



**Testimony of Marlo Lewis, Jr.
Senior Fellow in Energy and Environmental Policy
Competitive Enterprise Institute (CEI)**

on

“Examining Systemic Government Overreach at CEQ”

before

**Natural Resources Subcommittee on Oversight and Investigations
U.S. House of Representatives
September 14, 2023**

Summary

- CEQ’s strategy to shift investment away from fossil-fuel infrastructure by ‘aligning’ project reviews with the Biden administration’s climate agenda lacks a clear congressional authorization. It is unlawful and vulnerable to challenge under the Supreme Court’s major-questions doctrine.
- The greenhouse gas emissions of even the largest infrastructure projects have no detectable climate change impacts. Consequently, such emissions are not “significant” effects under NEPA.
- Climate change is not a crisis. Hence, no bona fide emergency exists such as might justify the Council’s overreach as a ‘desperate measure for desperate times.’

I. Introduction

Chair Gosar, Ranking Member Stansbury, and Members of the Subcommittee on Oversight and Investigations, thank you for inviting me to testify on “systemic government overreach” at the Council on Environmental Quality (CEQ). Today’s hearing spotlights a current example of a “recurring problem” identified by the Supreme Court in *West Virginia v. EPA*: “agencies asserting highly consequential power beyond what Congress could reasonably be understood to have granted.”¹

The National Environmental Policy Act (NEPA),² enacted on January 1, 1970, is a procedural statute intended to ensure that federal agencies examine the potential environmental impacts of proposed actions before deciding, for example, to approve construction of infrastructure projects.³

Through its proposed January 9 NEPA guidance on consideration of greenhouse gases and climate change (“Proposed Guidance”)⁴ and July 31 proposed Phase 2 NEPA implementing regulations (“Proposed Rule”),⁵ CEQ directs agencies to use NEPA as a climate policy framework—a purpose for which the statute was not designed and which Congress has not subsequently authorized.

II. Flouting West Virginia v. EPA

CEQ acknowledges that “Neither NEPA, the CEQ Regulations, or this guidance require the decision maker to select the alternative with the lowest net GHG emissions or climate costs or the greatest net climate benefit.” But then, in the same breath, CEQ proceeds to give agencies their marching orders: “in line with the urgency of the climate crisis, agencies should use the information provided through the NEPA process to help inform decisions that align with climate change commitments and goals.”⁶

Which commitments and goals? The footnote at the end of the sentence just quoted references the April 22, 2021 White House Fact Sheet setting forth President Biden’s Paris Agreement pledge to reduce U.S. emissions 50-52 percent below 2005 levels by 2030. The same document reaffirms the President’s goal of achieving economy-wide net-zero emissions by 2050.⁷

In another passage, the Proposed Guidance “encourages agencies to mitigate GHG emissions associated with their proposed actions to the greatest extent possible, consistent with national, science-based GHG reduction policies established to avoid the worst impacts of climate change.”⁸ The footnote at the end of that sentence also references the April 22, 2021 White House Fact Sheet.

Note also that the phrase “science-based GHG reduction policies established to avoid the worst impacts of climate change” is code for NetZero agenda, which seeks to virtually eliminate economy-wide greenhouse gas emissions by 2050 (IPCC).⁹ There is as yet no known way to achieve net-zero emissions by 2050 without compromising economic growth, household purchasing power, affordable automobility, and electric power reliability.¹⁰

A bit later on the same page, CEQ suggests that by promoting “Accurate and clear climate change analysis,” the guidance “Enables agencies to make informed decisions to help meet applicable Federal, State, Tribal, regional, and local climate action goals.”¹¹ The footnote at the end of that sentence states: “For example, the United States has set an economy-wide target of reducing its net GHG emissions by 50 to 52 percent below 2005 levels in 2030. See United Nations Framework Convention on Climate Change (UNFCCC), U.S. Nationally Determined Contribution (Apr. 20, 2021), <https://unfccc.int/NDCREG>.”

Some may say that guidance is just a statement of administration policy and lacks the binding force of a regulation. But executive agencies are expected to follow the President’s orders. Moreover, Proposed Rule reveals that CEQ has big plans for the Proposed Guidance. Namely, “CEQ proposes to incorporate some or all of the 2023 GHG guidance, which would require making additional changes in the final rule to codify the guidance in whole or part, as is or with changes, based on the comments CEQ receives on this proposed rule.”¹²

This is a clear case of systemic overreach. President Biden’s pledges under the Paris Agreement, a treaty never submitted to the Senate for its constitutional advice and consent, do not enlarge or modify any federal agency’s statutory powers or obligations. No statute passed by Congress, including the Inflation Reduction Act, makes the President’s Paris pledges the law of the land. None authorizes agencies to use project reviews and permitting decisions to advance the NetZero agenda.

In *West Virginia v. EPA* (2022), the Supreme Court vacated the Environmental Protection Agency’s Clean Power Plan (CPP) on major-questions grounds. The CPP attempted to settle a major question of public policy—whether the U.S. government should force a national shift from fossil fuel-generation to renewable-generation—without a clear authorization from Congress. The Court granted Cert due to the obvious fact that the EPA had claimed to find in a long-extant statute an unheralded power to restructure the U.S. electricity sector but could identify no language in the CPP’s putative statutory basis—section 111(d) of the Clean Air Act—clearly authorizing such a policy.¹³

NEPA, too, is a long-extant statute. Claims that NEPA proceedings should suppress investment in fossil fuel infrastructure are of recent vintage, and cannot be squared with public convenience and necessity determinations under the Natural Gas Act (NGA). The NGA directs the Federal Energy Regulatory Commission (FERC) to follow NEPA when reviewing proposed natural gas infrastructure projects. Using NEPA to reject natural gas infrastructure projects based on climate concerns would conflict with the NGA’s “principal purpose,” which is to “encourage the orderly development of plentiful supplies of electricity and natural gas at reasonable prices.”¹⁴

Far from NEPA containing a clear statement authorizing its use to make climate policy, the words “climate,” “carbon,” “greenhouse,” “global,” and “warming” do not occur in the statute. Just as the CPP attempted without clear authorization to block investment in GHG-emitting powerplants, so CEQ’s Proposed Guidance and Proposed Rule attempt without clear authorization to block investment in GHG-emitting infrastructure projects. Such projects include gas and oil pipelines, obviously, but also potentially any infrastructure that increases emissions by inducing economic growth.¹⁵

III. Project-Specific GHG Emissions Are Not “Significant” Effects under NEPA

CEQ contends that “Climate change is a fundamental environmental issue, and its effects on the human environment fall squarely within NEPA’s purview.”¹⁶ However, NEPA is concerned with agency actions “significantly affecting the quality of the human environment.” 42 U.S.C. § 4332. It is well-known—and CEQ has acknowledged many times—that the GHG emissions of even the largest infrastructure project has no measurable, traceable, or verifiable impacts on the quality of the human environment, much less a significant impact.

Illusory Thresholds of Meaningfulness and Significance

Both the Obama and Trump CEQs acknowledged that individual projects do not discernibly influence global climate change, beginning with CEQ’s 2010 Draft NEPA Guidance on Greenhouse Gas Emissions and Climate Change Effects. The document noted a stark difference between GHG emission sources and non-GHG emission sources: “From a quantitative

perspective, there are no dominating sources and fewer sources that would even be close to dominating total GHG emissions.”¹⁷ Which of the large universe of non-dominating sources should be covered?

The 2010 Draft GHG Guidance proposed that 25,000 tons or more of annual carbon dioxide-equivalent (CO₂e) emissions could provide “an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public.”¹⁸ However, CEQ immediately clarified that it was not making a claim about climatic impact: “CEQ does not propose this as an indicator of a threshold of significant effects, but rather as an indicator of a minimum level of GHG emissions that may warrant some description in the appropriate NEPA analysis for agency actions involving direct emissions of GHGs.”¹⁹

The 2010 Draft Guidance further stated: “CEQ does not propose this [25,000 ton] reference point as an indicator of a level of GHG emissions that may significantly affect the quality of the human environment.” Lest anyone mistakenly infer climatic significance, CEQ reiterated: “However, it is not currently useful for the NEPA analysis to attempt to link [proposed projects to] specific climatological changes, as such direct linkage is difficult to isolate and to understand.”²⁰

Stakeholders were confused. How can NEPA analysis of a project emitting 25,000 tons of greenhouse gases per year be “meaningful” if that quantity of emissions is not environmentally significant?²¹

CEQ’s 2014 Draft GHG Guidance devoted several pages to the issue without resolving it. CEQ again proposed a 25,000 metric ton reference point while disclaiming an intent to make a “determination of significance.”²² Rather, the significance of an agency action depends on multiple factors, such as “the degree to which the proposal affects public health or safety, the degree to which its effects on the quality of the human environment are likely to be highly controversial, and the degree to which its possible effects on the human environment are highly uncertain or involve unique unknown risks.”²³

However, that restates rather than resolves the perplexity. The degree to which GHG emissions from an individual project affect public health and safety is for all practical purposes zero. The climatic insignificance of individual projects is non-controversial and highly certain. Greenhouse gas emissions from individual projects are not suspected of posing unique unknown risks.

After wrestling with comments ranging from ‘no project-level emissions are big enough to quantify’ to ‘no project-level emissions are too small to quantify,’ CEQ judged that a 25,000-ton disclosure threshold is “1) low enough to pull in the majority of large stationary sources of greenhouse gas emissions, but also 2) high enough to limit the number of sources covered that state and local air pollution permitting agencies could feasibly handle.”²⁴ In other words, administrative convenience rather than science would determine the cutoff.

Then, two years later, the final 2016 GHG guidance silently dropped the 25,000-ton threshold. The whole topic disappeared without a word of explanation or comment. Perhaps CEQ just gave

up trying to explain how quantifying emissions that are not climatically “significant” could still be “meaningful.”²⁵

False Proxies

Although the climatic insignificance of project-related emissions has been Council’s consistent view since 2010, CEQ in 2014 continued to propose and in 2016 required agencies to quantify facility-level GHG emissions, and use that information to evaluate proposed actions, alternatives, and mitigation measures.

Based on what scientific rationale? CEQ argued that “projection of a proposed action’s direct and reasonably foreseeable indirect GHG emissions may be used as a proxy for assessing potential climate effects.”²⁶ That is misleading at best.

A proxy voter can cast a real, countable, ballot for an absentee voter. Data from tree rings, ice cores, fossil pollen, ocean sediments, and corals can be calibrated to instrumental data and then serve (albeit imperfectly) as proxies for climatic conditions in pre-industrial times. In contrast, no testable, measurable, or otherwise observable relationship exists between project-level GHG emissions and climate change effects. Imaginary proxies are not proxies.

CEI has made that point in previous comments to the CEQ. Maybe that is why the Proposed Guidance says nothing about proxies.

The Proposed Guidance declines to propose “any particular quantity of GHG emissions as ‘significantly’ affecting the quality of the human environment.”²⁷ That avoids the problem of having to defend the climatic “significance” of whatever reporting threshold is chosen. But that raises another problem. The absence of any tonnage threshold would seem to imply that no quantity of CO₂ emissions is too small to be estimated, reported, and mitigated. Neither science nor benefit-cost analysis supports such a policy.

Permitting Policy Is Not Climatically Significant

Perhaps CEQ believes that a GHG-focused permitting policy could significantly affect the quality of the human environment, even if individual permitting decisions cannot. The Proposed Guidance states: “Major Federal actions may result in substantial GHG emissions or emissions reductions, so Federal leadership that is informed by sound analysis is crucial to addressing the climate crisis.”²⁸ In fact, not even adoption of a GHG-centric permitting regime would discernibly affect global warming and any associated climate impacts.

For example, a 2022 Heritage Foundation analysis shows that a complete ban on the construction of new natural gas pipelines would achieve a negligible 0.74 percent reduction in U.S. annual CO₂ emissions through 2050 and an undetectable 0.069°C reduction in global temperatures through 2100.²⁹ Those conclusions are based on a clone of the U.S. Energy Information Administration’s (EIA’s) National Energy Modeling System (NEMS) and the EPA’s Model for the Assessment of Greenhouse Induced Climate Change (MAGICC).³⁰

CEQ’s Rebuttal: A Response

While disavowing an attempt to establish a particular quantity of emissions as climatically significant, CEQ insists that NEPA “requires more than a statement that emissions from a proposed Federal action or its alternatives represent only a small fraction of global or domestic emissions.” That tells us nothing “beyond the nature of the climate change challenge itself—the fact that diverse individual sources of emissions each make a relatively small addition to global atmospheric GHG concentrations that collectively have a large effect.”³¹

Respectfully, CEQ ignores the obvious. The “nature of the climate challenge” is what renders scrutiny of project-level GHGs a waste of time and effort. Attempting to solve the “climate change challenge” one project at a time is like trying to drain a swimming pool one thimbleful at a time. It is a fool’s errand.

Unless the real objectives are political, such as promoting climate angst, mobilizing activists, and expanding government control of the economy.

CEQ states that although “individual sources of emissions each make relatively small additions to global atmospheric GHG concentrations,” the myriad diverse sources “collectively have large effect.”³² The policy implication is obvious: To mitigate “large effect,” permission should be denied to as many sources as possible—ideally to all.

The chief problem with that policy—aside from the enormous economic losses it would entail—is that Congress has not authorized it. CEQ should take great care not to encourage agencies to do piecemeal what they clearly lack authority to do at the pace and scale dictated by the NetZero agenda.

IV. No Bona Fide Climate Emergency

CEQ’s core rationale for requiring agencies to consider GHG emissions in NEPA proceedings is the opinion that America “faces a “profound climate crisis and there is little time left to avoid a dangerous—potentially catastrophic—climate trajectory.”³³

That is incorrect. If climate change were a global ecological and economic crisis, we would expect to find evidence of declining health, welfare, and environmental quality over the past 50 years. Instead, we find dramatic improvements in global life expectancy, per capita income, food security, crop yields, and various health-related metrics.³⁴ Disease mortality rates increased after January 2020 but that was due to the COVID-19 pandemic,³⁵ not climate change.

Increasing Climate Safety

Of particular relevance, the average annual number of climate-related deaths per decade has declined by 96 percent during the past hundred years—from about 485,000 deaths annually in the 1920s to 18,362 per year in 2010-2019.³⁶ This spectacular decrease in aggregate climate-related mortality occurred despite a fourfold increase in global population. That means the individual risk of dying from extreme weather events declined by 99.4 percent over the past 100 years.³⁷ Far from being an impediment to such progress, fossil fuels were its chief energy source.³⁸

Decreasing Climate Vulnerability

We often hear that the weather is becoming increasingly destructive. For example, the National Oceanic and Atmospheric Administration (NOAA) recently reported that, “In 2020 alone, a record 22 separate climate-related disasters with at least \$1 billion in damages struck across the United States, surpassing the previous annual highs of 16 such events set in 2011 and 2017.”³⁹ Citing NOAA’s report, the Securities and Exchange Commission’s (SEC’s) climate risk disclosure proposal asserts that “the impact of climate-related risks on both individual businesses and the financial system as a whole are well documented.”⁴⁰ Similarly, the Financial Stability Oversight Council cites the trend in billion-dollar weather disasters as evidence that climate change is a “threat to financial stability.”⁴¹

In reality, not only is the increasing number of billion-dollar disasters not evidence of a climate crisis, it is not even evidence of climate change.⁴²

NOAA’s billion-dollar disaster charts adjust climate-related damages for inflation but not for population growth and exposed wealth. NOAA—and, thus, the SEC and FSOC—ignore what Danish economist Bjorn Lomborg calls the “expanding bull’s eye.” More people and more stuff in harm’s way lead to bigger climate-related damages even if there is no change in the weather.

Since 1900, Lomborg notes, Florida’s coastal population has “increased a phenomenal 67 times.” In fact, just two Florida counties, Dade and Broward, have a larger population today than lived along the entire coast from Texas to Virginia in 1940. Consequently, “For a hurricane in 1940 to hit the same number of people as a modern hurricane ripping through Dade and Broward today, it would have had to tear through *the entire Gulf of Mexico and Atlantic coastline.*”⁴³

Normalizing the damages—estimating the economic losses from an historic extreme weather event if the same event were to occur under present societal conditions—creates a very different picture from that touted by federal agencies. Consider hurricane damages, which constitute the largest portion of U.S. weather-related damages. There has been no trend in normalized U.S. hurricane damages since 1900. Consistent with that data, there has been no trend in the frequency and severity of U.S. landfalling hurricanes since 1900.⁴⁴

From a sustainability perspective, what matters most is not total damages but relative economic impact—extreme weather damages as a share of GDP. Globally, weather-related losses per exposed GDP declined nearly five-fold from 1980–1989 to 2007–2016.⁴⁵ In both rich and poor countries, economic growth outpaced the increase in climate-related damages.

Methodological Bias: Inflated Emission Scenarios

One often hears that climate change is happening so fast it will overwhelm humanity’s adaptive capabilities. In CEQ’s words, “there is little time left to avoid a dangerous—potentially catastrophic—climate trajectory.”⁴⁶ That assessment clashes with the positive trends discussed above. Three other key facts weigh against the alleged urgency for “climate action.”

First, the rate of warming in the lower-troposphere, as measured by satellites and weather balloons, has not accelerated over the past 44 years. In the University of Alabama in Huntsville satellite record, the warming rate is 0.14°C per decade.⁴⁷

A second major reason is that the emission baselines long used to project global warming and sea-level rise are wildly inflated. Those scenarios assume the world “returns to coal” absent aggressive political interventions to suppress the exploration, production, and utilization of fossil fuels.⁴⁸ That assumption underlies the high-end “radiative forcing” scenarios,⁴⁹ notably RCP8.5 and SSP5-8.5, featured in official and academic climate change impact estimates. Such scenarios are no longer credible.⁵⁰

It is difficult to exaggerate the extent to which RCP8.5 and SSP5-8.5 distort climate science, needlessly scare the public, and mislead policymakers. According to Google Scholar, since 2019, researchers published 17,400 papers featuring RCP8.5 and 3,800 papers featuring SSP5-8.5.⁵¹ One or both of those scenarios was the source of the scary-sounding climate impact projections in the Intergovernmental Panel on Climate Change’s (IPCC’s) 2013 Fifth Assessment Report (AR5), the IPCC’s 2018 Special Report on Global Warming of 1.5°C, the IPCC’s 2021 Sixth Assessment Report (AR6), and the U.S. Global Change Research Program’s 2018 Fourth U.S. National Climate Assessment.

At its zenith, the academic “consensus” endorsing those scenarios may have reached the fabled 97 percent.⁵² It is now crumbling.

SSP5-8.5 is a “socioeconomic pathway” calibrated to match the forcing trajectory of RCP8.5. RCP8.5, in turn, derives from an earlier storyline (A2r) from the IPCC’s 2007 Fourth Assessment Report.⁵³ Such scenarios assumed that learning-by-extraction would make coal the increasingly affordable backstop energy for the global economy.⁵⁴ In fact, real coal producer prices in July 2023 were 3.2 times higher than in July 2001.⁵⁵ RCP8.5 was based on the expectation that global coal consumption would increase almost tenfold during 2000-2100.⁵⁶ That is not happening and there is no evidence that it will.

In the International Energy Agency’s (IEA’s) baseline scenarios (“current policies” and “pledged policies”), global CO₂ emissions in 2050 are less than half those projected by SSP5-8.5.⁵⁷ Strikingly, in Resources for the Future’s (RFF’s) baseline scenario, global CO₂ emissions in 2100 are less than one-fifth of those projected by SSP5-8.5.⁵⁸ These dramatic reductions in baseline emission estimates decrease the urgency for “climate action.”

Methodological Bias: Overheated Models

CEQ’s Proposed Rule requires agencies to use “projections when evaluating reasonably foreseeable effects, including climate change-related effects,” and “expects that modeling techniques will continue to improve in the future, resulting in more precise climate projections.”⁵⁹ This brings us to the third reason to doubt the urgency for “climate action”: the persistent mismatch between modeled and observed warming in the troposphere, the atmospheric layer where most of the greenhouse effect occurs. The IPCC used the CMIP5 generation of climate models in AR5 and the CMIP6 generation of models in AR6. According to Google

Scholar, since 2019, researchers published 68,000 papers featuring CMIP5 models and 22,600 papers featuring CMIP6 models.

The CMIP5 models hindcast about 2.5 times the observed warming in the tropical troposphere since 1979.⁶⁰ About one-third of the AR6 models have higher equilibrium climate sensitivities than any model in the AR5 ensemble.⁶¹ Equilibrium climate sensitivity (ECS) is the term used to describe how much warming will occur after the climate system fully adjusts to a doubling of atmospheric CO₂ concentrations.

CEQ believes climate models are improving. If anything, the CMIP6 models are less accurate than the CMIP5 models. One CMIP5 model (INM-CM4) accurately hindcasts global temperatures in the tropical troposphere. No CMIP6 model does. All overestimate warming in that atmospheric region.⁶² Why is that significant? All models predict a strong warming signal in that region (the tropics at 300-200 hPa). The region is well monitored by satellites and weather balloons. Most importantly, climate models are not “tuned” to match temperature trends in that region, so the model simulations are genuinely independent of the data used to test them.⁶³

V. Conclusion

CEQ should withdraw the proposed GHG emission guidelines, which would require agencies to use NEPA as a climate policy framework—a purpose for which it was not designed and which Congress has not subsequently authorized. Language in the Proposed Rule requiring NEPA-based scrutiny and mitigation of project-specific climate effects should be deleted.

Far from NEPA containing a clear statement authorizing its use to make climate policy, the words “climate,” “carbon,” “greenhouse,” “global,” and “warming” do not occur in the statute.

NEPA is centrally concerned with “major” federal actions “significantly affecting the quality of the human environment.” The GHG emissions of even the largest infrastructure project have no discernible, traceable, or verifiable impacts on the quality of the human environment.

CEQ proceeds as if the “climate crisis” is important enough to make any level of GHG emissions climatically significant, and dire enough to compel NEPA’s alignment with Paris Agreement and NetZero 2050 emission reduction targets. If so, CEQ unlawfully attempts to settle a major question of public policy without clear congressional authorization.

CEQ should question the climate crisis narrative, which conflicts with ongoing long-term improvements in global life expectancy, per capita income, crop yields, and health; dramatic declines in climate-related mortality; and substantial declines in the relative economic impact of damaging weather.

Finally, CEQ should question the “science” underpinning the crisis narrative—a doubly-biased methodology in which overheated models are run with inflated emission scenarios. Absent those biases, climate change assessments would project less warming, smaller climate impacts, and lower tipping point risks.

¹ *West Virginia v. EPA*, 142 S. Ct. 2587, 2609 (2022).

² The text of NEPA as amended through P.L. 118-5, Enacted June 3, 2023, is available at <https://www.energy.gov/sites/default/files/2023-08/NEPA%20reg%20amend%2006-2023.pdf>.

³ Code of Federal Regulations, Title 40, Chapter V, Subchapter A, Part 1500, <https://www.ecfr.gov/current/title-40/chapter-V/subchapter-A/part-1500>.

⁴ Council on Environmental Quality (CEQ), National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions and Climate Change, 88 FR 1196, January 9, 2023, <https://www.govinfo.gov/content/pkg/FR-2023-01-09/pdf/2023-00158.pdf>.

⁵ CEQ, National Environmental Policy Act Implementing Regulations Phase 2, Proposed Rule, 88 FR 49924, July 31, 2023, <https://www.govinfo.gov/content/pkg/FR-2023-07-31/pdf/2023-15405.pdf>.

⁶ 88 FR 1196, 1204.

⁷ White House, FACT Sheet: President Biden Sets 2030 Greenhouse Gas Pollution Reduction Target Aimed at Creating Good-Paying Union Jobs and Securing U.S. Leadership on Clean Energy Technologies, April 22, 2021, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies/>.

⁸ 88 FR 1196, 1197.

⁹ IPCC, Special Report on Global Warming of 1.5°C, Chapter 2, p. 2, https://www.ipcc.ch/site/assets/uploads/sites/2/2022/06/SR15_Chapter_2_LR.pdf.

¹⁰ Kevin Dayaratna, Katie Tubb, and David Kreutzer, “The Unsustainable Costs of President Biden’s Climate Agenda,” Heritage Foundation, June 16, 2022, <https://www.heritage.org/energy-economics/report/the-unsustainable-costs-president-bidens-climate-agenda>; Daniel Turner and Kent Lassman, “What the Green New Deal Could Cost a Typical Household,” Competitive Enterprise Institute, July 29, 2019, https://cei.org/sites/default/files/Daniel_Turner_and_Kent_Lassman_-_What_the_Green_New_Deal_Could_Cost_a_Typical_Family.pdf;

Francis Menton, The Energy Storage Conundrum, The Global Warming Policy Foundation, Briefing 61, 2022, <https://www.thegwpf.org/content/uploads/2022/11/Menton-Energy-Storage-Conundrum.pdf>.

¹¹ 88 FR 1196, 1197.

¹² 88 FR 49924, 49945.

¹³ *W. Virginia v. EPA*, 142 S. Ct. 2587 (2022).

¹⁴ *NAACP v. FPC*, 425 U.S. 662 (1976).

¹⁵ “Indirect [environmental] effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.” 88 FR 49924, 49986.

¹⁶ 88 FR 1196, 1197.

¹⁷ CEQ, Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas Emissions February 18, 2010, p. 2, <https://obamawhitehouse.archives.gov/sites/default/files/microsites/ceq/20100218-nepa-consideration-effects-ghg-draft-guidance.pdf> (hereafter CEQ, 2010 Draft GHG Guidance).

¹⁸ CEQ, 2010 Draft GHG Guidance, p. 2.

¹⁹ CEQ, 2010 Draft GHG Guidance, p. 2.

²⁰ CEQ, 2010 Draft GHG Guidance, p. 3.

²¹ CEQ, Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews, 79 FR 77802, 77825, December 24, 2014, <https://www.govinfo.gov/content/pkg/FR-2014-12-24/pdf/2014-30035.pdf>.

²² 79 FR 77802, 77810.

²³ 79 FR 77802, 77810.

²⁴ 79 FR 77802, 77818.

²⁵ CEQ, Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews, August 1, 2016, https://ceq.doe.gov/docs/ceq-regulations-and-guidance/nepa_final_ghg_guidance.pdf (hereafter CEQ, 2016 Final GHG Guidance).

²⁶ CEQ, 2010 Draft GHG Guidance, p. 3; 79 FR 77825; CEQ, 2016 Final GHG Guidance, pp. 4, 10.

²⁷ 88 FR 1196, 1200.

²⁸ 88 FR 1196, 1197.

²⁹ 0.069°C is smaller than the 0.11°C standard deviation for estimating changes in annual average global surface temperatures. J. Hansen, et. al. 1999. GISS Analysis of Surface Temperature Change. *Journal of Geophysical Research*, Vol. 104, No. D24, 30,997-31,022, <https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1029/1999JD900835>.

³⁰ Comments submitted by Patrick Michaels, Kevin Dayaratna, and Marlo Lewis, Federal Energy Regulatory Commission, Order on Draft Policy Statements, Docket No. PL21-3-000, March 24, 2022, <https://cei.org/wp-content/uploads/2022/04/CEI-Comments-Michaels-Dayaratna-Lewis-Docket-No.-PL21-3-000-April-25-2022.pdf>.

³¹ 88 FR 1196, 1201.

³² 88 FR 1196, 1201.

³³ 88 FR 1196, 1197; 88 FR 49924, 49928.

³⁴ Our World in Data, <https://ourworldindata.org/>.

³⁵ Our World in Data, Cumulative Deaths from All Causes Compared to Projection Based on Previous Years, Per Million People, Sep. 11, 2022, <https://ourworldindata.org/grapher/cumulative-excess-deaths-per-million-covid?time=2022-09-11&country=MEX~PER~FRA~BRA~USA~GBR~BGR~ISR~AUS>.

³⁶ Bjorn Lomborg, “We’re Safer from Climate Disasters than Ever Before,” *Wall Street Journal*, November 3, 2021, <https://www.wsj.com/articles/climate-activists-disasters-fire-storms-deaths-change-cop26-glasgow-global-warming-11635973538>; “Fewer and Fewer People Die from Climate-Related Disasters,” Facebook, <https://www.facebook.com/bjornlomborg/posts/475702943914714/>.

³⁷ Bjorn Lomborg, “The risk of dying from climate-related disasters has declined precipitously.” Twitter, January 1, 2023, <https://twitter.com/BjornLomborg/status/1612790152539131904>.

³⁸ Alex Epstein, *Fossil Future: Why Human Flourishing Requires More Oil, Coal, and Natural Gas—Not Less* (New York: Penguin Random House, 2022).

³⁹ NOAA, National Centers for Environmental Information (NCEI) U.S. Billion-Dollar Weather and Climate Disasters (2022), <https://www.ncei.noaa.gov/access/billions/>.

⁴⁰ SEC, The Enhancement and Standardization of Climate-Related Disclosures for Investors, 87 FR 21334, 21336, April 11, 2022, <https://www.govinfo.gov/content/pkg/FR-2022-04-11/pdf/2022-06342.pdf>.
87 FR 21336.

⁴¹ FSOC, *Report on Climate-Related Financial Risk 2021*, p. 12, <https://home.treasury.gov/system/files/261/FSOC-Climate-Report.pdf>.

⁴² Lest anyone mistake my meaning, greenhouse gases are radiative (climate warming) gases, and anthropogenic warming is real.

⁴³ Bjorn Lomborg, Bjorn Lomborg, *False Alarm: How Climate Change Panic Costs Us Trillions, Hurts the Poor, and Fails to Fix the Planet* (New York: Basic Books, 2020), pp. 70-71 (original emphasis).

⁴⁴ Philip J. Klotzbach, Steven G. Bowen, Roger Pielke Jr., and Michael Bell. 2018. Continental U.S. Hurricane Landfall Frequency and Associated Damage: Observations and Future Risks. *Bulletin of the American Meteorological Society* Vol. 99, Issue 7, https://journals.ametsoc.org/view/journals/bams/99/7/bams-d-17-0184.1.xml?tab_body=pdf.

⁴⁵ Giuseppe Formetta and Luc Feyen. 2019. Empirical Evidence of Declining Global Vulnerability to Climate-Related Hazards, *Global Environmental Change*, 57: 1-9, https://www.researchgate.net/publication/333507964_Empirical_evidence_of_declining_global_vulnerability_to_climate-related_hazards.

⁴⁶ 88 FR 1196, 1197.

⁴⁷ Roy Spencer, UAH Global Temperature Update for August, 2023: +0.69 deg. C, RoySpencer.Com, September 4, 2023, <https://www.drroyspencer.com/2023/09/uah-global-temperature-update-for-august-2023-0-69-deg-c/>.

⁴⁸ Justin Ritchie and Hadi Dowlatabi. 2017. Why Do Climate Change Scenarios Return to Coal? *Energy* 140: 1276-1291, <https://www.sciencedirect.com/science/article/abs/pii/S0360544217314597>.

⁴⁹ RCP stands for “Representative Concentration Pathway”; SSP stands for Shared Socioeconomic Pathway. In both RCP8.5 and SSP5-8.5, the rise in GHG concentrations between 2000 and 2100 increases the preindustrial greenhouse effect by 8.5 watts per square meter (W/m^2).

⁵⁰ Roger Pielke, Jr. and Justin Ritchie, “How Climate Scenarios Lost Touch with Reality,” *Issues in Science & Technology*, Vol. XXXVII, No. 4, Summary 2021, <https://issues.org/climate-change-scenarios-lost-touch-reality-pielke-ritchie/>.

⁵¹ Some of those papers could, of course, be critical of high-end emission scenarios. However, the first 50 entries on SSP5-8.5 are exclusively studies that use the scenario to project climate change impacts. Hardly an exhaustive survey but quite suggestive.

⁵² David R. Legates et al. 2015. Climate Consensus and ‘Misinformation’: A Rejoinder to Agnotology, Scientific Consensus, and the Teaching and Learning of Climate Change. *Sci & Educ* 24: 299-318, <https://lweb.cfa.harvard.edu/~wsoon/myownPapers-d/LegatesSoonBriggsMonckton15-ScienceandEducation-FINAL.pdf>.

⁵³ Kewan Riahi et al. 2011. RCP8.5—A Scenario of Comparatively High Greenhouse Gas Emissions. *Climate Change* 109: 33-57, <https://link.springer.com/article/10.1007/s10584-011-0149-y>.

⁵⁴ Justin Ritchie and Hadi Dowlatabadi, The 1,000 GtC Coal Question: Are Cases of High Future Coal Combustion Plausible? Resources for the Future, RFF DP 16-45, 2016, <https://media.rff.org/documents/RFF-DP-16-45.pdf>.

⁵⁵ St. Louis FED, Producer Price Index by Industry: Coal, <https://fred.stlouisfed.org/series/PCU21212121> (accessed 9/11/2023).

⁵⁶ Riahi et al. Op. cit.

⁵⁷ Zeke Hausfather and Glenn P. Peters, “Emissions – the ‘business as usual’ story is misleading,” *Nature*, January 29, 2020, <https://www.nature.com/articles/d41586-020-00177-3>.

⁵⁸ Kevin Rennert et al. *The Social Cost of Carbon: Advances in Long-Term Probabilistic Projections of Population, GDP, Emissions, and Discount Rates*, Resources for the Future, October 2021, <https://www.rff.org/publications/working-papers/the-social-cost-of-carbon-advances-in-long-term-probabilistic-projections-of-population-gdp-emissions-and-discount-rates/>.

⁵⁹ 88 FR 49924, 49951.

⁶⁰ John R. Christy and Richard T. McNider. 2017. Satellite Bulk Tropospheric Temperatures as a Metric for Climate Sensitivity. *Asia-Pac. J. Atmos. Sci.*, 53(4), 511-518, <https://www.sealevel.info/christymcnider2017.pdf>.

⁶¹ Zeke Hausfather, “Cold Water on Hot Models,” The Breakthrough Institute, February 11, 2020, <https://thebreakthrough.org/issues/energy/cold-water-hot-models>.

⁶² McKittrick and J. Christy. 2020. Pervasive Warming Bias in CMIP6 Tropospheric Layers. *Earth and Space Science*, 7, Issue 9, <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2020EA001281>.

⁶³ Ross McKittrick and John Christy. 2018. A Test of the Tropical 200- to 300-hPa Warming Rate in Climate Models. *Earth and Space Science*, 5: 529–536, <https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2018EA000401>.