**Comments on Draft U.S. Department of Energy's July 2025 report titled "A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate." - DOE-HQ-2025-0207-0001**

We write to inform DOE that this report was developed in violation of the Federal Advisory Committee Act, and that the use of the report's contents – which ignore and contradict an enormous body of more credible scientific work – would violate DOE's duties to act on the best available scientific and economic information available to it.

The report's authors have presented various well known challenges to the use of climate science and environmental economics to guide decisionmaking. But the report suffers from a lack of objectivity and rigor that is not appropriate for a federal scientific advisory report. The Secretary of Energy would be better served to seek advice on these topics from other existing and lawfully chartered advisory committees, and the many talented and dedicated experts at DOE and elsewhere in the United States federal government who specialize in climate science research. Lacking consultation with such experts, we recommend that the Secretary seek review of the contents of this report from the National Academies of Sciences, Engineering, and Medicine, which will be able to comprehensively and rigorously evaluate and critique the report's substantive and methodological shortcomings.[1]

While the following comments are focused on DOE's potential future misuse of the report's contents, they are equally applicable to other federal offices that might use the report, including without limitation EPA, NOAA, NASA, and OMB.

**The Report Was Produced in Violation of FACA**

The Federal Advisory Committee Act[2] applies to any "committee, board, commission, council, conference, panel, task force, or other similar group" that is "established or utilized by" a federal agency "to obtain advice or recommendations" by that agency or its officers.[3] Such advisory committees must be managed according to FACA, its implementing regulations,[4] and, in DOE's case, DOE's Advisory Committee Management Program policies.[5]

The "Climate Working Group" is an advisory committee. Its members were selected personally by the Secretary.[6] The group's purpose, as evidenced by the identity of its authors, the circumstances of its creation, and the structure of its discussion, was to advise and provide recommendations to the Secretary and to DOE on how to select and communicate justifications for DOE's, and the current presidential administration's, preferred climate policies and decisions.[7] The report accomplishes this purpose not

[1] We note with approval that NASEM has initiated a similar review on its own authority. We urge DOE to collaborate productively with that review.
[2] 5 U.S.C. § 1001 et seq.
[3] 5 U.S.C. § 1001(a).
[4] 41 C.F.R. Part 102-3.
[5] See https://www.energy.gov/sites/prod/files/em/m5151-1.pdf.
[6] Report at iii (naming authors), viii (the Secretary of Energy states that he "asked" for the report and "select[ed]" the group).
[7]The report states that the group was asked "to critically review the current state of climate science, with a focus on how it relates to the United States," with no further explanation regarding the purpose of the review. Report at viii. The only other stated purpose is found in the report's Notice of Availability, which states that information submitted in response to the report "may be used to assist DOE in planning the scope of future research efforts," implying that the report itself was produced at least in part for the same purpose. 90 Fed. Reg. 36150 (Aug. 1, 2025). See Northwest Forest Resource Council v. Espy, 846 F. Supp. 1009 (D.D.C. 1994) (finding that FACA applied to a group purported only to have produced a technical assessment, because evidence indicated that the report had influenced the government's policymaking in a variety of ways); National Nutritional Foods Ass'n v. Califano, 603 F.2d 327 (2d Cir. 1979) (advisory committee found where evidence existed that FDA relied on limited viewpoints of selected group); Natural Resources Defense Council, Inc. v. Herrington, 637 F. Supp. 116 (D.D.C. 1986) (examining parochial interests of group members in determining application of FACA, and finding FACA did not apply only where expert committee found to have no stake in the outcome, and were widely recognized as

simply by reporting facts, but by selectively presenting and promoting the authors' opinions, with the potential for, and evident purpose of, DOE's future adoption and use of those opinions as its own.[8]

The"Climate Working Group" is not exempted from FACA.[9] The group is not a national intelligence committee, is not exempted from FACA by statute, and was created by DOE, a federal entity.[10] The group was not a meeting of attendees assembled to "provide individual advice to a Federal official(s)" or to "exchange facts or information with a Federal official(s)."[11] The group was not "composed wholly of full-time or permanent part-time officers or employees of the Federal Government."[12] Nor was it a local civic group, a group established to advise state or local officials, or a group established by or on behalf of a foreign country.[13] Finally, the group has no "operational" function, and therefore is not "primarily operational" in nature.[14]

However, there is no evidence that any of FACA's requirements were followed in the group's formation or operation.[15] DOE's "Climate Working Group" therefore was formed and operated in violation of FACA.

Of particular concern, FACA regulations require the appointment of a "fairly balanced membership, as appropriate based on the nature and functions of the advisory committee, as documented through the agency's Membership Balance Plan (MBP)."[16] The "Climate Working Group" was developed specifically in contravention of this requirement. Drs. Christy, Curry, Koonin, McKitrick, and Spencer are all members

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credible experts - neither of which is the case here); Heartwood, Inc. v. U.S. Forest Service, 431 F. Supp. 2d 28 (D.D.C. 2006) (even where a group made no policy recommendations, advisory committee existed where their report provided the framework, context and information that an agency could rely on in making policy decisions).

[8] Framing the purpose of the report only as to inform or educate DOE of minority scientific viewpoints on various topics would not save the report from FACA. The report as written is intended not only to inform, but to *promote* certain specific scientific viewpoints, and the existence of FACA itself implies that the federal government cannot solicit, sponsor, create, refer to, or rely on reports intended entirely to promote marginal scientific views relevant to federal policymaking and decisionmaking. Even to the extent that such a report could legally be produced by an advisory committee, the group's formation would still need to comply with FACA's membership balance requirements to ensure a thorough, comprehensive, and fully contextualized presentation of the various issues under analysis.

[9] See 41 C.F.R. § 102-3.40 (listing exemptions).

[10] *Id.* §§ (a-c).

[11] *Id.* §§ (d, e). The authors functioned as a group, not individuals; DOE has indicated that the group's work may be used to direct research; and the context of the group's creation indicates that their report is intended to inform policy, and the group's work was a one-way report, not an exchange of information between DOE and the group. See Heartwood, 431 F. Supp. 2d 28 (addressing these factors).

[12] *Id.* §§ (f, g). There has been public reporting that some but not all of the members may have been appointed to temporary positions at DOE. Maxine Joselow, Trump Hires Scientists Who Doubt the Consensus on Climate Change, New York Times (July 8, 2025).

[13] *Id.* §§ (h, i, k).

[14] *Id.* § (j). Primarily operational groups are those that directly make or implement policy. See, e.g., HLI Lordship Indus., Inc. v. Comm. for Purchase from the Blind & Other Severely Handicapped, 615 F. Supp. 970, 978–79 (E.D. Va. 1985), rev'd other grounds, 791 F.2d 1136 (4th Cir. 1986) (group operating pursuant to regulation in various capacities was primarily operational), Pub. Citizen v. Comm'n on the Bicentennial of U.S. Const., 622 F. Supp. 753, 758 (D.D.C. 1985) (commission operating by statutory mandate was primarily operational); Jud. Watch, Inc. v. Clinton, 76 F.3d 1232, 1233 (D.C. Cir. 1996) (trust primarily engaged in soliciting and managing funds and providing no advice to government was primarily operational).

[15] The group has not been listed in GSA or DOE advisory committee databases. The GSA FACA database is available at https://www.facadatabase.gov/FACA/s/account/001t000000DCAopAAH/department-of-energy. DOE's online list does not appear to be complete:https://www.energy.gov/secretarial-boards-and-councils/federal-advisory-committee-management. There is no record in either database of FACA compliance for this "Working Group."

[16] 41 C.F.R. § 102-3.60(b)(3).

of what Dr. Spencer himself has recently called the climate science "red team."[17] They have made careers out of questioning broadly held views about climate science.[18] Notwithstanding their efforts, their own views have not been widely accepted by the scientific community.[19] Therefore, their inclusion, together, as the exclusive authors of this scientific advisory report represents a lack of membership balance and indicates that they were, in fact, chosen precisely to avoid such balance.[20] This lack of membership balance may also be indicative of the committee's intended advisory function.

The report itself also states that the authors agreed to draft the report only "on the condition that there would be no editorial oversight by the Secretary, the Department of Energy, or any other government personnel."[21] While this is framed as a protection of the group's independence, in this case it appears also to reflect an attempt to protect the authors from engagement with qualified experts at DOE and elsewhere. The legal way to protect advisory committee independence is to adhere to FACA'S requirements.[22]

Failure to comply with FACA renders all of the advice and opinions provided to DOE in this document unusable for purposes of federal policymaking and decisionmaking. Concerned litigants would be justified to seek a use injunction on that basis.[23] If at any point in the future DOE's, or any other federal agency's, policymaking or decisionmaking incorporates, adopts, or refers to positions taken in this report, courts would be justified in concluding that that department or agency has improperly relied on the report, and in reversing the Department's or other agency's actions on that basis.

**Reliance on this Report Would Violate the Administrative Procedure Act and the National Environmental Policy Act**

Although this report would form an insufficient basis for agency decisionmaking in any context, lacking an advisory committee charter or any specific agency action based on the report's contents it is not possible to speculate about all the ways that might occur.

In many details, including the fact that it was released on the same day, the report appears intended to support EPA's ongoing initiative to reverse the 2009 Endangerment Finding and related regulation under

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[17] Roy Spencer, Some Thoughts on Our DOE Report Regarding CO2 Impacts on the U.S. Climate, https://www.drroyspencer.com/2025/07/some-thoughts-on-our-doe-report-regarding-co2-impacts-on-the-u-s-climate/.

[18] Reporting on each of the authors is easily available online. For a summary regarding the ways in which their views conflict with much more widely held understandings of climate science, see https://skepticalscience.com/skeptic_John_Christy.htm, https://skepticalscience.com/skeptic_Judith_Curry.htm, https://www.scientificamerican.com/article/a-new-book-manages-to-get-climate-science-badly-wrong/, https://skepticalscience.com/curry-mcintyre-resist-ipcc-model-accuracy.html, https://skepticalscience.com/skeptic_Roy_Spencer.htm. Many critiques of their positions are also available in published scientific literature.

[19] E.g., Benjamin Storrow, DOE Questions Climate Change Consensus, Politico (Jul. 30, 2025); Scott Waldman & Benjamin Storrow, DOE Reframes Climate Consensus as a Debate, E&E News (Jul. 31, 2025).

[20] The Secretary stated: "I chose them for their rigor, honesty, and willingness to elevate the debate." Report at viii. This does not appear to be true. However, to the extent that it is, DOE should release information regarding its efforts to develop definitions of these selection criteria, and to assess all potentially qualified authors against these selection criteria, to ensure a fairly balanced membership.

[21] Report at x.

[22] Government Accountability Office, Testimony re Issues Related to the Independence and Balance of Advisory Committees, GAO Doc. GAO-08-611T (2008).

[23] E.g., W. Org. of Res. Councils v. Bernhardt, 412 F. Supp. 3d 1227, 1242 (D. Mont. 2019) (granting use injunction); NAACP Legal Def. & Educ. Fund, Inc. v. Barr, 496 F. Supp. 3d 116, 146 (D.D.C. 2020) (discussing standards for issuance of use injunction); see Lawyers' Comm. for C.R. Under L. v. Presidential Advisory Comm'n on Election Integrity, 265 F. Supp. 3d 54, 65-66 (D.D.C. 2017) (although FACA does not provide an independent cause of action, judicial review is still available through the APA and mandamus act).

the Clean Air Act.[24] Since DOE has no statutory authority to revise, reinterpret, or administratively contest EPA's endangerment finding, it remains unclear why DOE should invest Departmental resources in developing rationales for doing so through the Secretary's own handpicked external advisory committee. Nor does DOE's position on climate science have any relevance to DOE's obligation to undertake the various Congressional mandates it administers. But if EPA or another agency were to use this report or its contents in its own decisionmaking, these comments would also apply to that action.

Furthermore, although the federal register notice announcing the report states that DOE may use the report or public comments on it "to assist DOE in planning the scope of future research efforts,"[25] the report itself was not solicited or developed as research program guidance, and DOE research activities into climate science already receive external advising from various legitimately established scientific advisory committees.[26] Therefore, it appears unlikely that research program development was actually the report's intended purpose. But if DOE were to use this report for that purpose, these comments would apply.

It is possible, furthermore, that DOE could use the report's contents to influence or justify DOE environmental review determinations under the National Environmental Policy Act.[27] There is a risk that DOE will take the report's contents to be relevant to, among other things, impact evaluations and determinations of significance under that law.[28] In that case, these comments would apply. The concerns raised would also be relevant to any other use to which DOE may put the report.

Briefly, the Administrative Procedure Act prohibits arbitrary and capricious federal agency actions, findings, and decisions.[29] "An agency action is arbitrary and capricious if the agency has … entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise."[30] Under NEPA, furthermore, courts ensure that an agency has taken a "hard look" at an action's impacts, and have considered all relevant direct, indirect, and cumulative impacts of the agency's actions.[31] As this report could be taken to elevate its authors' minority scientific views on a variety of technical issues relevant to climate change impact assessment under NEPA to the level of Departmental policy, it is worthwhile to comment on the many ways in which DOE's adoption of the report's analyses and conclusions would not survive scrutiny under NEPA or the APA.

The remainder of these comments focus on the content of the individual chapters. To keep them to a manageable length, they will identify examples of key analytical deficiencies in each chapter, but will not identify every example of each identified problem in each chapter. However, DOE and the authors should undertake to do so.

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[24] EPA, Proposed Rule: Reconsideration of 2009 Endangerment Finding and Greenhouse Gas Vehicle Standards, 90 Fed. Reg. 36288 (Aug. 1, 2025).
[25] DOE, Notice of Availability: A Critical Review of Impacts of Greenhouse Gas Emissions on the U.S. Climate, 90 Fed. Reg. 36150 (Aug. 1, 2025).
[26] Climate research is spread across the DOE labs and is conducted according to various congressional mandates and presidential orders and Departmental directives. DOE advisory committees with relevant expertise include the Secretary of Energy Advisory Board and the Biological and Environmental Research Advisory Committee.
[27] 42 U.S. Code § 4321 et seq.
[28] See generally DOE, NEPA Guidance & Requirements, https://www.energy.gov/nepa/nepa-guidance-requirements, and related documents.
[29] 5 U.S.C. § 706(2)(A).
[30] Bark v. United States Forest Serv., 958 F.3d 865, 869 (9th Cir. 2020).
[31] See generally Seven County Infrastructure Coalition v. Eagle County, 605 U.S. ___ (2025). Although this case did emphasize judicial deference to agency decisions regarding various aspects of NEPA analysis, it did not eliminate agency responsibility to rely on best available science or to consider all available evidence as the basis for making rational decisions, and nothing in this decision obviates DOE's responsibility to consider the impacts of its actions on the atmosphere and climate.

**Comments on Chapter 1**

This chapter briefly distinguishes $CO_2$ and other greenhouse gases from criteria air pollutants.

The chapter begins with an error reflecting the authors' unfamiliarity with U.S. environmental law and the report's overall lack of rigor. It states: "The Clean Air Act of 1970 defined six so-called Criteria Air Contaminants."[32] However, the term "criteria air contaminants" is used in Canada and elsewhere, but not in the United States, where the term is "criteria air pollutants."[33] Furthermore, the criteria air pollutants were not "defined" in the Clean Air Act; rather, the Clean Air Act required the EPA administrator to identify air pollutants meeting the statute's designation definition and to subsequently issue air quality criteria for these pollutants.[34] The individual criteria air pollutants were designated by EPA regulation.

In any event, as the authors are not attorneys and should not be advising DOE on legal matters, their opinions regarding whether these pollutants qualify as criteria air pollutants under the Clean Air Act's National Ambient Air Quality Standards (NAAQS) program, the interrelationships between indoor air quality standards and NAAQS, or any other legal matter, are not within their areas of expertise and are inappropriate for inclusion in a purportedly scientific advisory report. Since the discussion is also not relevant to any question before DOE and the chapter's limited scientific content is repeated elsewhere, the whole chapter should be removed.

**Comments on Chapter 2**

This chapter discusses what it calls the "direct" impacts of atmospheric $CO_2$ on the environment, but limits its discussion to atmospheric $CO_2$'s impacts on vegetation and ocean pH.

The chapter does not define the term "direct," but under the authors' own apparent understanding of this term, increasing global average surface temperatures are also a "direct" impact of atmospheric $CO_2$.[35] The chapter therefore should discuss such warming as a direct impact or explain that it is discussed elsewhere.

With respect to the chapter's treatment of $CO_2$ fertilization, the section exemplifies a critical problem with this report as written: it fails to contextualize its discussions within the larger framework of prior research and policy-relevant questions. Notwithstanding the chapter's tone, $CO_2$ fertilization is a widely studied phenomenon discussed thoroughly by the IPCC and elsewhere.[36] Furthermore, the incorporation of $CO_2$ fertilization into cost-benefit analysis for federal policymaking has been the subject of discussion for years.[37] The chapter ignores this, and ignores many of the policy-relevant questions that a more rigorous assessment of this issue would attempt to address, such as: How is greening limited by the availability of other nutrients? How if at all is crop nutrition impacted? Will harmful and invasive species also benefit? Will any putative benefits be offset by increased drought, fire, pest, pollinator collapse, or extreme weather event risk also caused by climate change?

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[32] Report at 2.
[33] https://www.epa.gov/criteria-air-pollutants.
[34] 42 U.S.C. §§ 7408, 7409.
[35] See generally V. Eyring et al., Human Influence on the Climate System in Climate Change 2021: The Physical Science Basis–Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [IPCC WGI Report] at 423–552 (2021), doi:10.1017/9781009157896.005.
[36] E.g., IPCC AR6 Workgroup I Report (using the term "CO2 fertilization" fifty-five times).
[37] The extent to which $CO_2$ fertilization should be modeled in social cost of carbon estimates has been a subject of debate for over a decade. See Interagency Working Group on Social Cost of Carbon, United States Government, Response to Comments: Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (Jul. 2015).

The chapter's discussion of ocean acidification[38] would benefit from similar contextualization. But this discussion is also an example of another problem that arises throughout the report: cherry-picking, meaning selective presentation of information to support the authors' preferred position. As one small but informative example, the authors state: "But Ridd et al. (2013) showed that report to have resulted from a biased data analysis that, when corrected, showed no change in calcification rates."[39] In fact, the Ridd study's conclusions are contested and discussed in published literature.[40] The typical approach to scientific literature review would be to disclose and discuss that contestation, not simply to state the authors' evidently preferred claim as fact as has been done here. Similarly, the authors discuss recent, potentially short-term reef bounceback as if this were a complete response to the question of ocean acidification's impacts on corals, and attempt to generalize a meta-analysis of fish behavior literature into a general point about scientific literature production more broadly. These types of cherry-picked, incomplete, and overgeneralized statements have no place in a federal scientific advisory report.

Therefore, DOE's use of this report to, for example, justify modifications to models used by DOE to produce climate cost-benefit analysis for purposes of impact evaluation, or to minimize climate harm in environmental review determinations, would represent an impermissible failure to consider all relevant aspects of the problem, to incorporate all information available to it to assess these issues, and to rely on the best scientific evidence to guide its decisionmaking. DOE cannot rely on the report's statements without engaging additional, qualified experts to produce a more thorough analysis of the putative benefits of $CO_2$ fertilization and the harms of ocean acidification in the larger context of climate change cost-benefit analysis. As none of the authors appear to be agricultural or marine sciences specialists, however, their own conclusions on such matters could not form the basis of any such examination. Any DOE effort to define the direct impacts of atmospheric $CO_2$ without discussing the direct, indirect, and cumulative harms of greenhouse gases in global surface temperature increase would be similarly unsupportable.

**Comments on Chapter 3**

The general tenor of this chapter is that observed increases in global temperatures are due to factors other than atmospheric $CO_2$ concentrations, including particularly solar influence, and that conclusions to the contrary are invalidated by measurement bias due to urbanization. It also criticizes scientific publication bias and the treatment of these issues in the IPCC assessment reports.

The most notable aspect of this chapter is its evident interest in delegitimizing the IPCC. Repeated use of judgment-laden terminology such as "downplayed," focus on disagreement with IPCC conclusions unaccompanied by objective discussions of IPCC processes, selective characterizations of the depth of IPCC analysis, failure to contend with other major scientific initiatives that concur with relevant IPCC conclusions, and failure to credit the work that the IPCC itself has done to consider and respond to the points raised, call the authors' objectivity into question.[41] Relatedly, the chapter tends to overfocus on dated literature and prior critiques issued by the report's authors, particularly with respect to AR4, AR5,

[38] NB: The authors state: "While this process is often called 'ocean acidification', that is a misnomer because the oceans are not expected to become acidic; 'ocean neutralization' would be more accurate." Report at 7. This is an exercise in semantics but scientifically misguided. "Acidification" may refer to the reduction of pH in a liquid even if the liquid does not become acid. See generally NOAA Pacific Marine Environmental Laboratory, A Primer on pH, https://www.pmel.noaa.gov/co2/story/A+primer+on+pH (addressing the precise misconception the authors raise here). Should the authors wish to render this change in the scientific lexicon or promote its use in federal decisionmaking, they should first seek to have their terminology accepted by the marine sciences community.

[39] Report at 7.

[40] See De'ath et al., Yes—Coral calcification rates have decreased in the last twenty-five years!, 346 Marine Geology 400 (2013) (directly contesting Ridd et al. (2013)), which was not cited in the report.

[41] The IPCC process is described at https://www.ipcc.ch/about/preparingreports/. The IPCC transparently and systematically assesses the state of knowledge on climate change, its causes, impacts, risks, and response options. Its reports are drafted by hundreds of volunteer scientists across three working groups, undergo multiple rounds of expert and government review, and use carefully calibrated language that communicates both uncertainties and areas of developing knowledge.

and RCP8.5, when the current state of the art is represented in AR6 and the SSPs, which are mentioned but not discussed thoroughly.

With respect to the report's discussion on total solar irradiance, the chapter does not sufficiently acknowledge or discuss the ongoing debate over the critical literature it cites. This would involve an objective discussion of the actual scientific debate that is ongoing over these studies,[42] not a one-sided presentation of that debate by one of its participants, which is what this chapter represents. Similarly, with respect to the discussion of urban heat influences on temperature data, it is useful to point out that the authors themselves understand the necessity of disclosing and confronting contrary conclusions, as for example was done in Spencer et al. 2025 (co-authored by Dr. Christy), which stated that "[w]ith a few exceptions most efforts to determine whether the UHI has spuriously inflated land warming trends have concluded it has little effect," and that their own method producing a different result is "novel."[43] The authors' failure to include such qualifications and context in this report distinguishes it from typical peer reviewed scientific work produced even by the authors themselves.

Furthermore, the chapter's presentation of information regarding natural climate variability and increases in $CO_2$ uptake in response to increasing atmospheric $CO_2$ concentrations do not explain the relevance of these statements to forecasts and could be misinterpreted as the authors' contention that recently observed warming is due primarily to natural variability, or that natural carbon cycles will solve the problem of climate change without mitigation, neither of which statements are accepted as true by the majority of climate scientists.

Were DOE to rely on this report to discount, ignore, or mischaracterize the work and conclusions of the IPCC, or to conclude that observed warming was primarily due to solar influences, or that conclusions to the contrary were not reliable due to urban heat influences on data, it would again be impermissibly depriving itself of the best available scientific evidence and ignoring information available to support its decisionmaking. While agencies have discretion to select among different viewpoints in the face of uncertainty, they must still contend with those different viewpoints in a rational manner. To do so, DOE would have to confront the scientific debates one-sidedly presented in this chapter rigorously and objectively.

**Comments on Chapter 4**

This chapter asserts that data-driven methods for determining equilibrium climate sensitivity (an important climate model parameter) suggest a lower and narrower range of likely future increases in global average surface temperature than are widely accepted. It reviews the ongoing debates in the literature on this question relatively effectively, and discloses that the IPCC has updated its own approach as the science has developed. The chapter could be clearer that AR6 incorporated the types of methods discussed, and that AR7 presumably will do so also, while assessing and factoring in the more recent literature discussed in the chapter.

The chapter, however, creates a false impression of its discussion in its chapter summary, where it states blankly that "evidence since AR6 finds the lower bound of the likely range to be around 1.8°C."[44] This

[42] E.g., Mark T. Richardson and Rasmus E. Benestad, Erroneous Use of Statistics behind Claims of a Major Solar Role in Recent Warming, 22 Res. Astron. Astrophysics 125008 (2022) (critiquing Connolly et al.), not cited in the report; Connolly, et al., Challenges in the Detection and Attribution of Northern Hemisphere Surface Temperature Trends since 1850, 23 Res. Astronomy Astrophysics 105015 (2023) (responding); Theodosios Chatzistergos, A Discussion of Implausible Total Solar-Irradiance Variations Since 1700, 299 Solar Physics article 24 (2024); Drotos et al., Converged Ensemble Simulations of Climate: Possible Trends in Total Solar Irradiance Cannot Explain Global Warming Alone, 12 Frontiers in Earth Science 1240784 (2024) (also discussing the optimal fingerprinting debate discussed below in Chapter 7).

[43] Roy W. Spencer et al., Urban Heat Island Effects in U.S. Summer Surface Temperature Data, 1895–2023, 64 J. App. Meteorology and Climatology 717 (2025) (citations omitted).

[44] Report 25.

contention is not actually made in the chapter text, which discusses the literature with more nuance.[45] The authors criticize the IPCC's summaries for policymakers, but provide a naive reader of this chapter with a conclusion that is neither developed in nor supported by the chapter itself.

The discussion also occasionally seems to imply that neither AR6 nor recent literature incorporate data-driven approaches. In fact, the IPCC's final assessed range reflects precisely the kind of probabilistic integration of multiple lines of evidence that the authors seem to demand, and more recent literature, including that discussed in this chapter, is incorporated continuously into these assessments.

The chapter could also do much more to explain and contextualize the meaning and import of the probability ranges that it discusses. The IPCC "likely" range is not the only range that is relevant to policy development and impact analysis. Lower-probability outcomes are still possible, and the potential magnitude of harm in those cases is also important to consider in any type of risk assessment or mitigation discussion, including those undertaken in later chapters of this report.

DOE's use of this chapter to support assertions that IPCC work is based on implausible or outdated science would be misleading. Furthermore, any DOE environmental impact assessment seeking to base its climate analysis on the "likely" warming ranges advocated for in the summary of this chapter would fail to adequately address the conflicting lines of evidence discussed within the chapter's own pages, and lower probability high-magnitude risks.

**Comments on Chapter 5**

The general tenor of this chapter is that climate models "run hot" and fail to reproduce recent temperature observations. It is also critical of the IPCC's handling of these issues. It includes brief discussions of model-observational discrepancies in tropical troposphere warming trends, stratospheric cooling, northern hemisphere winter snow cover extent, planetary albedo hemispheric symmetry, and warming in the U.S. corn belt.

The overarching question raised (but not directly addressed) by this chapter is: what do these observations, separately or together, mean for the use of climate modeling in policymaking and decisionmaking? The authors appear to suggest that these issues mean that climate modeling outputs cannot be trusted and should not be relied upon. Another answer, however, is that climate models should be improved continuously to factor in such uncertainties, and a robust scientific debate should be conducted with a focus on improving models and clarifying how best to use modeling outputs in decisionmaking. As the authors themselves disclose, this is exactly what is happening, particularly through the IPCC's periodic assessments of the climate literature. This is not, however, what the authors themselves have undertaken, and any DOE effort to distance its decisions from climate model outputs would need to better contend with what the model-observational discrepancies discussed in this chapter actually mean, if anything, for the use of climate modeling in government policymaking and decisionmaking.[46]

With respect to the chapter's specific observations regarding model-observational discrepancies, one particularly problematic aspect of the discussion is its mixture of original research and gray literature with published scientific literature. For example, in the chapter's reliance on (Spencer 2024), and in its discussion of warming in the corn belt, it builds on gray literature published by Dr. Spencer with the

[45] Report 28 (discussing Sherwood et al. - Lewis debates and AR6).
[46] E.g., Paul Edwards, A Vast Machine: Computer Models, Climate Data, and the Politics of Global Warming (2010) (seminal work discussing relevant issues); IPCC AR6 WGI Chapter 4 (discussing handling of discrepancies and utility and credibility of outputs for policymaking), Wendy S. Parker, Model Evaluation: An Adequacy-for-Purpose View, 87 Phil. Sci. 457 (2020) (on assessing model credibility according to their purposes), National Research Council, Models in Environmental Regulatory Decision Making (2007) (discussing and recommending iterative model improvement).

Heritage Foundation, rather than engagement with peer reviewed publications.[47] The chapter also relies heavily on the published work of the authors themselves, a pattern of self-citation that raises questions about the report's objectivity and scientific integrity, particularly where updates to that research included in the report have not been published. The chapter should engage more fully with the published literature on the hot model problem,[48] climate-driven changes in U.S. agricultural regions beyond average temperatures,[49] significant evidence of ongoing snowpack decline,[50] and the other issues raised in the chapter.

The chapter should also more seriously discuss the importance of the use of ensembles, tuning, and multi-model averaging—all standard methods for accounting for internal variability and model spread—as relevant to climate model reliability generally.

Were DOE to refuse to engage with and take seriously existing climate modeling results based on the material in this chapter, it would impermissibly be depriving itself of the best available science for climate impact prediction, ignoring the iterative improvement process that already exists to contend with exactly the types of issues that this chapter discusses, and failing to consider risks that this chapter does not address.

**Comments on Chapter 6**

This chapter claims that most categories of extreme weather in the U.S. show no long-term trends, and promotes the view that reported recent observed increases in the incidence of hurricanes, floods, wildfires, droughts, and heatwaves may be due to natural variability while on longer timescales their incidence has remained constant or even declined.

As with all the other chapters reviewed, this chapter fails to rigorously contend with the weight of scientific literature relevant to its contentions. With respect to tropical cyclones, the authors do not engage with, among other things, literature demonstrating increasing climate-driven storm intensity (rather than incidence) and associated impacts.[51] With respect to U.S. temperature trends, the authors have again based their analysis on original and poorly contextualized non-peer-reviewed research; have not engaged with, among other things, the influence of the Dust Bowl on 1930s heat extremes that they emphasize;[52] and, most importantly, have not discussed the literature regarding why modern studies of

[47] The discussion of corn belt warming is not sourced, but appears to be duplicative of blogging and policy advocacy by Dr. Spencer. https://www.drroyspencer.com/2023/06/epic-fail-in-americas-heartland-climate-models-greatly-overestimate-corn-belt-warming/, https://www.heritage.org/environment/report/global-warming-observations-vs-climate-models (containing similar graphs and themes).

[48] E.g., Hausfather et al., Evaluating the Performance of Past Climate Model Projections, 47 Geophys. Res. Let. e2019GL085378 (2019), issues discussed and sources cited in and citing Hausfather et al., Comment: Climate Simulations: Recognize the 'Hot Model' Problem, 605 Nature 26 (2022) (which has been cited 420 times since its publication).

[49] E.g., Alter et al., Twentieth Century Regional Climate Change During the Summer in the Central United States Attributed to Agricultural Intensification, 16 Geophys. Res. Let. 1586 (2018),

[50] E.g., Mudryk et al., Snow Cover Response to Temperature in Observational and Climate Model Ensembles, 44 Geophys. Res. Let. 919 (2017), Mudryk et al., Historical Northern Hemisphere Snow Cover Trends and Projected Changes in the CMIP6 Multi-Model Ensemble, 7 Cryosphere 2495 (2020), Mote et al., Dramatic declines in snowpack in the western US, 1 npj climate and atmospheric science art. 2 (2018) (western state trends).

[51] E.g., Knutson et al., Tropical Cyclones and Climate Change Assessment: Part II: Projected Response to Anthropogenic Warming, 101 Bull. Am. Meteorological Soc. E303 (2020).

[52] The report selectively cites NCA4 pp. 199-200, but that same source later states: "Over timescales shorter than a decade, the 1930s Dust Bowl remains the peak period for extreme heat in the United States for a variety of reasons, including exceptionally dry springs coupled with poor land management practices during that era." NCA4 Vol. II at 77.

heat trends are almost exclusively based on shorter timeframes.[53] Similar comments apply to extreme precipitation events, which are also built on original research that has not been peer reviewed, self-citation without contextualization, and unsupported selection of long analysis timeframes. The same complexities apply to wildfire incidence. The discussions of tornadoes and flooding are so cursory that they do not merit comment. In summary, the authors have not rebutted, nor even really contested, the broadly accepted conclusion that extreme weather events since 1950 have been heavily influenced by climate change, and that this is the most relevant period of analysis on these topics.

Before adopting any of the conclusions in this chapter, DOE would be required to seek expert advice on the analytical methods employed and a thorough explanation of why these analyses are not consistent with other much more widely accepted analyses, and its failure to do so would deprive it of the best available scientific evidence on these topics. DOE reliance on this chapter's positions to minimize the impacts of climate change on extreme weather events would not survive judicial review.

**Comments on Chapter 7**

This chapter argues that sea level rise (SLR) has been modest and largely consistent with historical trends, and that localized subsidence—not climate change—is the dominant driver of U.S. SLR observations. In doing so, the chapter again fails to appropriately disclose that ongoing work on these topics already accounts for the issues raised, and selectively presents these issues to leave the reader with the impression that sea level rise risk assessments are overstated, and that subsidence is often decreasing those risks, rather than increasing them.

The primary purpose of this chapter is to question various projections of future acceleration in SLR on 25- to 75-year timescales. Again, however, contrary to the chapter's summary, the chapter does not actually explain its contention that SLR is accelerating more slowly than previously predicted, or that U.S. tide gauge measurements "reveal no obvious acceleration beyond the historical average rate."[54] These statements are directly contradicted by published literature that the chapter does not discuss.[55]

DOE's failure to incorporate scientifically supported projections of future sea level rise—especially in infrastructure, coastal permitting, and resilience planning—into its policy and decisions would be legally fatal.

**Comments on Chapter 8**

This chapter attempts to cast broad doubt on the attribution of recently observed climate change to greenhouse gas emissions. It proposes to use an alternative statistical attribution method particularly favored by Dr. McKitrick called "consistent climate fingerprinting," rather than the widely adopted "optimal climate fingerprinting" method.[56] The chapter should include a fuller exploration of the scientific community's existing responses to Dr. McKitrick's proposals, and the reasons that they have not been widely adopted to date.[57] Although much of this debate has occurred following the publication of the

[53] E.g., IPCC AR6 WGI Chapter 11 (analysis of trends begins in 1950 because existing literature does as well); Peterson et al., Homogeneity Adjustments of in Situ Atmospheric Climate Data: A Review, 18 Int'l J. Climatology 1493 (1998), Menne et al., On the Reliability of the U.S. Surface Temperature Record, 115 J. Geophys. Res. D11108 (2010) (discussing challenges with pre-1950 data).
[54] Report at 75.
[55] E.g., Nerem et al., Climate-Change–Driven Accelerated Sea-Level Rise Detected in the Altimeter Era, 115 PNAS 2022 (2018) ("Using the altimeter record coupled with careful consideration of interannual and decadal variability as well as potential instrument errors, we show that [SLR] rate is accelerating at 0.084 ± 0.025 mm/y2, which agrees well with climate model projections."); Dangendorft et al., Persistent Acceleration in Global Sea-Level Rise since the 1960s, 9 Nature Climate Change 705 (2019); Federiske et al., The causes of sea-level rise since 1900, 584 Nature 393 (2020).
[56] Report at 88 and papers cited (discussing optimal fingerprinting).
[57] Although some of this literature is cited in the report, it is generally supportive of the use of optimal fingerprinting in climate science notwithstanding Dr. McKitrick's critiques. E.g., Chen et al., A Statistical Review on the Optimal Fingerprinting Approach in Climate Change Studies, 62 Climate Dynamics 1439

IPCC's AR6, the chapter should also more directly engage with the AR6 discussion of attribution methodologies.[58]

The chapter also fails to adequately discuss the full literature on attribution of the 2021 Pacific Northwest heatwave, and selectively highlights studies that support its views while not discussing contrary findings as fully. A much more thorough review of these issues is provided in Fleishman et al., Synthesis of Publications on the Anomalous June 2021 Heat Wave in the Pacific Northwest of the United States and Canada, 106 Bull. Am. Meteorological Soc. E1155 (2025), published shortly before this report was released.[59]

Should DOE wish to develop a research program on the statistical attribution methods discussed in this chapter, it would need to seek advice from experts not directly involved in the debates under discussion. Were DOE to uncritically use the alternative statistical attribution methods promoted in this chapter for policymaking or decisionmaking, DOE would have failed to utilize the best available scientific information and methods, and ignored key information relevant to its decision.

**Comments on Chapter 9**

The general tenor of this chapter is that the United States should incorporate alleged agricultural benefits of climate change into its climate change cost-benefit considerations.

However, the chapter fails to discuss a wide range of negative impacts on agriculture wrought by climate change. The chapter is largely silent on the negative impacts of, among other things, climate-driven trends on agricultural yields related to extreme heat, pests, flooding, crop disease, pollinator decline, soil degradation, wildfire risk, and crop nutrition.[60] Again, the discussion also emphasizes studies that support its argument while omitting discussion of contrary findings.

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(2024) ("We provide a statistical review of the 'optimal fingerprinting' approach … in light of the severe criticism of McKitrick. … Our review finds that the 'optimal fingerprinting' approach would survive much of McKitrick (2022)'s criticism by enforcing two conditions related to the conduct of the null simulation of the climate model, and the accuracy of the null setting climate model. … We further provide the reason why the Feasible Generalized Least Square method, much advocated by McKitrick (2022), is not regarded as operational by geophysicists."); Chen et al., Comments on "Consistent Climate Fingerprinting" by McKitrick (2025), 63 Climate Dynamics art. 261 (2025) (engaging directly with Dr. McKitrick's work); Lucarini & Chekroun, Detecting and Attributing Change in Climate and Complex Systems: Foundations, Green's Functions, and Nonlinear Fingerprints, 133 Phys. Rev. Let. 244201 (2024) (responding to McKitrick's critiques); Lu, Improving Optimal Fingerprinting Methods Requires a Viewpoint beyond Statistical Science, 41 Adv. Atmo. Sci. 1869 (2024) (discussing limitations of statistical approaches and advocating for incorporation of physical sciences approaches); Drotos et al., Converged Ensemble Simulations of Climate: Possible Trends in Total Solar Irradiance Cannot Explain Global Warming Alone, 12 Frontiers in Earth Science 1240784 (2024) (confirming attribution using non-fingerprinting methods).

[58] IPCC AR6 WGI Chapters 3 and 10 at 429-30, 1414-16 (2021).

[59] In particular discussing Leach et al., 2024: Heatwave Attribution Based on Reliable Operational Weather Forecasts, 15 Nature Communications art. 4530 (2024).

[60] E.g., Hultgren et al., Impacts of Climate Change on Global Agriculture Accounting for Adaptation, 642 Nature 644 (2025) (food yield losses even with adaptation), and U.S. studies cited; Tran et al., Climate Change Impacts on Crop Yields Across Temperature Rise Thresholds and Climate Zones, 15 Sci. Rep. art. 23424 (2025) (non-linear yield responses to warming); Deutsch et al., Increase in Crop Losses to Insect Pests in a Warming Climate, 361 Sci. 916 (2018) (finding increased losses); Chaloner et al., Plant Pathogen Infection Risk Tracks Global Crop Yields under Climate Change, 11 Nature Climate Change 710 (2021); Settele et al., Climate Change Impacts on Pollination, 2 Nature Plants 16092 (2016); Eekhout & de Vente, Global Impact of Climate Change on Soil Erosion and Potential for Adaptation through Soil Conservation, 226 Earth-Sci. Rev. 103921 (2022); Kabeshita et al., Pathways Framework Identifies Wildfire Impacts on Agriculture, 4 Nature Food 664 (2023); Ebi et al., Nutritional Quality of Crops in a High $CO_2$ World: An Agenda for Research and Technology Development, 16 Env. Res. Let. 064045 (2021).

While consideration of $CO_2$ fertilization in climate cost-benefit analysis does have merit - as evidenced by the publication of Dr. McKitrick's work, among others, on the topic - the chapter does not adequately bridge from this relatively minor point to its highly questionable conclusion that "$CO_2$-induced warming will be a net benefit to U.S. agriculture." It is also a concern that the authors seem to be unaware that the impacts being discussed are already being incorporated into federal modeling.[61] DOE's own national labs produce models that include it.[62] If the Secretary wants information about these models, he should seek it from the people in the labs who build the models.

The chapter's omissions and unsupported conclusions preclude its use as a reliable or legally defensible foundation for federal policymaking or decisionmaking.

**Comments on Chapter 10**

The general tenor of this chapter is that U.S. disaster loss has been blunted by adaptation. The chapter argues that technology adoption and legal mandates have reduced disaster losses, that disaster losses have decreased as as a percentage of GDP and that total loss magnitude is a function of population and GDP, that cold-related mortality exceeds heat-related mortality, that heat-related mortality has decreased in modern times, and that vulnerability to heat and cold mortality is associated with access to affordable energy.

Regarding the chapter's discussion of loss normalization, the chapter should discuss that there is some evidence that disaster losses are increasing even accounting for normalization of loss data by population and wealth.[63] Furthermore, it should discuss the fact that even to the extent that loss trends are explained by these factors, absolute magnitudes are also important information. A percentage impact on GDP today implies harm to many more people, businesses, and communities than it did in the past, for example. And focusing only on normalized figures also discounts disparities in losses experienced in poorer areas, where impacts on GDP may be lower but the losses are no less significant,[64] and potentials for future losses to increase beyond past averages.[65]

Regarding the chapter's discussion of mortality, the chapter fails to discuss deficiencies in heat mortality data,[66] the relevance of the fact that most cold-related mortality occurs in moderate cold temperatures rather than extreme cold temperatures,[67] and important qualifiers to the potential of adaptation to reduce

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[61] Interagency Working Group on Social Cost of Greenhouse Gases, United States Government, Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 at 12.
[62] E.g., E3SM, GCAM. DOE researchers have also contributed to AGMIP.
[63] Bouwer, Have Disaster Losses Increased Due to Anthropogenic Climate Change? Bull. Am. Meteorological Society 39 (2011); Bouwer, Observed and Projected Impacts from Extreme Weather Events: Implications for Loss and Damage, in Loss and Damage from Climate Change (Springer 2019). See also Botzen et al., Methodological issues in natural disaster loss normalisation studies, 2 Env't Haz. 112 (2021) (critiquing methodology of (Pielke 2020)), Tol, A Meta-Analysis of the Total Economic Impact of Climate Change, 185 Energy Pol'y 113922 (2024) (noting that studies from different disciplines are more or less optimistic about financial impacts of climate change, and that econometric studies are the "most optimistic").
[64] E.g., Liu et al., Unequal Economic Consequences of Coastal Hazards: Hurricane Impacts on North Carolina, 19 Env. Res. Let. 104003 (2024) ("our main result suggests that additional metrics may be needed to capture impacts on marginalized/vulnerable populations that own low-value assets, and for whom small absolute losses likely mask substantial risks to their livelihoods and well-being.")
[65] E.g., Kotz et al., The Economic Commitment of Climate Change, 628 Nature 551 (2024).
[66] E.g., Vicedo-Cabrera et al., The Burden of Heat-Related Mortality Attributable to Recent Human-Induced Climate Change, 11 Nature Climate Change 492 (2021) (discussing challenges in attribution and finding higher trends).
[67] E.g., Lee & Dessler (2023) (selectively cited in the report, and warning specifically that "this research should not be interpreted as suggesting that climate change will yield net health benefits for low levels of warming.").

costs, including limits on and disparities in adaptive capacity.[68] With respect to heating and cooling, the chapter should discuss the fact that while the country's adaptive capacity for cold is very high, its adaptive capacity for heat currently is not.[69]

Remarkably given the focus on cost-benefit analysis in the prior chapter, the chapter also does not address the enormous costs that past and potential future adaptation will entail.[70] This should be of particular concern for DOE, yet there is no discussion in the report of climate-driven energy demand and its associated costs,[71] or the high costs of climate-hardening the electric grid.[72] Thus, the chapter's contention that adaptation alone can offset long-term future climate harm is simply unsupported by a thorough discussion, and contradicts a variety of credible sources. At a time when energy infrastructure is under mounting strain from climate change, any serious climate analysis must rigorously account for the costs of adaptation. This chapter does not, and for that reason it cannot provide a credible or lawful basis for DOE decisionmaking. DOE should in particular consult with experts in electric grid management regarding climate adaptation costs.

Were DOE to use this chapter to argue, for example, that mitigation efforts (including investment in renewable energy resources) is not cost-effective, and that what is "really" needed is cheap electricity generated by fossil fuels, DOE would need to contend with the large body of literature establishing that this is not true, and that adaptation reliant on fossil fuels escalates emissions, adds to energy-system stress, and increases future adaptation costs.[73]

**Comments on Chapter 11**

This chapter criticizes what it refers to as "mainstream climate economics," and in particular challenges the utility of the calculation of the social cost of carbon (SCC).

As with other chapters, it is not clear what use these detailed critiques will be put to in DOE decisions specifically, particularly given that the current Administration has ordered a pause to the use of SCC in decisionmaking, EPA is currently revising federal guidance, and DOE has not historically produced its own SCC framework. However, if this report is later invoked to justify omitting SCC considerations from NEPA environmental reviews or permitting decisions, this chapter would represent an inadequate and legally vulnerable basis for doing so.

The analysis does, however, raise a useful question of how agencies should deal with the inherent uncertainty of predictive modeling, economic or otherwise. While skepticism of assumptions is healthy, the chapter implies that many or most SCC estimates are wholly invalid or uninformative. It also heavily emphasizes studies suggesting little to no economic harm from warming—especially those authored or coauthored by Dr. McKitrick—while downplaying or omitting major peer-reviewed work indicating more substantial damages, including those already discussed above.

A credible analysis intended to support decisionmaking would have to acknowledge and engage with this broader literature. In particular, DOE's future decisionmaking must account consistently with the risks of low-probability, high-impact events such as abrupt shifts in ocean circulation or polar ice destabilization. These potential tipping points, though uncertain in timing and magnitude, are not irrelevant to

[68] E.g., AR6 WGII Chapter 1 at 161-171 (discussing limits to adaptation.
[69] E.g., as discussed by Lee & Dessler and Doremus et al., both cited in the report.
[70] See generally UNEP, Adaptation Gap Report 2023, https://www.unep.org/resources/adaptation-gap-report-2023.
[71] E.g., Auffhammer et al., Climate Change Is Projected to Have Severe Impacts on the Frequency and Intensity of Peak Electricity Demand across the United States, 114 PNAS 1886 (2017).
[72] E.g., Farber-DeAnda et al., Hardening and Resilience: U.S. Energy Industry Response to Recent Hurricane Seasons, DOE Office Electricity Delivery and Energy Reliability (2010), Fant et al., Climate Change Impacts and Costs to U.S. Electricity Transmission and Distribution Infrastructure, 195 Energy 116899 (2020).
[73] E.g., Colleli et al., Increased Energy Use for Adaptation Significantly Impacts Mitigation Pathways, 13 Nature Communications art. 4964 (2022).

cost-benefit analysis. The Department cannot ignore the contribution of agency action to these outcomes simply because they are difficult to quantify.

**Comments on Chapter 12**

This chapter argues that U.S. emissions reductions will have negligible effects on global climate, and thus that their reduction should not be expected to produce measurable climate benefits. This is directly contradicted in Chapter 10, which discusses policy effectiveness with respect to adaptation, and literature which demonstrates that national and even local policies influence overall global greenhouse gas emissions mitigation.[74]

In short, this chapter promotes an overly reductive view of climate causation and regulatory efficacy to justify weakening or avoiding climate-related obligations under federal law. Again, there is no evident reason for the DOE to seek scientific advisory committee input on this legal issue. However, it should be noted that the chapter rests on a de minimis or futility argument that federal courts have repeatedly rejected.[75]

**Conclusion**

The above review has identified key analytical deficiencies, including use of inaccurate and non-standard scientific terminology, incomplete review of issues examined, failure to contextualize analysis, cherry-picking, overgeneralization, bias, analysis outside the scope of the authors' expertise, oversimplification and mischaracterization of IPCC processes and other research, dated critiques, inadequate discussion of uncertainty, insufficient discussion of model improvement processes, advocacy for individual authors' preferred methods, extensive self-citation, failure to assess costs as well as benefits, overstatement of claims, failure to assess adaptation cost, failure to assess low-probability high-magnitude risks, and unwarranted minimization of policy efficacy. These deficiencies are consistent with the approximately 2% of published literature in these fields that contests the scientific consensus view of climate change as reflected in the IPCC assessment reports and elsewhere.[76]

The report therefore is mostly useful as a snapshot of the modern state of climate denialism. According to the authors, climate change is minimally attributable to human activity, but to the extent that it is happening its warming effects will be minimal, as will be its effects on extreme weather and sea level, while its benefits to agriculture and human wellbeing will be neutral or positive, and in any event policy cannot change anything. Meanwhile, the thousands of people working in the dozens of fields relevant to these questions are all mistaken or misguided. This is not a legally adequate starting point for federal agency decisionmaking on scientific matters.

In addition to the report's direct shortcomings, by convening this unbalanced advisory committee outside the dictates of FACA, the reports' contents are tainted for agency use, and DOE has placed a significant hurdle in front of its own efforts to use these claims to support its own decisionmaking. To the extent that the opinions and positions developed in this report ever form the basis for future DOE action, litigants should have little trouble filling in details and seeing those actions overturned.

[74] E.g., Hoppe et al., Three Decades of Climate Mitigation Policy: What Has It Delivered? 48 Ann. Rev. Env't & Res. 615 (2023); Stechemesser et al., Climate Policies that Achieved Major Emission Reductions: Global Evidence from Two Decades, 385 Science 6711 (2024).
[75] E.g., Center for Biological Diversity v. NHTSA, 538 F.3d 1172 (9th Cir. 2008); WildEarth Guardians v. BLM, 870 F.3d 1222 (10th Cir. 2017).
[76] Rasmus Bernstad et al., Learning from Mistakes in Climate Research, 126 Theoretical and Applied Climatology 699 (2016), https://doi.org/10.1007/s00704-015-1597-5.

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