheric Environment (Vol. 324, 2024), https://www.sciencedirect.com/science/article/abs/pii/S1352231024000979
[42] Dressler, Andrew and Kopp, Robert, Compendium of public comments, Federal Register (30 August, 2025), https://drive.google.com/file/d/1PwAR8I9YYmPhbQ6CRekHkroJGMbjbX7l/view
[43] Energy Institute, Statistical Review of World Energy, Energy Institute (2024), https://www.energyinst.org/statistical-review

for almost a third of U.S. emissions.[44] Downplayed statements that aggressive actions would not remediate the problem on a measurable scale deflects the real harms and threats posed from chronic exposure of vehicle emissions, while dismissing the need for long term solutions that reduce emissions and improve public health.

- ***Misleading statement on global warming benefits to financial and insurance sectors:*** The DOE report states, "Nor have past extreme weather events had a significant effect on US banks' performance (Blickle et al. (2021)); warming has even been shown to be beneficial for the finance and insurance sector (Mohaddes et al. (2023)).''[45]

  The two studies on which DOE purports to rely do not support its conclusions. One is far too limited, and the other contradicts DOE's claim. DOE also ignores important evidence from other sources.

  The Blickle study uses only a narrow type of historic data to yield claims such as the one above — that extreme weather impacts may be net-positive events for banks. It looks only at some of the most damaging disasters in given localities but does not consider other important questions like the effect of the growing frequency of events, the growing intensity of many events that nonetheless are not the *most* damaging, the growing uncertainty associated with predicting damaging events,[46] feedback loops and cascade effects,[47] broader economic and labor-market harms, and the permanency and cumulative nature of many climate-related financial risks.

  Thus, the Blickle study lacks a robust understanding of climate change and its implications for both acute and chronic weather-related events — and therefore it cannot support the broad conclusion DOE attempts to draw from it. While some lenders, in the short-term, might benefit from lending for damage repairs, others holding assets in climate vulnerable areas will not fare so well—short- or long-term—according to a growing body of research.[48]

  The central finding of the Mohaddes et al, (2023) study is that "climate change has a long-lasting adverse impact on real output in various states and economic sectors, and on labour productivity and employment in the United States." The report cherry-picks contrary statements from it in an attempt to support the opposite notion that climate change benefits the financial sector. It wholly ignores the study's primary determination, that climate change threatens holistic harm to the entire U.S. economy.

  In addition to attempting to rely on studies that fail to support or even contradict its conclusions, the report fails to incorporate a growing body of evidence to the contrary.[49] No

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[44] Environmental Protection Agency (EPA), Sources of Greenhouse Gas Emissions, EPA (n.d.), https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions

[45] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), p.117, https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

[46] Chrobak, Ula, We can no longer rely on historical data to predict extreme weather, Popular Science (19 March 2020), https://www.popsci.com/story/environment/underestimating-extreme-weather-climate-change/

[47] The Climate Reality Project, How Feedback Loops Are Making the Climate Crisis Worse, The Climate Reality Project (7 January 2020), https://www.climaterealityproject.org/blog/how-feedback-loops-are-making-climate-crisis-worse

[48] *See* Bank for International Settlements, Climate Risks in Banking –Transmission Channels (2024), https://www.bis.org/fsi/fsiconnect/fsi_connect_2024/lo_fsi_19032/Climate_Risks_in_Banking_Transmission_Channels.pdf

[49] Patrick Bolton et al., The green swan: Central banking and financial stability in the age of climate change, Bank for International Settlements (Jan. 2020), https://www.bis.org/publ/othp31.pdf; Sandy Trust et al., Planetary Solvency–finding our balance with nature: Global risk

less an authority than the Chair of the Board of Governors of the Federal Reserve System, Jerome Powell, recently noted that:

> "If you fast forward 10 or 15 years, there will be regions of the country where you can't get a mortgage, there won't be ATMs, banks won't have branches and things like that."[50]

New research is documenting that as insurers and lenders depart, home values will plummet and individuals will struggle to make mortgage payments.[51] At the same time, municipalities may begin to lose businesses and residents — their taxbase — with disastrous results, while at the same time they struggle to pay debts they owe to investors and others.[52]

Climate change is already destabilizing insurance markets, and by extension, the financial system, due to rising climate-related risk and uncertainty.[53] Insurers are buffering themselves against the crisis after increased losses, withdrawing from markets and hiking premiums, leaving households and businesses unable to afford insurance or going without coverage altogether. Insurance is not absorbing shocks but amplifying instability, becoming a transmission channel for climate risk into the financial system.

In the face of strong and mounting evidence to the contrary, the DOE report fails to establish any basis for its broad conclusion that climate impacts will be insignificant or even positive for financial institutions.

3. Supporting Christopher H. Frey, Ph.D.'s request for correction and recommending DOE CWG withdraw the report

Beyond the surfeit of misguided and false claims in the DOE report, it also fails to follow typical procedures that a federal scientific document should undergo. It was rushed through an abbreviated process without the rigorous peer review and public participation required of federal scientific documents,[54] and even its authors acknowledged key limitations.[55] Further undermining its validity, the report relies on contrarian authors known for downplaying fossil-fuel-driven climate risks while framing their work as "independent" and intended to "challenge the mainstream."[56]

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management for human prosperity (July 2023), Institute and Faculty of Actuaries and Exeter University, https://actuaries.org.uk/document-library/thought-leadership/thought-leadership-campaigns/climate-papers/planetary-solvency-finding-our-balance-with-nature/; Günther Thallinger, Climate, Risk, Insurance: The Future of Capitalism (Mar. 2025), https://www.linkedin.com/pulse/climate-risk-insurance-future-capitalism-g%C3%BCnther-thallinger-smw5f/

[50] Claire Boston, Powell predicts a time when mortgages will be impossible to get in parts of US, Yahoo Finance (Feb. 15, 2025), https://finance.yahoo.com/news/powell-predicts-a-time-when-mortgages-will-be-impossible-to-get-in-parts-of-us-190820841.html

[51] Shan Ge, Stephanie Johnson, and Nitzan Tzur-Ilan, Climate Risk, Insurance Premiums, and the Effects on Mortgage and Credit Outcomes, The Federal Reserve Bank of Dallas (Jan. 2025), https://www.dallasfed.org/-/media/documents/research/papers/2025/wp2505.pdf; Property Prices in Peril, First Street (Feb. 3, 2025), https://firststreet.org/research-library/property-prices-in-peril

[52] Therese Feng, Kuntal Singh & Stacy Mahehr, Quantifying the climate physical risk facing US muni bonds, S&P Global (April 25, 2024), https://www.spglobal.com/esg/insights/blog/quantifying-the-climate-physical-risk-facing-us-muni-bonds

[53] Trust, S., Bettis, O., Saye, L., Bedenham, G., Lenton, T. M., Abrams, J. F., & Kemp, L, Climate Scorpion – the sting is in the tail, Institute and Faculty of Actuaries, (2024, March 14), https://actuaries.org.uk/news-and-media-releases/news-articles/2024/mar/14-mar-24-climate-scorpion-the-sting-is-in-the-tail/

[54] U.S. Department of Energy Climate Working Group, Critical Review of Impacts of Greenhouse Gas Emissions on The U.S. Climate, U.S. Department of Energy (23 July 2025), pg. x, https://www.energy.gov/sites/default/files/2025-07/DOE_Critical_Review_of_Impacts_of_GHG_Emissions_on_the_US_Climate_July_2025.pdf

[55] The report states "The short timeline and the technical nature of the material meant that we could not comprehensively review all topics." ibid

[56] Richards, Heather, How the Energy secretary picked a fight with climate science, Politico (11 August 2025), https://www.politico.com/newsletters/power-switch/2025/08/11/how-the-energy-secretary-picked-a-fight-with-climate-science-00502634

As noted by Christopher H. Frey, Ph.D, "the report is further contaminated because it was organized in part by, or with the support of, the Cato institute, an external ideological and policy organization that is not a source of unbiased science that conforms with information quality requirements."[57] Frey details several procedural reviews under federal law the DOE report did not undergo. As Frey notes, "[t]hese laws exist to protect the public by preventing the federal government from being unduly influenced by narrow interests when disseminating evidence that informs policy decisions."[58] We write in support of the request for correction and recommend DOE CWG withdraw the report.

Given DOE and CWG's failure to create a scientific view when drafting the report, structuring CWG to be made up entirely of climate denying scientists, and the blatant disregard for scientific and federal administrative process when drafting and disseminating this report, we request the DOE report be withdrawn. It is riddled with overstated, misleading, and false conclusions and should be disregarded altogether. There is no room for the contrarian minority views within the U.S. government to outweigh a clear, near-unanimous scientific consensus.

Thank you for your attention and consideration to this important issue. Should you have any questions or would like to discuss these comments further, please contact Meghan Pazik at mpazik@citizen.org.

Sincerely,
Public Citizen

[57] Frey, Christopher, Frey, REQUEST FOR CORRECTION OF: "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate," Disseminated by the U.S. Department of Energy on July 29, 2025, (15 August 2025)
[58] Frey, Christopher, 4 laws that could stymie the Trump EPA's plan to rescind the endangerment finding, central to US climate policies, The Conversation (12 August 2025), https://theconversation.com/4-laws-that-could-stymie-the-trump-epas-plan-to-rescind-the-endangerment-finding-central-to-us-climate-policies-262952