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Comments Submitted by Free Market Groups on the White House Council on Environmental Quality's Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions.

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Via www.regulations.gov

Thank you for the opportunity to comment on the Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions (Draft NEPA Guidance).¹ The comments are organized as follows.

- Part I reviews pertinent legislative background, emphasizing that NEPA does not authorize agencies to make climate policy.
- Part II finds that the Draft NEPA Guidance differs from the Obama CEQ Guidance only in emphasis and tone.
- Part III explains why project-level emissions are not, and should not be used as, proxies for climate change effects.
- Part IV explains why trying to solve climate change one project at a time is a fool's errand—an ineffectual waste of time and resources with costs vastly exceeding benefits.
- Part V explains why incorporating greenhouse gases into NEPA project review is bound to produce irrational decisions, not "better decisions," as the Obama CEQ claimed.
- Part VI explains why consideration of alternatives and mitigation measures is useful only for stoking anti-development activism.
- Part VII explains why social cost of carbon analysis would make NEPA reviews even more irrational by hiding raw political passions and ideological agendas behind a façade of knowledge and precision.
- Part VIII sums up and concludes our comments.

¹ Council on Environmental Quality (CEQ), Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions, 84 FR 30097-30099, June 26, 2019, <https://www.govinfo.gov/content/pkg/FR-2019-06-26/pdf/2019-13576.pdf>

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I. Introduction

Legislative Background

At the outset, it is useful to place the Draft NEPA Guidance in its proper legislative context. With only a few limited exceptions,² there currently are no federal restrictions on the use of fossil fuels (coal, oil, and natural gas) based on their contribution to climate change. Each of the many legislative attempts to target greenhouse gas emissions, including numerous “cap-and-trade” bills and carbon tax proposals, as well as the recent Green New Deal resolution, has been rejected by Congress.³ Nor has any President submitted the United Nations’ 1997 Kyoto Protocol or any subsequent climate-related treaty to the Senate for the constitutionally-required ratification vote.

In sum, the American people, through their elected representatives in Washington, have spoken on the matter of climate change measures, and their answer has repeatedly been no.

In the absence of any explicit legal mandate to target greenhouse gases, the Obama administration tried to derive such authority from environmental statutes that predate climate change as an issue and that were not intended to set climate policy. These attempts to pound a square peg into a round hole have led to highly problematic Obama-era policies. Notable examples include the so-called Clean Power Plan (CPP) elevating the Environmental Protection Agency (EPA) into a national electricity czar⁴ and a “national” motor vehicle program empowering the California Air Resources Board to determine Corporate Average Fuel Economy/greenhouse gas emissions (CAFE/GHG) standards for new cars and trucks.⁵

² Subsection 211(o) of Clean Air Act requires motor fuel refiners, blenders, and importers to sell specified volumes of “advanced” biofuels defined as having greenhouse gas emissions “at least 50 percent less than the baseline lifecycle greenhouse gas emissions” of petroleum-based fuels. However, the provision specifies that “Nothing in this subsection, or regulations issued pursuant to this subsection, shall affect or be construed to affect the regulatory status of carbon dioxide or any other greenhouse gas, or to expand or limit regulatory authority regarding carbon dioxide or any other greenhouse gas, for purposes of other provisions (including section 165) of this chapter.”

³ Arnold Reitze, *Air Pollution Control Law: Compliance and Enforcement* (Washington, D.C. Environmental Law Institute 2001) pp. 415-418; Marlo Lewis, “[Cap-and-trade] is not in my vocabulary,”—Harry Reid,” Open Market, July 13, 2010, <https://cei.org/blog/cap-and-trade-not-my-vocabulary-reid>; and Marlo Lewis, “The Environmental Protection Agency’s Breathtakingly Lawless Attempt to Regulate Greenhouse Gases,” *Forbes*, February 24, 2014, <https://www.forbes.com/sites/realspin/2014/02/25/the-environmental-protection-agencys-breathtakingly-lawless-attempt-to-regulate-greenhouse-gases/#33c38bd31490>

⁴ Comments of the Competitive Enterprise Institute et al., Repeal of Carbon Emission Standards for Existing Stationary Sources, EPA–HQ–OAR–2017–0355, April 26, 2018, https://cei.org/sites/default/files/CEI_Comments_-_Proposed_Rule_-_Clean_Power_Plan_Repeal.pdf

⁵ Comments of the Competitive Enterprise Institute, Safer Affordable Fuel-Efficient Vehicles Rule, EPA-HQ-OAR-2018-0283/NHTSA2018-0067, October 26, 2018, https://cei.org/sites/default/files/CEI%20CAFE%20Comments%20Final_0.pdf

Recognizing the damage from such costly and legally-suspect climate measures inherited from the Obama administration, the Trump administration is in the process of withdrawing or substantially revising many of them. This includes the Affordable Clean Energy (ACE) rule to replace the CPP, proposed major changes to the CAFE/GHG standards, and eventual exit from the Paris Climate Treaty.⁶ The undersigned organizations continue to support the Trump administration in these reforms and encourage more of them.

NEPA Is Not a Climate Policy Tool.

Of all the longstanding environmental statutes drafted into the climate wars by the previous administration, perhaps the most problematic example is the 1969 National Environmental Policy Act (NEPA). NEPA requires federal agencies with jurisdiction over a major project (including energy development or infrastructure projects that require one or more federal permits) to analyze the potential environmental impacts and consider a range of reasonable alternatives.

The statute, which was originally intended to serve as an environmental check list for such projects but not as a means to block development, has been subject to considerable mission creep and judicial reinterpretation since its enactment. As a result, the Environmental Impact Statements (EIS) required of significant projects often reach thousands of pages, cost millions and in some cases tens of millions of dollars to compile, and take an average of 4.5 years to complete.⁷ NEPA actions are also routinely subject to litigation from environmental organizations. NEPA's costs, delays, and litigation are such that many proposed projects are thwarted—which was never the purpose of this procedural statute.

While NEPA's mission creep is a problem that predates climate change, it has been greatly exacerbated by the Obama administration's push to include greenhouse gas considerations in each project's analysis. This is particularly problematic for energy infrastructure projects like oil and natural gas pipelines, and comes at a time when America's fracking revolution has increased the need for such projects.⁸ It similarly complicates approval of energy export facilities and thus jeopardizes the potential economic and geopolitical benefits associated with America's newfound status as a major energy exporter.⁹ America's growing energy dominance would be especially threatened if NEPA's traditional focus on the project itself is expanded to encompass greenhouse gas emissions upstream and downstream of the project.

⁶ Marlo Lewis, "The Constitutional Cure for the Paris Agreement," Open Market, June 1, 2018, <https://cei.org/blog/constitutional-cure-paris-agreement>

⁷ Council on Environmental Quality, *Environmental Impact Statement Timelines (2010-2017)*, December 14, 2018, https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Timelines_Report_2018-12-14.pdf

⁸ See, e.g., "Shortage of Oil and Natural Gas Pipelines," Institute for Energy Research, June 8, 2018, <https://www.instituteforenergyresearch.org/fossil-fuels/gas-and-oil/shortage-oil-natural-gas-pipelines/>; IHS Markit, "Feeling the Pinch: U.S. Midstream Capacity Constraints Put Chemical Producers Under Cost and Margin Pressure as Ethane Feedstock Demand Exceeds Supply Capability," October 22, 2018, <https://www.marketwatch.com/press-release/feeling-the-pinch-us-midstream-capacity-constraints-put-chemical-producers-under-cost-and-margin-pressure-as-ethane-feedstock-demand-exceeds-supply-capability-ihs-markit-says-2018-10-22>; and Energy Information Administration, "Con Ed limits natural gas service due to pipeline constraints in New York City area," May 22, 2019, <https://www.eia.gov/todayinenergy/detail.php?id=39572>.

⁹ Nick Loris, *Removing Restrictions on Liquid Natural Gas Exports: A Gift to the U.S. and Global Economies*, Heritage Foundation, Backgrounder No. 3232, July 27, 2017, <https://www.heritage.org/sites/default/files/2017-07/BG3232.pdf>

The Obama policy enabling a more expansive consideration of greenhouse gas emissions took final form in the August 1, 2016 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” (Obama CEQ Guidance).¹⁰ Fortunately, one of the Trump administration’s early energy policy actions, the March 28, 2017 “Presidential Executive Order on Promoting Energy Independence and Economic Growth,” completely rescinded the Obama CEQ Guidance.¹¹ This Executive Order was part of the new administration’s effort to “review existing regulations that potentially burden the development or use of domestically produced energy resources and appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources beyond the degree necessary to protect the public interest or otherwise comply with the law.” In its place, CEQ has now proposed its June 26, 2019 Draft NEPA Guidance, which is the subject of these comments.

The Draft NEPA Guidance, while in several respects an incremental improvement over the Obama CEQ Guidance, still allows for extensive consideration of climate impacts and is unlikely to appreciably reduce the delays and litigation surrounding fossil energy-related projects. As such, it falls short of the goals set out in the Executive Order necessitating it. As will be discussed below, NEPA is fundamentally ill-suited to the issue of climate change, and we therefore respectfully request that CEQ’s final guidance contain much stronger constraints on climate considerations in the NEPA process.

II. Draft NEPA Guidance: Incremental Improvements

CEQ’s Draft NEPA Guidance differs from the revoked Obama CEQ Guidance mainly in emphasis and tone.

For example, the Draft NEPA Guidance states more bluntly, or spotlights more clearly, certain caveats or limitations¹² acknowledged in the Obama CEQ Guidance:

- NEPA analyses should focus on “foreseeable environmental consequences of major Federal actions” and “should not consider those that are remote or speculative.”
- Impacts of a proposed action should be discussed “in proportion to their significance, and there should only be brief discussion of issues that are not significant.”
- NEPA analyses “need not give greater consideration to potential effects from GHG emissions than to other potential effects on the human environment.”
- There must be a “close causal connection” between a proposed agency action and an environmental effect to merit analysis under NEPA.
- “NEPA does not require agencies to adopt mitigation measures.”
- Agencies should not quantify a proposed action’s greenhouse gas emissions when those are “overly speculative” or not “substantial enough to warrant quantification.”
- NEPA does not require agencies “to monetize costs and benefits of a proposed action”; hence agency analysts “need not” use “any monetized Social Cost of Carbon (SCC) estimates . . . or other similar cost metrics.”

¹⁰ Council on Environmental Quality, 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

¹¹ The President, Promoting Energy Independence and Economic Growth, Executive Order 13783, 82 FR 16093-16097, March 28, 2017, <https://www.govinfo.gov/content/pkg/FR-2017-03-31/pdf/2017-06576.pdf>

¹² 84 FR 30098

- Because “the potential effects of GHG emissions are inherently a global cumulative effect,” no individual project measurably increases cumulative impact; hence a “separate cumulative effects analysis is not required.”

Although the points above are helpful, the Draft NEPA Guidance does not develop them in any detail. At least four points bear on the larger issue of whether NEPA is an appropriate framework for addressing greenhouse gases.

- (1) NEPA analyses should not consider environmental consequences that are “remote or speculative.” Implication: Projections of climate change impacts in 2050 and beyond are too remote and speculative to inform NEPA reviews. Indeed, such projections often derive from overheated models run with inflated emission scenarios under unreasonably pessimistic assumptions about human adaptive capability.¹³
- (2) Impacts should be discussed “in proportion to their significance.” Implication: Agencies should devote little or no time analyzing project-related greenhouse gas emissions, given the insignificance and, indeed, unknowability of the associated climate impacts.
- (3) There must be a “close causal connection” between a proposed agency action and an environmental effect to merit analysis under NEPA. There is no discernible causal connection between approving an individual project and climate change effects.
- (4) Agencies should not quantify a proposed action’s greenhouse gas emissions when those are not “substantial enough to warrant quantification.” No project’s emissions are “substantial enough” to produce identifiable climate change effects. Accordingly, such emissions are too small to warrant quantification.

CEQ should have elucidated those implications and invited comment on them.

As for the difference in tone, the Draft NEPA Guidance deletes the Obama CEQ’s climate angst. There are no warnings about “more frequent and intense heat waves, longer fire seasons and more severe wildfires, degraded air quality, more heavy downpours and flooding, increased drought, greater sea-level rise, more intense storms, harm to water resources, harm to agriculture, ocean acidification, and harm to wildlife and ecosystems.”¹⁴ There is no endorsement of the U.S. Global Change Research Program as an authoritative source.¹⁵ There is no claim that the Obama administration’s social cost of carbon estimates reflect “the best available science and methodologies” or provide a “harmonized, interagency metric that can give decision makers and the public useful information for their NEPA review.”¹⁶

¹³ Marlo Lewis, *A Citizen’s Guide to Climate Change*, Competitive Enterprise Institute, On Point, No. 255, June 11, 2019, https://cei.org/sites/default/files/Marlo_Lewis_-_A_Citizen_s_Guide_to_Climate_Change.pdf

¹⁴ Obama CEQ Guidance, p. 9

¹⁵ For exposés of the junk science peddled by the USGCRP in its 2000, 2009, 2014, and 2018 National Climate Assessment reports, see Patrick J. Michaels and Paul C. Knappenberger, *Lukewarming: The New Climate Science that Changes Everything* (Washington, D.C.: Cato Institute, 2016), chapter 21; Patrick J. Michaels, Comments on the Fourth National Climate Assessment, Cato Institute, February 1, 2018, <https://www.cato.org/publications/public-comments/comments-fourth-national-climate-assessment>, and “Time to Cool It: The U.N.’s Moribund High-End Emissions Scenario,” Cato at Liberty, February 28, 2018, <https://www.cato.org/blog/time-cool-it-uns-moribund-high-end-global-warming-emissions-scenario>

¹⁶ Obama CEQ Guidance, p. 33

However, the Draft NEPA Guidance retains the Obama CEQ's core methodological premise, namely, 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."¹⁷ That is incorrect, as we explain in the next section.

III. GHG Emissions Are Not Proxies for Climate Effects.

The theory of anthropogenic global warming holds that cumulative global GHG emissions over decades to centuries will have climate change effects. It does not postulate that incremental emissions have discernible climate impacts. For example, even an entire year's worth of global emissions is too small to produce predictable climate change effects.¹⁸ Consequently, the vastly smaller quantities of GHG emissions attributable to specific projects can have no knowable climate effects.

A proxy voter can cast a real, countable, ballot for an absent 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 observable, testable, or otherwise discernible relationship exists between project-level greenhouse gas emissions and climate change effects. To call the former a "proxy" for the latter is an abuse of terminology.

Illusory Thresholds of Meaning and Significance

Both the Obama and Trump CEQs acknowledge that individual projects do not measurably affect GHG concentrations or climate change effects. As the Obama CEQ's initial Draft NEPA Guidance in 2010 observed, "From a quantitative perspective, there are no dominating sources and fewer sources that would even be close to dominating total GHG emissions."¹⁹

The 2010 Draft NEPA Guidance proposed that 25,000 tons or more of annual carbon dioxide-equivalent emissions could provide "an indicator that a quantitative and qualitative assessment may be meaningful to decision makers and the public."²⁰ However, the document immediately clarified that CEQ 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."²¹

¹⁷ 84 FR 30098

¹⁸ With one ironic exception—global greening from carbon dioxide fertilization effect is now so immense and rapid that its progress can be measured on relatively short time scales. See Donahue et al. 2014. Impact of CO₂ fertilization on maximum foliage cover across the globe's warm, arid environments. *Geophysical Research Letters*, 40: 1-5, https://friendsofscience.org/assets/documents/CO2_Fertilization_grl_Donohue.pdf; Zhu et al. 2016. Greening of the Earth and its drivers. *Nature Climate Change* 6: 791-795, <https://www.nature.com/articles/nclimate3004>; Campbell et al. 2017. Large historical growth in terrestrial gross primary production, *Nature* 544: 84-87, <https://www.nature.com/articles/nature22030>; and O'Sullivan, M.O., et al. 2019. Have synergies between nitrogen deposition and atmospheric CO₂ driven the recent enhancement of the terrestrial carbon sink? *Global Biogeochemical Cycles* 33: (2) <https://doi.org/10.1029/2018GB005922>

¹⁹ 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>

²⁰ 2010 CEQ Draft NEPA Guidance, p. 2

²¹ 2010 CEQ Draft NEPA Guidance, p. 2

The 2010 Draft Guidance further clarified: “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 climatological significance, CEQ stated: “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.”²²

Nonetheless, 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 climatically “significant”?²³

CEQ’s 2014 Draft NEPA Guidance devoted several pages to the issue without resolving it. CEQ again proposed a 25,000 metric reference point while disclaiming an intent to make a “determination of significance.”²⁴ 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.”²⁵

However, that restates rather than removes 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.

The 2014 Draft NEPA Guidance notes that many commenters called for raising the disclosure threshold from 25,000 tons to 75,000-100,000 tons per year—the permitting thresholds set forth in the Environmental Protection Agency’s 2010 greenhouse gas Tailoring Rule.²⁶ The commentators noted that 25,000 metric tons represents only 5/100,000th of 1 percent of global annual GHG emissions. “Some commentators went so far as to say that there should be no analysis of GHG emissions in the NEPA context.”²⁷ That sounds reasonable to us. Predictably, other commenters claimed climate change is too important for any GHG source to be exempt from NEPA scrutiny.²⁸

The 2014 Draft NEPA Guidance decided to stick with the 25,000 ton-threshold, citing EPA’s Mandatory Reporting of Greenhouse Gases Rule²⁹ and “administrative necessity.” EPA judged that a 25,000 ton disclosure threshold is “1) low enough to pull in the majority of large stationary sources of greenhouse

²² 2010 Draft NEPA Guidance, p. 3

²³ CEQ, Revised Draft Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews, 77 FR 77809-77810, December 24, 2014, <https://www.govinfo.gov/content/pkg/FR-2014-12-24/pdf/2014-30035.pdf>

²⁴ 77 FR 77810

²⁵ 77 FR 77810

²⁶ EPA, Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule, 75 FR 31514-31608, June 3, 2010, <https://www.govinfo.gov/content/pkg/FR-2010-06-03/pdf/2010-11974.pdf>. The Supreme Court vacated the Tailoring Rule in *Utility Air Regulatory Group v. EPA* (2014), <https://supreme.justia.com/cases/federal/us/573/12-1146/#tab-opinion-1970957>

²⁷ 77 FR 77810

²⁸ 77 FR 77811

²⁹ EPA, Mandatory Reporting of Greenhouse Gases; Final Rule, 74 FR 56260-56519, October 30, 2009, <https://www.govinfo.gov/content/pkg/FR-2009-10-30/pdf/E9-23315.pdf>

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.”³⁰

However, the relevance of EPA’s GHG reporting thresholds to NEPA project reviews is unclear. Section 114 of the Clean Air Act authorizes EPA to require emissions data from stationary sources regulated under sections 110, 111, and 112, and section 208 authorizes EPA to require emissions rate data from manufacturers of engines and vehicles regulated under Title II. NEPA has no similar provisions, presumably because CEQ does not regulate emissions.

More importantly, EPA’s greenhouse gas reporting rule already covers “all sectors of the economy” with specific reporting requirements for dozens of industrial categories and subcategories.³¹ It is not clear what additional policy-relevant GHG emissions data NEPA reviews would provide, or what authority CEQ has to require such data from infrastructure projects, which are not among EPA’s source categories.

In any event, the final 2016 Obama CEQ Guidance dropped the 25,000 ton without a word of explanation or comment. Perhaps CEQ just gave up trying to explain how analyzing emissions that are not “significant” could still be “meaningful.”

The Draft NEPA Guidance similarly declines to define a “meaningful” numerical threshold justifying inclusion of GHG emissions in project reviews—again, perhaps, because it cannot be done. But by not explaining the dubiousness of such an exercise, the Draft NEPA Guidance provides no barrier to future administrations claiming thresholds are “meaningful” based on nothing more than the planetary emergency narrative and administrative convenience.

IV. Fool’s Errand

While abandoning a numerical “reference point” for “meaningful” GHG analysis, the Obama CEQ Guidance nonetheless insisted that NEPA is an appropriate framework for analyzing climate effects:

Climate change results from the incremental addition of GHG emissions from millions of individual sources, which collectively have a large impact on a global scale. CEQ recognizes that the totality of climate change impacts is not attributable to any single action, but are exacerbated by a series of actions including actions taken pursuant to decisions of the Federal Government. Therefore, a statement that emissions from a proposed Federal action represent only a small fraction of global emissions is essentially a statement about the nature of the climate change challenge, and is not an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA.³²

That is a non sequitur. If climate change results from the “incremental addition of GHG emissions from millions of individual sources,” and “emissions from a proposed federal action represent only a small fraction of global emissions” (perhaps no more than a few hundred thousandths of 1 percent), then the GHG emissions from any individual action are climatically inconsequential. Attempting to solve the climate change challenge one project at a time is like trying to drain a swimming pool one thimbleful at a

³⁰ 77 FR 77818

³¹ 74 FR 56260, 56266-67

³² Obama CEQ Guidance, p. 10

time. It is a fool's errand. An individual project's GHG emissions is an inappropriate basis for approving or rejecting the project, especially in the absence of a clear congressional directive to do so.

The Obama CEQ Guidance continues:

Moreover, these comparisons are also not an appropriate method for characterizing the potential impacts associated with a proposed action and its alternatives and mitigations because this approach does not reveal anything 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 impact.³³

On the contrary, a comparison revealing the climatological insignificance of a proposed project also reveals that phantom ("proxy") climate effects are not an appropriate subject for NEPA review.

It should be noted that, in an apparent effort to inflate GHG emissions and expand the scope of NEPA review, the Obama administration initially proposed including emissions upstream of a fossil fuel infrastructure project (the emissions attributable to fossil fuel production) as well as those downstream (the combustion of the fuel by end users). This highly problematic expansion of NEPA beyond its statutory focus on the project itself proved so controversial that it was dropped in the final Obama CEQ Guidance.³⁴ In any event, even the inclusion of these other emissions would not have made any individual action climatically consequential.

A prime case in point is the Keystone XL Pipeline, perhaps the largest project to receive NEPA scrutiny for greenhouse gases in recent years. Even under the unrealistic assumptions that the KXL runs at full capacity (800,000 barrels per day) year-round and each barrel is additional oil produced solely to meet demand induced by the pipeline, the project would add less than 0.01°C of warming to global temperatures between now and 2100, according to MAGICC, EPA's climate change impact calculator.³⁵

That vanishingly small and unverifiable change³⁶ in average global temperatures 81 years from now would have no discernible impact on weather patterns, crop yields, polar bear populations, or any other environmental condition people care about. Contrary to activist and media spin, the Keystone XL Pipeline is climatologically irrelevant. Yet NEPA-based reviews of the KXL's climate change implications continued over a period of almost 11 years—from July 2008³⁷ to June 2019.³⁸

³³ Obama CEQ Guidance, pp. 10-11

³⁴ See, e.g., James Coleman, *Beyond the Pipeline Wars: Reforming Environmental Assessment of Energy Transport Infrastructure*, (Utah Law Review 2018), pp. 129-131, <https://dc.law.utah.edu/cgi/viewcontent.cgi?article=1142&context=ulr>.

³⁵ Testimony of Paul C. "Chip" Knappenberger before the Subcommittees on Energy and Environment of the House Committee on Science, Space, and Technology, hearing on "Keystone XL Pipeline: Examination of the Scientific and Environmental Issues," May 7, 2013, <http://www.cato.org/publications/testimony/keystone-xl-pipeline-examination-scientific-environmental-issues>

³⁶ According to NOAA, 0.08°C is the margin of error in estimates of average annual global temperature, or eight times the increase from the KXL under the aforementioned unrealistic assumptions. See NOAA, "Global Temperature Uncertainty," <https://www.ncdc.noaa.gov/monitoring-references/faq/global-precision.php>

³⁷ The Associated Press, A Timeline of the Keystone XL oil pipeline, January 24, 2017, <https://apnews.com/5831ea1867454124aa4a97bc8d72e48b>

³⁸ In November 2018, U.S. District Judge Brian Morris enjoined the State Department and TransCanada Corporation from engaging in any activities in furtherance of the KXL pending a "completed supplement" to the 2014 supplemental environmental impact statement that "complies with the requirements of NEPA and the APA." The

Clearly, there was no “proportionality” between the resources and time devoted to analyzing the Keystone XL Pipeline’s direct and indirect emissions and the speculative, remote, undetectable climate impacts the project might entail.

Moreover, there was no proportionality between the KXL’s potential economic benefits and its potential climate damages in the remote future. For example, during its 17 months of construction, the southern leg of the KXL (the “Gulf Coast Pipeline”) injected an estimated \$5.7 billion into the Texas and Oklahoma economies, created thousands of jobs, and generated tens of millions of dollars in state and local tax revenues.³⁹

The ongoing Keystone XL Pipeline saga shows how easily applying NEPA to greenhouse gases fuels the statute’s illegitimate use as an anti-development weapon. The political implication of the “nature of the climate change challenge,” as described by the Obama CEQ Guidance, has not been lost on progressive politicians and activists. To wit: If individual projects “collectively” have a “large impact,” then agencies should deny permission to as many projects as possible—ideally, to all. We turn to that problem next.

V. Promoting Irrationality

The rescinded Obama CEQ Guidance claimed that incorporating GHG emissions and climate change effects in NEPA review would lead to “better decisions.”⁴⁰ The Keystone XL Pipeline controversy shows that incorporating climate concerns leads to irrational decisions.

The State Department’s NEPA review concluded that the KXL is the ‘climate friendly’ option. What chiefly determines international oil flows is global demand, not particular infrastructure projects. Accordingly, State concluded that U.S. refiners would import about the same quantity of Canadian crude whether permission to build the KXL is granted or denied. However, the alternative modes of transport—trains, smaller pipelines, and barges—are less energy efficient than a large pipeline. Consequently, blocking the KXL would increase net carbon dioxide emissions by 28 to 42 percent relative to the pipeline approval scenario.⁴¹ That finding plus the negligible amount of warming attributable to the KXL even under unrealistic worst-case assumptions should have ended the controversy.

Judge’s order is available here: <https://assets.documentcloud.org/documents/5031466/Keystone-XL-pipeline-order-issued-by-U-S.pdf>. In June 2019, a panel of federal judges for the 9th U.S. Circuit vacated Judge Morris’s injunction. See Pamela King, “Judges: Keystone XL construction can begin,” E&E News, June 9, 2019, <https://www.eenews.net/stories/1060504725>.

³⁹ Institute for Energy Research, “States Already Benefiting from Southern Leg of Keystone,” July 8, 2014, <https://www.instituteforenergyresearch.org/fossil-fuels/gas-and-oil/states-benefitting-southern-leg-keystone-bakken-gets-pipelines/>

⁴⁰ Obama CEQ Guidance, p. 6

⁴¹ State Department, *Final Supplemental Environmental Impact Assessment for the Keystone XL Pipeline Project*, Executive Summary, January 2014, Errata Sheet, 34, <http://keystonepipeline-xl.state.gov/documents/organization/221135.pdf>

However, the mere fact that State's NEPA analysis considered greenhouse gas emissions and climate change effects enabled opponents to organize years of protests, mobilize thousands of activists, and demonize a single infrastructure project as a planet wrecker.⁴²

Although Canada is our closest ally, biggest trading partner, and largest supplier of imported oil, and even though pipelines are more efficient, less liable to oil spill risk, and safer than alternative routes of delivery,⁴³ President Obama reduced the "national interest determination" to a single factor: Whether the Keystone XL Pipeline would "significantly exacerbate the problem of carbon pollution."⁴⁴ That litmus test ensured that climate politics rather than climate science would carry the day.

Shortly before the Paris climate summit, President Obama concluded that the KXL is not in the U.S. national interest. He explained: "America is now a global leader when it comes to taking serious action to fight climate change, and frankly, approving this project would have undercut that leadership."⁴⁵ In other words, political optics, not the State Department's economic and environmental analyses, would determine whether a multi-billion dollar private investment in U.S. energy infrastructure is in the U.S. national interest.

For the Obama administration, the point of State's multiple NEPA reviews was not to gather more data about the KXL's climate impacts but to keep the political pot boiling, recruit activists, and spread fear and loathing of "dirty" fuels.

CEQ should ponder the lessons of this recent history. Using NEPA as a climate policy framework is a proven method to embroil energy infrastructure in ideological controversy, block or delay actions whose economic benefits vastly outweigh any associated climate damages, and feed the hubris of those who believe government exists to bankrupt industries they don't like. The Draft NEPA Guidance does not close the door to any of this.

VI. Consideration of Alternatives Is Useful Only for Stoking Anti-Development Activism.

The Obama CEQ Guidance states that agencies "should consider reasonable alternatives and mitigation measures to reduce action-related GHG emissions or increase carbon sequestration in the same fashion as they consider alternatives and mitigation measures for any other environmental effects."⁴⁶ The Draft NEPA Guidance similarly directs agencies to consider "reasonable alternatives to the proposed action and discuss the short- and long-term effects and benefits of those alternatives," with the comparison of alternatives based partly on their respective GHG emissions.⁴⁷ That makes no environmental sense.

In the case of conventional pollutants or landscape alterations, considering alternatives and mitigation measures may help conserve the resources or safeguard the health of identifiable communities. No detectable benefits accrue to communities from alternatives or mitigation measures that infinitesimally reduce global GHG concentrations.

⁴² Marlo Lewis, "Keystone XL: Does Hatred Blind Peace Prize Winners?" GlobalWarming.Org, April 18, 2018, <http://www.globalwarming.org/2014/04/18/keystone-xl-does-hatred-blind-peace-prize-winners/>

⁴³ State, FSEIS, ES

⁴⁴ Remarks by the President on Climate Change, Georgetown University, June 25, 2013, <http://www.whitehouse.gov/the-press-office/2013/06/25/remarks-president-climate-change>

⁴⁵ Elise Labott and Dan Berman, CNN, "Obama rejects Keystone XL Pipeline," CNN Politics, November 6, 2015, <https://www.cnn.com/2015/11/06/politics/keystone-xl-pipeline-decision-rejection-kerry/index.html>

⁴⁶ Obama CEQ Guidance, p. 15

⁴⁷ 84 FR 30098

The only discernible value of such analyses is political and dilatory. It is a great way to keep activists “thinking globally and acting locally” against affordable energy while projects remain in NEPA limbo for years.

VII. Social Cost of Carbon: Too Speculative and Subjective to Inform Project Reviews

We applaud CEQ’s clarification that NEPA does not require agencies to use “any monetized Social Cost of Carbon (SCC) estimates . . . or other similar cost metrics.” However, CEQ’s final guidance should go further and explain why the social cost of carbon is too speculative and subjective to inform NEPA project reviews.

Incorporating SCC analysis would turn environmental impact statements into pseudo-science. Most infrastructure projects subject to NEPA review are built to last. By multiplying the presumed social cost of carbon by some estimate of the project’s direct, indirect, and cumulative emissions over the next 280 years, opponents can fool people into believing that the project’s social costs, although utterly unverifiable, outweigh its manifest economic benefits.

SCC Basics

Before elaborating those points, it is useful to review how SCC estimation works. The following discussion borrows freely from the Obama EPA’s 2016 Social Cost of Carbon Fact Sheet.⁴⁸

The social cost of carbon is an estimate in dollars of the cumulative long-term damage done by a ton of CO₂ emitted in a given year. That dollar figure also represents an estimate of the benefit of avoiding or reducing one ton of CO₂ emissions.

The computer programs used to project SCC values are called integrated assessment models (IAMs) because they combine a climate model, which estimates the physical impacts of CO₂ emissions, with an economic model, which estimates the dollar value of climate change impacts on agricultural productivity, property values, and other economic variables.

In federal agency analyses, the cumulative damage of an incremental ton of CO₂ emissions is estimated from the year of the emission’s release until 2300. SCC estimates are highly sensitive to the discount rates chosen to calculate the present value of future emissions and reductions. The lower the discount rate, the higher the present value of future climate damages and emission reductions, and vice versa.

Federal agencies average the results of three IAMs to estimate SCC values. For any given year, the Obama administration’s Interagency Working Group (IWG) provided four SCC estimates. The first three values presented SCC at discount rates of 5, 3, and 2.5 percent. The IWG also estimated a fourth value to represent the incremental damages associated with “lower-probability, higher-impact” events such as ice sheet collapse.

In the Regulatory Impact Analysis for the final Affordable Clean Energy (ACE) rule, the Trump administration discontinued certain Obama-era accounting gimmicks that inflate the benefit-cost ratios of climate policy regulations.⁴⁹ Specifically, as required for regulatory accounting by OMB Circular A-4,

⁴⁸ EPA Fact Sheet: Social Cost of Carbon, 2016, https://www.epa.gov/sites/production/files/2016-12/documents/social_cost_of_carbon_fact_sheet.pdf

⁴⁹ EPA, Regulatory Impact Analysis for Repeal of the Clean Power Plan, and Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, EPA-452/R-19-003, June 2019, Chapter 7,

EPA now uses discount rates of 7 percent and 3 percent to estimate present value, and compares regulatory costs to domestic SCC benefits rather than the much larger global SCC benefits.

Although helpful, the Trump-era reforms do not challenge agencies' reliance on dated (and likely overheated) climate sensitivity assumptions.⁵⁰ Nor do the reforms discontinue the use of two structurally-biased IAMs⁵¹ that do not include robust carbon dioxide fertilization benefits.⁵² Social cost continues to be calculated from damages projected out to the year 2300, which is about 150 years beyond the range of informed speculation about global economic and energy trends.

Pretense of Knowledge and Precision

IAMs have a role in academic research, allowing analysts to see how different physical and economic assumptions drive estimates of climate-related impacts and regulatory benefits. However, using IAMs to make policy "suggests a level of knowledge and precision that is simply illusory, and can be highly misleading," MIT professor Robert Pindyck cautions.⁵³ He explains:

The modeler has a great deal of freedom in choosing functional forms, parameter values, and other inputs, and different choices can give wildly different estimates of the SCC and the optimal amount of abatement. You might think that some input choices are more reasonable or defensible than others, but no, "reasonable" is very much in the eye of the modeler. Thus these models can be used to obtain almost any result one desires.⁵⁴

What climate campaigners and their agency allies typically desire is to sustain the narrative that climate change is "worse than we thought." Unsurprisingly, the central SCC estimates in the Obama administration's 2013 technical support document (TSD) were about 60 percent higher than the corresponding estimates in the administration's 2010 TSD.⁵⁵ In four short years, cumulative climate change impacts from 2000 to 2300 became almost 60 percent worse!

https://www.epa.gov/sites/production/files/2019-06/documents/utilities_ria_final_cpp_repeal_and_ace_2019-06.pdf

⁵⁰ Marlo Lewis, "Posting Updated List of Studies Finding Low Climate Sensitivity," March 6, 2019, GlobalWarming.Org, <http://www.globalwarming.org/2019/03/06/posting-updated-list-of-recent-studies-finding-low-climate-sensitivity/>

⁵¹ The DICE (Dynamically Integrated Climate and Economy) model developed by William Nordhaus and PAGE (Policy Analysis of the Greenhouse Effect) model developed by Chris Hope contain no significant CO₂ fertilization function. The FUND (Climate Framework for Uncertainty, Negotiation, and Development) developed by Richard Tol contains a strong CO₂ fertilization function. Apparently, however, the model's CO₂ benefit estimates have not been updated in 20 years.

⁵² For further discussion, see Marlo Lewis, Free Market Groups' Comments on EPA's Proposal to Repeal the Clean Power Plan, April 26, 2018, https://cei.org/sites/default/files/CEI_Comments_-_Proposed_Rule_-_Clean_Power_Plan_Repeal.pdf

⁵³ Robert Pindyck, Climate Change Policy: What Do Models Tell Us? Working Paper 19244, July 2013, <http://www.nber.org/papers/w19244>

⁵⁴ Ibid., p. 5

⁵⁵ U.S. Government Accountability Office, Regulatory Impact Analysis: Development of Social Cost of Carbon Estimates, July 2014, p. 7, <https://www.gao.gov/assets/670/665016.pdf>

Table 1: Central Values for the Social Cost of Carbon Estimates Issued by the Interagency Working Group on Social Cost of Carbon in 2010 and 2013

Dollars are 2007 dollars per metric ton of carbon dioxide

Year	2010 central values	2013 central values
2010	\$21	\$32
2020	26	43
2030	33	52
2040	39	61
2050	\$45	\$71

Source: Interagency Working Group on Social Cost of Carbon's Technical Support Document and 2013 update. | GAO-14-663

Raise SCC estimates high enough, and modelers can make fossil fuels look unaffordable no matter how cheap and renewable energy look like a bargain at any price. Consider a study co-authored by Chris Hope, creator of the PAGE (Policy Analysis of the Greenhouse Effect) model, one of the three IAMs used in federal agency SCC estimation.

Selecting a 1 percent discount rate, Hope and his colleagues estimate that in 2010, the SCC was already \$266/ton—830 percent larger than the Obama administration's central SCC estimate. They conclude that new renewable generation is more "efficient" than either new gas or existing coal generation.⁵⁶

Such computer-aided sophistry could easily be deployed in NEPA project reviews. Invoking high-end SCC estimates, and toting up direct and indirect emissions out to 2300, opponents of fossil fuel infrastructure could claim that any project is economically "inefficient" regardless of its expected return on investment.

SCC modelers are free to select below-market discount rates because discounting involves ethical judgments about intergenerational equity. How much material well-being should the poorer present generation be willing to sacrifice to enhance the welfare of wealthier future generations? That is primarily a philosophic rather than a technical or scientific question, which in practice means it is often an ideological or partisan question.

Modelers also have great freedom in selecting other critical IAM inputs because the physical and economic variables affecting carbon's social cost are so uncertain. SCC estimates are intractably conjectural because:

- No one can forecast the baseline emission trajectory of the global economy out to 2300, but it is only in relation to some assumed baseline that the incremental effects of the next ton of CO₂ might be estimated.

⁵⁶ Laurie Johnson, Starla Yeh, and Chris Hope, "The Social Cost of Carbon: Implications for Modernizing Our Electricity," *Journal of Environmental Studies and Sciences*, December 2013, Volume 3, Issue 4, pp. 369–375, <https://link.springer.com/article/10.1007/s13412-013-0149-5>

- SCC modelers are free to use any business-as-usual scenario published in the literature, including the ever-popular but increasingly obsolete RCP 8.5,⁵⁷ which assumes coal generation scales up to provide nearly half of global energy by 2100—a level not seen since 1940 (see images below).⁵⁸
- Scientists do not know the relative strength of the positive and negative feedbacks that amplify or constrain the climate’s response to rising CO₂ concentrations, which is why the “likely” range of climate sensitivity is 1.5°C—4.5°C in both the IPCC’s first (1990) assessment report⁵⁹ and fifth (2013) assessment report.⁶⁰
- To guesstimate climate damages, IAMs must also make non-validated assumptions about how rising temperatures will affect weather patterns, ice-sheet dynamics, and other natural phenomena, and how such physical changes will affect agriculture, other climate-sensitive industries, and consumption absent adaptive responses.
- Human beings use technology to adapt to environmental conditions. Consequently, the “damage functions” in IAMs—the projected impacts of climate change on consumption, climate-sensitive industries, and human health—depend on assumptions about how technology will develop as the world warms. Nothing is harder to forecast than long-term technological change.

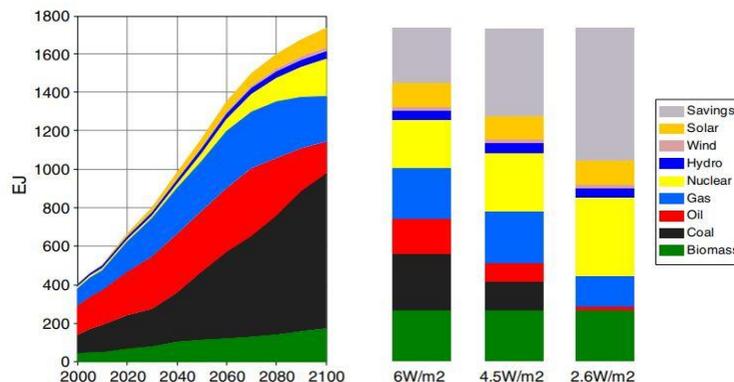


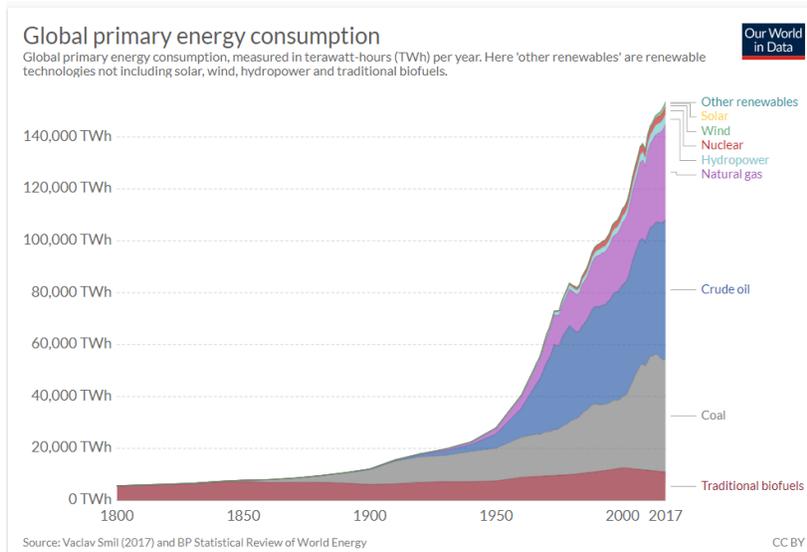
Fig. 5 Development of global primary energy supply in RCP8.5 (*left-hand panel*) and global primary energy supply in 2100 in the associated mitigation cases stabilizing radiative forcing at levels of 6, 4.5, and 2.6 W/m² (*right-hand bars*). Note that primary energy is accounted using the direct equivalent method

⁵⁷ Zeke Hausfather, “Explainer: The high emissions ‘RCP8.5’ global warming scenario, Carbon Brief, 21 August 2019, <https://www.carbonbrief.org/explainer-the-high-emissions-rcp8-5-global-warming-scenario>; Kevin Murphy, “Reassessing the RCPs,” Climate Etc., January 28, 2019, <https://judithcurry.com/2019/01/28/reassessing-the-rcps/>

⁵⁸ Riahi et al. RCP 8.5—A scenario of comparative high greenhouse gas emissions, *Climate Change* (2011) 109: 33-57, <https://link.springer.com/article/10.1007/s10584-011-0149-y>; Hannah Ritchie and Max Roser, “Energy Production & Changing Energy Sources,” Our World in Data, <https://ourworldindata.org/energy-production-and-changing-energy-sources>

⁵⁹ IPCC, First Assessment Report (FAR), *Climate Change: The IPCC Scientific Assessment* (1990), Chapter 5, Equilibrium Climate Change, p. 139, https://www.ipcc.ch/ipccreports/far/wg_1/ipcc_far_wg_1_chapter_05.pdf

⁶⁰ IPCC, *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, Summary for Policymakers, p. 16, http://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_SPM_FINAL.pdf



To its credit, the Draft NEPA Guidance states that agencies are not required to use SCC estimates in project reviews. But given the serious limitations with the social cost of carbon, CEQ should expressly disapprove its use in NEPA reviews.

VIII. Conclusion

Mitigating climate change one project at a time is a fool's errand akin to draining a swimming pool one thimbleful at a time. Worse, the economic losses from blocking particular projects based on greenhouse gas considerations are bound to vastly exceed the speculative climate benefits. Moreover, because affordable energy and economic growth are critical to human mastery of climate-related risks,⁶¹ and because the climatological significance of any infrastructure project is for all practical purposes nil, blocking energy infrastructure or other private investment requiring federal agency approvals in the name of climate protection is bound to do more harm than good.

Congress did not direct CEQ to make climate policy, and NEPA review is unsuited for addressing climate change concerns. Accordingly, project-related GHG emissions should not be a factor determining whether agencies approve or reject project proposals.

The rejoinder, conveniently furnished by the Obama CEQ Guidance, is that although "individual sources of emissions each make relatively small additions to global atmospheric GHG concentrations," the myriad diverse sources "collectively have large impact."⁶² The political implication is obvious: To mitigate "large impact," 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 and suffering 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 desired by activist groups.

⁶¹ Indur M. Goklany, *Wealth and Safety: The Amazing Decline in Deaths from Extreme Weather in an Era of Global Warming*, Reason Policy Study 393, September 2011, https://reason.org/wp-content/uploads/files/deaths_from_extreme_weather_1900_2010.pdf

⁶² Obama CEQ Guidance, p. 10

The Draft NEPA Guidance is an incremental improvement over its Obama CEQ Guidance. However, it fails to expressly make a case against any of the mischief promoted by its Obama-era predecessor. Given the expansive direction of NEPA throughout its history and the aggressive efforts underway to transform it into a climate policy tool, the language in the Draft NEPA Guidance is too general and terse to discourage future abuses of the law.

Given the NEPA's statutory text and legislative purpose, it is reasonable to conclude that GHG emissions have no role in the NEPA review process. At the very least, CEQ should advise agencies to limit NEPA reviews to emissions for which the project is primarily responsible and eschew consideration of upstream and downstream emissions, which may occur anywhere in the national or global economy; and decline to base decisions on social cost of carbon estimates, which are intractably speculative and highly susceptible to political manipulation.

Including such admonitions would provide essential support for the President's Executive Order rescinding the Obama CEQ Guidance in order to safeguard energy infrastructure and economic growth.

Those who wish to create climate policy should do so through the proper venue—new legislation specifically addressing the subject—rather than by the reinterpretation of a fifty-year old statute never intended and completely inappropriate for the purpose. We respectfully request that the Final NEPA Guidance reflect this important distinction and properly constrain the consideration of GHG emissions in project reviews.

Sincerely,

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