



Suggestions for DOE Report Commenters

In some ways it's difficult to develop a single outline to guide reviews, and in other ways it's straightforward. The straightforward way is to simply go through the report's table of contents. However, that would lead to a tremendous amount of effort and would not necessarily focus on topics that fall within a group's area of expertise. Trying to anticipate what issues would be most profitable for a given group to address is the difficult task.

That said, there are key points for any group to consider. First, the report discusses many points correctly. There are indeed many remaining uncertainties in climate science as the authors point out. However, these are well-recognized by the scientific community and have largely been addressed as tangential to the broader picture. The authors are trying to use these issues to convince their audience (most likely the courts) that scientific uncertainty in climate science means climate science is scientifically uncertain.

Second, to achieve this, the report ignores the primary scientific measures and focuses on secondary metrics. As an example, the report focuses on climate models' relatively poorer performance in simulating surface temperatures in the tropics and skips any mention of the models' remarkably good performance in simulating global mean surface temperature (the primary metric of concern). Commenters should be alert to the use of odd metrics, periods of analysis (e.g., temperature trends over 45 years rather than more standard 20 or 50 years), or spatially limited analyses.

Third, keep in mind that the report seeks to overturn the consensus of the overwhelming majority of scientists who study climate change and its impacts. This consensus was not reached overnight or with a single report but has been steadily built over decades and on the foundation of thousands of studies and reports. Despite the claims of the authors, the report does not present any new information or raise fundamental discrepancies with the core physics. The underlying message is that these five authors, whose well-known critiques of the consensus science have been consistently debunked, are correct and the vast body of the climate science community is wrong. The question for reviewers and commenters is whether the report legitimately and scientifically demonstrates the authors' claim that the consensus science is too uncertain to serve as the basis for action.

Note that this is not a complete outline of possible issues to consider. Rather it is intended to be helpful as a starting point for reviewers and commenters.

1. Scientific information quality
 - a. Author selection
 - i. Lack of author balance (topics, perspectives)
 - ii. Lack of author expertise
 - iii. Small number of authors relative to breadth of issues

- b. Peer review and review transparency
 - i. Lack of reviewer independence
 - ii. Lack of public comment prior to use in major regulatory action
 - iii. Failure to identify reviewers
 - iv. Unknown breadth of reviewer expertise
 - v. Failure to publish review comments and responses
- c. Bias
 - i. Comments by Chris Wright or authors indicating efforts to reach particular conclusions
 - ii. Failure to cite studies that contradict conclusions
- 2. Scientific issues
 - a. Lack of meaningful scientific evaluation of the definition of an air pollutant
 - b. Lack of time to adequately review the report. There is no compelling scientific reason for limiting the comment period to 30 days.
 - c. Failure to cite major assessments except as the basis of critique (IPCC Assessment Reports, National Climate Assessments, National Academies reports)
 - d. Failure to cite major review studies or meta-analyses well-recognized on different topics
 - e. Reliance on secondary metrics (e.g., rate of temperature change vs. temperature change)
 - f. Reliance on limited sample sizes to draw broad conclusions (e.g., sea level rise discussion)
 - g. Reliance on simplistic analytical methods (e.g., linear regression for sea level rise when more sophisticated methods would yield opposite results)
 - h. Misrepresenting cited studies (see Hausfather, <https://www.theclimatebrink.com/p/how-the-doe-and-epa-used-and-misused>)
 - i. Presenting irrelevant information (e.g., Figure 2.2, discussion of the Permissible Exposure Level for CO₂)