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March 10, 2020

To: Council on Environmental Quality
Subject: Comments on Climate Analysis under Update to Regulations Implementing Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684 ("Proposed Rule")
Docket: CEQ-2019-0003
Submitted by: Environmental Defense Fund, Institute for Policy Integrity at New York University School of Law, Montana Environmental Information Center, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, WildEarth Guardians¹

The following comments on the proposed revisions to the implementing regulations of the National Environmental Policy Act ("NEPA")² focus on the implications for how agencies analyze the climate impacts of their actions. Although the Proposed Rule's direct discussion of greenhouse gases is limited to a reference to a June 2019 CEQ proposal,³ numerous of its provisions attempt to undermine the analysis of climate effects under NEPA, causing agencies to disregard or fail to meaningfully consider climate-related impacts in their decisions about major federal actions. Furthermore, a number of the proposed revisions either contradict or undermine NEPA.

These comments focus on four areas of NEPA analysis—which are particularly important to the analysis of climate impacts—that would be detrimentally altered if the proposal were finalized: evaluation of significance, monetization of effects, determination of whether effects are additional or would have happened anyway, and appropriate consideration of global effects. Specifically, these comments make the following points:

- NEPA requires a thorough and contextual assessment of potentially significant climate impacts, which the social cost of greenhouse gases helps provide. While CEQ should promote NEPA compliance through appropriate use of the social cost of greenhouse gases when relevant, the Proposed Rule instead continually attempts to undermine proper consideration of global climate impacts.
- To assess the significance of an action's greenhouse gas emissions, relative comparisons alone do not satisfy NEPA's hard look requirement. The Proposed Rule's revisions to 40 C.F.R. § 1508.27 that would require agencies to assess an impact's "degree" rather than its

¹ Our organizations may separately and independently submit other comments to the Proposed Rule.

² Update to Regulations Implementing Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684 (Jan. 10, 2020) [hereinafter "Proposed Rule"].

³ See Proposed Rule, 85 Fed. Reg. at 1710 (citing 84 Fed. Reg. at 30,097).

“intensity”⁴ could arguably be read to imply that agencies should assess significance by making a relative comparison to some baseline, such as national greenhouse gas emissions. However, this is an insufficient approach to determining the significance of a project’s climate impacts.

- NEPA requires agencies to consider the full array of potentially significant environmental effects of an action. By providing that agencies do not have to consider effects if they occur “remote in time” or are “geographically remote,”⁵ the Proposed Rule violates NEPA.
- CEQ explains that these revisions to the provisions on “significance” are needed because focusing on temporal and geographically remote effects “can divert agencies from focusing their time and resources on the most significant effects.”⁶ But climate impacts are often extraordinarily significant, belying this stated rationale. First, many significant climate effects are both local and near-term; second, the fact that some climate effects could be characterized by some agencies as somewhat less immediate does not automatically make those climate effects insignificant. As the social cost of greenhouse gases reveals, total climate damages of an individual project often can comprise tens or hundreds of billions of dollars—hardly an insignificant effect.
- Courts require agencies to take a balanced approach to assessing an action’s costs and benefits. The Proposed Rule would enshrine “economic benefits”⁷ into the environmental consequences that an agency must consider. Agencies must take a balanced approach to costs and benefits and should not monetize a project’s economic benefits without also monetizing, when feasible, the project’s climate costs and other significant environmental effects.
- CEQ proposes to add language that would allow agencies to deflect responsibility for environmental effects of proposed actions, contrary to the intent of NEPA. Specifically, the Proposed Rule directs agencies to disregard effects if they have no “authority to prevent” them or those effects would have occurred anyway.⁸ Regarding greenhouse gas emissions, agencies should perform a substitution analysis to support any claims about whether and to what degree the effects of a particular project would be offset—but such a substitution analysis should then be applied equally to the consideration of any economic benefits. In the past, agencies have applied substitution analysis inconsistently to emissions and economic effects, assuming that most emissions from a project but none of their corresponding economic benefits would be offset. Agencies must use the same substitution analysis for the economic benefits, as well.
- NEPA does not direct agencies to limit their analysis to only domestic effects, and in fact contains language that counsels a global approach. The Proposed Rule, however, instructs agencies to only consider impacts to “present and future generations of Americans.”⁹ Agencies should continue to use a global lens for their analyses of climate impacts, including through incorporation of the social cost of carbon.

⁴ Proposed Rule, 85 Fed. Reg. 1696.

⁵ *Id.* at 1708.

⁶ *Id.*

⁷ *Id.* at 1720.

⁸ *Id.* at 1708.

⁹ *Id.*

- Finally, CEQ should not finalize its draft greenhouse gas guidance or incorporate it into regulatory revisions. That guidance is flawed and may cause agencies to violate NEPA.

In short, the Proposed Rule has the potential to encourage agencies to ignore or under-analyze significant climate effects of their actions, in violation of NEPA. Not only would the failure to analyze climate effects influence agencies decisions in ways that increase climate costs, but it would deprive the public and Congress of important and valuable information about climate effects. CEQ never acknowledges the Proposed Rule's costs from the lost value of information, let alone the climate costs of resulting decisions made in the absence of adequate analysis.

I. The Proposed Rule Would Cause Agencies to Violate NEPA by Neglecting to Take a “Hard Look” at a Project’s Climate-Related Impacts

NEPA requires “hard look” consideration of the potentially significant effects of proposed federal government actions. Accordingly, insofar as the Proposed Rule could allow agencies not to take a “hard look” at a project’s climate-related impacts—including by allowing agencies to merely quantify greenhouse gas emissions without disclosing the potential significance of the harms those emissions will cause, or to disregard greenhouse gas emissions altogether—the Proposed Rule could therefore cause agencies to violate NEPA. The social cost of greenhouse gases is a readily available tool to analyze the economic and environmental effects of greenhouse gas emissions and can be used by agencies to assess the significance of a project’s climate impacts.

The U.S. Supreme Court has called the disclosure of impacts the “key requirement of NEPA,” and held that agencies must “consider and disclose the *actual environmental effects*” of a proposed project in a way that “brings those effects to bear on [the agency’s] decisions.”¹⁰ Courts have repeatedly concluded that an environmental impact statement must disclose potentially significant climate effects.¹¹ NEPA requires “a reasonably thorough discussion of the significant aspects of the probable environmental consequences,” to “foster[] both informed decision-making and informed public participation.”¹² In particular, “[t]he impact of greenhouse gas emissions on climate change is precisely the kind of cumulative impacts analysis that NEPA requires,” and it is arbitrary to fail to “provide the necessary contextual information about the cumulative and incremental environmental impacts.”¹³

By monetizing climate damages using the social cost of greenhouse gas metrics, agencies are able to satisfy NEPA’s legal obligations and statutory goals to assess the incremental and actual effects bearing on the public interest. The social cost of greenhouse gases methodology calculates how the emission of an additional unit of greenhouse gases affects atmospheric greenhouse concentrations, how that change in atmospheric concentrations changes temperature, and how that change in temperature incrementally contributes to the above list of economic damages, including property damages, energy demand effects, lost agricultural productivity, human mortality and morbidity, lost

¹⁰ *Baltimore Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 96 (1983) (emphasis added).

¹¹ As the Ninth Circuit has held: “[T]he fact that climate change is largely a global phenomenon that includes actions that are outside of [the agency’s] control . . . does not release the agency from the duty of assessing the effects of its actions on global warming within the context of other actions that also affect global warming.” *Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1217 (9th Cir. 2008); see also *Border Power Plant Working Grp. v. U.S. Dep’t of Energy*, 260 F. Supp. 2d 997, 1028–29 (S.D. Cal. 2003) (failure to disclose project’s indirect carbon dioxide emissions violates NEPA).

¹² *Ctr. for Biological Diversity*, 538 F.3d at 1194 (citations omitted).

¹³ *Id.* at 1217.

ecosystem services and non-market amenities, and so forth.¹⁴ The social cost of greenhouse gases tool therefore captures the factors that actually affect public welfare and assesses the degree of impact to each factor, in ways that just estimating the volume of emissions cannot.

While CEQ should promote the proper accounting of climate damages including through the use the social cost of greenhouse gases protocol, the Proposed Rule weakens existing regulations and undermines NEPA's requirement to provide a balanced and comprehensive analysis of environmental effects. Specific problematic elements of the Proposed Rule as they relate to the assessment of potentially significant climate effects are discussed in the subsequent sections.

II. The Proposed Rule's Limitations on the Impacts that Qualify as "Significant" Violate NEPA and Will Result in Inadequate Consideration of Significant Climate Impacts

Monetization Provides the Required Informational Context that Volume Estimates Alone Lack

The largely unexplained change to amend 40 C.F.R. § 1508.27 to require agencies to assess the "degree" of an impact rather than its "intensity,"¹⁵ should not be read to allow agencies to assess significance by ignoring absolute impacts of greenhouse gas emissions and focusing instead on relative comparisons that fail to reveal the actual significance of an impact.

In recent years, some agencies have habitually presented substantial climate-related damages as a seemingly small portion of a far greater total. In a recent environmental impact statement, for instance, the Bureau of Land Management presented nearly 77 million metric tons of greenhouse gas emissions in one year as just 0.15% of the 2017 U.S. greenhouse gas inventory.¹⁶ This is very misleading. Indeed, in a country of over 300 million people and over 6.5 billion tons of annual greenhouse gas emissions, it is far too easy to make highly significant effects appear relatively trivial.¹⁷ For example, presenting all weather-related deaths as less than 0.1% of total U.S. deaths makes the risk of death by weather event sound trivial, but in fact that figure represents over 2,000 premature deaths per year¹⁸—hardly an insignificant figure.¹⁹ As the U.S. Court of Appeals for the

¹⁴ Interagency Working Group, Technical Support for Document: Social Cost of Carbon for Regulatory Impact Analysis 5 (2010).

¹⁵ Proposed Rule, 85 Fed. Reg. at 1695. CEQ does not otherwise explain the purpose of the proposed change. CEQ says "degree" will "provide greater clarity as to what agencies should consider" as compared to the word "intensity," but does not explain what is unclear about "intensity" or how substituting "degree" will provide clarity. One of the numerous definitions of "degree" is "the *relative* intensity, extent, measure, or amount of a quality, attribute, or action." Degree, Oxford English Dictionary (emphasis added).

¹⁶ U.S. Department of the Interior, Bureau of Land Management, National Petroleum Reserve in Alaska: Integrated Activity Plan and Environmental Impact Statement 3-1 to 3-6 (2019).

¹⁷ California CEQA guidance, Final Adopted Text for Revisions to the CEQA Guidelines § 15064.4, *available at* http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf. ("A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions."); *see also* 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 10-11 (Aug. 1, 2016) (withdrawn Apr. 5, 2017) ("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.").

¹⁸ Compare Nat'l Ctr. for Health Stat., Ctrs. for Disease Control & Prevention, *Death Attributed to Heat, Cold, and Other Weather Events in the United States, 2006-2010* at 1 (2014) (reporting about 2000 weather-related deaths per year) with Nat'l Ctr. for Health Stat., *Deaths and Mortality*, <https://www.cdc.gov/nchs/fastats/deaths.htm> (reporting about 2.7 million U.S. deaths per year total).

¹⁹ The public willingness to pay to avoid mortality is typically estimated at around \$9.6 million (in 2016\$). *See, e.g.*, 83 Fed. Reg. 12,086, 12,098 (Mar. 19, 2018) (U.S. Coast Guard rule using the Department of Transportation's value of

Fifth Circuit recently observed, even a seemingly “very small portion” of a “gargantuan source of [harmful] pollution” may nevertheless “constitute[] a gargantuan source of [harmful] pollution on its own terms.”²⁰ In other words, percentages can be misleading and can be manipulated by the choice of the denominator. What matters is the numerator’s actual contribution to total harm.

As described by Professor Cass Sunstein—drawing from the work of recent Nobel laureate economist Richard Thaler—a well-documented mental heuristic called “probability neglect” causes people to irrationally reduce such small probability risks entirely down to zero.²¹ People have significant “difficulty understanding a host of numerical concepts, especially risks and probabilities.”²² By presenting large quantities of emissions as a tiny percentage of a much larger total, this practice causes stakeholders to misunderstand the true significance of a project’s carbon emissions and treat them as meaningless. By contrast, through monetization it becomes clear that these emissions have a significant detrimental climate impact. The 77 million metric tons described above, for instance, would cause nearly \$4.4 billion in climate-related damages.²³

In short, monetizing climate damages provides the informational context required by NEPA, whereas a simple tally of emissions volume and a qualitative, generic description of climate change are misleading and fail to give the public and decisionmakers the required information about the magnitude of discrete climate effects.²⁴ Insofar as the Proposed Rule sanctions this presentation—including through its direction that agencies assess the “degree” of impacts when considering a project’s significance—it violates NEPA.

The Proposed Rule violates NEPA’s requirement that agencies consider effects on future generations and the international community

The proposed revisions would provide that agencies need no longer consider effects significant if they are “remote in time” or “geographically remote.”²⁵ But these provisions—both of which could be read to counsel against the full consideration of climate impacts²⁶—are unlawful. The former contradicts NEPA language requiring agencies to consider impacts on “future generations,” whereas the latter contradicts elements of NEPA including the provision on international and national coordination efforts.

NEPA requires agencies to weigh the “relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity,” as well as “any

statistical life in a recent analysis of safety regulations). Losing 2,000 lives prematurely to weather-related events is equivalent to a loss of public welfare worth over \$19 billion per year.

²⁰ *Southwestern Elec. Power Co. v. EPA*, 920 F.3d 999, 1032 (5th Cir. 2019).

²¹ Cass R. Sunstein, *Probability Neglect: Emotions, Worst Cases, and Law*, 112 Yale L. J. 61, 63, 72 (2002).

²² Valerie Reyna & Charles Brainerd, *Numeracy, Ratio Bias, and Denominator Neglect in Judgments of Risk and Probability*, 18 Learning & Individual Differences 89 (2007).

²³ The 2016 Interagency Working Group’s central estimate of the social cost of carbon for year 2025 emissions is \$46 in 2007\$; adjusted for inflation using the CPI Inflation Calculator, that equals approximately \$57 in 2019\$. 77 million * \$57 = \$4.39 billion.

²⁴ See 42 U.S.C. § 4332(2)(B) (requiring agencies to “identify and develop methods and procedures . . . which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking along with economic and technical considerations”).

²⁵ Proposed Rule, 85 Fed. Reg. at 1708.

²⁶ While many climate effects will occur in the near term and have significant local impacts, other climate effects that could be characterized as somewhat less immediate may still be extremely significant. Note that the social cost of greenhouse gas methodology incorporates a discount rate to assess the present-day significance of future effects..

irreversible and irretrievable commitments of resources.”²⁷ That requirement is prefaced with a congressional declaration of policy that expressly references the needs of future generations:

The Congress, recognizing the profound impact of man’s activity on the interrelations of all components of the natural environment . . . declares that it is the continuing policy of the Federal Government . . . to use all practicable means and measures . . . to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and **future generations** of Americans.²⁸

When the Congressional Conference Committee adopted that language, it reported that the first “broad national goal” under the statute is to “fulfill the responsibilities of each generation as trustee of the environment for future generations,” and recognized “that each generation has a responsibility to improve, enhance, and maintain the quality of the environment *to the greatest extent possible for the continued benefit of future generations*.”²⁹ The Proposed Rule’s direction that agencies need not consider potentially significant impacts that are “remote in time” is simply incompatible with NEPA’s clear concern for future generations.

Additionally, regarding geographically remote impacts, NEPA contains a provision on “International and National Coordination of Efforts” that broadly requires that “all agencies of the Federal Government *shall* . . . recognize the worldwide and long-range character of environmental problems.”³⁰ Furthermore, NEPA requires agencies to, “where consistent with the foreign policy of the United States, lend appropriate support to initiatives, resolutions, and programs designed to maximize international cooperation in anticipating and preventing a decline in the quality of mankind’s world environment.”³¹ By using the global social cost of greenhouse gases to spur reciprocal foreign actions, federal agencies can “lend appropriate support” to the NEPA’s goal of “maximize[ing] international cooperation” to protect “mankind’s world environment.” In contrast, the Proposed Rule’s instruction that agencies not consider impacts that are “geographically remote” would lead agencies to violate these critical NEPA provisions. It is also important to recognize that the United States is engaged in a repeated strategic dynamic with several significant players—including the United Kingdom, Germany, Sweden, and others—that have already adopted a global framework for valuing the social cost of greenhouse gases.³² For example, Canada and Mexico have explicitly borrowed the Interagency Working Group’s global social cost of carbon metric to set their own fuel efficiency standards.³³ In order to promote “international cooperation” consistent with

²⁷ 42 U.S.C. § 4332(2)(C).

²⁸ 42 U.S.C. § 4331 (emphasis added).

²⁹ See 115 Cong. Rec. 40419 (1969) (emphasis added); see also S. Rep. No. 91-296 (1969) (same).

³⁰ 42 U.S.C. § 4332(2)(f) (emphasis added).

³¹ 42 U.S.C. § 4332(2)(f); see also *Environmental Defense Fund v. Massey*, 986 F.2d 528, 535 (D.C. Cir. 1993) (confirming that Subsection F is mandatory); *Natural Resources Defense Council v. NRC*, 647 F.2d 1345, 1357 (D.C. Cir. 1981) (“This NEPA prescription, I find, looks toward cooperation, not unilateral action, in a manner consistent with our foreign policy.”); cf. COUNCIL ON ENVIRONMENTAL QUALITY, GUIDANCE ON NEPA ANALYSIS FOR TRANSBOUNDARY IMPACTS (1997), available at <http://www.gc.noaa.gov/documents/transguide.pdf>; Exec. Order No. 12,114, *Environmental Effects Abroad of Major Federal Actions*, 44 Fed. Reg. 1957 §§ 1-1, 2-1 (Jan. 4, 1979) (applying to “major Federal actions . . . having significant effects on the environment outside the geographical borders of the United States,” and enabling agency officials “to be informed of pertinent environmental considerations and to take such considerations into account . . . in making decisions regarding such actions”).

³² See Peter Howard & Jason Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 Columbia J. Env’tl. L. 203 (2017), at App’x B.

³³ See Heavy-Duty Vehicle and Engine Greenhouse Gas Emission Regulations, SOR/2013-24, 147 Can. Gazette pt. II, 450, 544 (Can.), available at <http://canadagazette.gc.ca/rp-pr/p2/2013/2013-03-13/html/sor-dors24-eng.html> (“The values used by Environment Canada are based on the extensive work of the U.S. Interagency Working Group on the Social

NEPA's mandates, therefore, the United States must also continue to consider international climate costs of important federal actions. The Proposed Rule violates this instruction insofar as it counsels agencies not to do so.

Contrary to CEQ's suggestion, climate impacts are often highly significant

CEQ explains that these proposed revisions are needed because focusing on temporal and geographically remote effects "can divert agencies from focusing their time and resources on the most significant effects."³⁴ But as the social cost of greenhouse gases protocol reveals, climate impacts are often extraordinarily significant, comprising tens or hundreds of billions of dollars in total cost.

The social cost of greenhouse gases uses the best available scientific and economic information to put a price on each incremental metric ton of greenhouse gas emissions. The Interagency Working Group's most recently updated central estimates of the social cost of greenhouse gases are about \$52 per ton of carbon dioxide, \$1,480 per ton of methane, and \$18,500 per ton of nitrous oxide (in 2019 dollars for year 2020 emissions).³⁵ Applying these social cost figures reveals that the climate impacts of proposed projects or regulations are often quite substantial. To provide one example, a 2012 environmental impact statement from the National Highway Traffic Safety Administration found that a rule to increase fuel-economy standards would reduce climate-related damages by approximately \$142 billion.³⁶ Likewise, the Department of State recently found that the Keystone Pipeline will produce over 178 million metric tons of annual greenhouse gas emissions over the lifecycle of the transported oil³⁷—which translates to more than \$10 billion in climate damages per year of emissions.³⁸

As these few examples reveal (along with countless others), climate impacts are often extremely significant, rebutting CEQ's suggestion that impacts that are more geographically or temporally remote are typically not the "most significant." The only way to understand the significance of these impacts is to give them the hard look that NEPA requires. The Proposed Rule's suggestion that agencies do otherwise would violate NEPA.

Cost of Carbon."); Jason Furman & Brian Deese, *The Economic Benefits of a 50 Percent Target for Clean Energy Generation by 2025*, White House Blog, June 29, 2016 (summarizing the North American Leader's Summit announcement that U.S., Canada, and Mexico would "align" their SCC estimates).

³⁴ Proposed Rule, 85 Fed. Reg. at 1708.

³⁵ U.S. Interagency Working Group on the Social Cost of Greenhouse Gases, Technical Support Document: Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis Under Executive Order 12866 (2016), *available at* https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf; *id.*, Addendum; *available at* https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf. Though these documents present cost values in 2007\$, we have converted those values to 2019\$ using the Bureau of Labor Statistics' consumer price index data, which is available at <https://data.bls.gov/timeseries/CUUR0000SA0>. As this data provides, 2007\$ can be converted to 2019\$ by multiplying by approximately 1.233.

³⁶ See Final Environmental Impact Statement, CAFE Standards, Passenger Cars and Light Trucks, Model Years 2017–2025, at 5-62 (2012).

³⁷ Dep't of State, Draft Supplemental Env'tl. Impact Statement for the Proposed Keystone XL Pipeline 4-83 (DOS-2019-0033) (2019).

³⁸ As noted above, the social cost of carbon is approximately \$57 in current value. See *supra* note 23. Multiplying 178 million metric tons by \$57 yields \$10.146 billion in climate-related damages from the pipeline's emissions from a single year. See Inst. for Pol'y Integrity, Comments on Failure to Consistently Apply Substitution Analysis in the Draft Supplemental Environmental Impact Statement for the Proposed Keystone XL Pipeline (Nov. 18, 2019), *available at* <https://www.regulations.gov/document?D=DOS-2019-0033-1044>.

III. The Proposed Rule Violates NEPA's Requirement that Agencies Take a Balanced Approach to Costs and Benefits

The Proposed Rule's emphasis on "economic benefits" cannot change the approach required by NEPA

The Proposed Rule would enshrine "economic benefits" into the list of consequences that agencies shall consider.³⁹ But NEPA requires agencies to take a balanced approach to costs and benefits; therefore, agencies should not monetize certain economic effects without also monetizing climate costs and other environmental effects that are equally subject to appropriate monetization.

Though current NEPA regulations do not always require a full and formal cost-benefit analysis,⁴⁰ agencies' approaches to assessing costs and benefits must be balanced and reasonable. Courts have warned agencies, for example, that an agency cannot selectively monetize benefits in support of its decision while refusing to monetize the costs of its action.⁴¹ In *High Country Conservation Advocates v. Forest Service*, for instance, the U.S. District Court of Colorado found that it was "arbitrary and capricious to quantify the *benefits* of the lease modifications and then explain that a similar analysis of the *costs* was impossible when such an analysis was in fact possible."⁴² The court explained that, to support a decision on coal mining activity, the agencies had "weighed several specific economic benefits—coal recovered, payroll, associated purchases of supplies and services, and royalties"—but arbitrarily failed to monetize climate costs using the readily available social cost of carbon protocol.⁴³ Similarly, in *Montana Environmental Information Center v. Office of Surface Mining (MEIC v. OSM)*, the U.S. District Court of Montana followed the lead set by *High Country* and likewise held an environmental assessment to be arbitrary and capricious because it quantified the benefits of action (such as employment payroll, tax revenue, and royalties) while failing to use the social cost of carbon to quantify the costs.⁴⁴

High Country and *MEIC v. OSM* were simply the latest applications of a broader line of case law in which courts find it arbitrary and capricious to apply inconsistent protocols for analyzing some effects compared to others, especially when the inconsistency obscures some of the most potentially significant effects.⁴⁵ For example, in *Center for Biological Diversity v. National Highway*

³⁹ Proposed Rule, 85 Fed. Reg. at 1720.

⁴⁰ 40 C.F.R. § 1502.23 ("[T]he weighing of the merits and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis."); *but see e.g., Sierra Club v. Sigler*, 695 F.2d 957, 978–79 (5th Cir. 1983) (holding that NEPA "mandates at least a broad, informal cost-benefit analysis," and so agencies must "fully and accurately" and "objectively" assess environmental, economic, and technical costs); *Chelsea Neighborhood Ass'ns v. U.S. Postal Serv.*, 516 F.2d 378, 387 (2d Cir. 1975) ("NEPA, in effect, requires a broadly defined cost-benefit analysis of major federal activities."); *Calvert Cliffs' Coordinating Comm. v. U.S. Atomic Energy Comm'n*, 449 F.2d 1109, 1113 (D.C. Cir. 1971) ("NEPA mandates a rather finely tuned and 'systematic' balancing analysis" of "environmental costs" against "economic and technical benefits"); *Nat'l Wildlife Fed. v. Marsh*, 568 F. Supp. 985, 1000 (D.D.C. 1983) ("The cost-benefit analysis of NEPA is concerned primarily with environmental costs. . . . A court may examine the cost-benefit analysis only as it bears upon the function of insuring that the agency has examined the environmental consequences of a proposed project.").

⁴¹ *High Country Conservation Advocates*, 52 F. Supp. 3d at 1191; *accord MEIC v. Office of Surface Mining*, 274 F. Supp. 3d at 1094–99 (holding it was arbitrary for the agency to quantify benefits in an EIS while failing to use the social cost of carbon to quantify costs, as well as arbitrary to imply there would be no effects from greenhouse gas emissions).

⁴² 52 F. Supp. 3d at 1191.

⁴³ *Id.*

⁴⁴ 274 F. Supp. 3d at 1094–99 (also holding that it was arbitrary to imply that there would be zero effects from greenhouse gas emissions).

⁴⁵ Other cases from different courts that have declined to rule against failures to use the social cost of carbon in NEPA analyses are all distinguishable by the scale of the action or by whether other effects were quantified and monetized in the analysis. *See League of Wilderness Defenders v. Connaughton*, No. 3:12-cv-02271-HZ (D. Ore., Dec. 9,

Traffic Safety Administration, the U.S. Court of Appeals for the Ninth Circuit ruled that, because the agency had monetized other uncertain costs and benefits of its vehicle fuel efficiency standard—like traffic congestion and noise costs—its “decision not to monetize the benefit of carbon emissions reduction was arbitrary and capricious.”⁴⁶ Specifically, it was arbitrary to “assign[] no value to *the most significant benefit* of more stringent [vehicle fuel efficiency] standards: reduction in carbon emissions.”⁴⁷ When an agency bases a decision on cost-benefit analysis, it is arbitrary to “put a thumb on the scale by undervaluing the benefits and overvaluing the costs.”⁴⁸ Similarly, the U.S. Court of Appeals for the District of Columbia Circuit has chastised agencies for “inconsistently and opportunistically fram[ing] the costs and benefits of the rule [and] fail[ing] adequately to quantify the certain costs or to explain why those costs could not be quantified”;⁴⁹ and the U.S. Court of Appeals for the Tenth Circuit has remanded an environmental impact statement because “unrealistic” assumptions “misleading[ly]” skewed comparison of the project’s positive and negative effects.⁵⁰

Agencies cannot justify an inconsistent approach to monetizing some potentially significant effects but not others. Indeed, NEPA’s “hard look” requirement means agencies must discuss in as much detail as possible all categories of effects, including economic, social, ecological, and public health effects.⁵¹ Whether a potentially significant effect is a cost, benefit, or transfer, if monetization is the best way to assess it and contextualize its precise impacts, then monetization is also the best way to comply with NEPA’s obligations.

The social cost of greenhouse gases presents a readily available tool to monetize the effects of greenhouse gas emissions based on peer-reviewed inputs and widely accepted assumptions. Agencies are every bit as capable of monetizing climate damages as they are of monetizing socioeconomic impacts. Agencies therefore would violate NEPA were they to routinely monetize economic effects in their analyses while refusing to monetize climate impacts, and the Proposed Rule is unlawful insofar as it would sanction this one-sided analysis.

Many “economic benefits” that agencies normally assess are causally and temporally remote

The Proposed Rule proposes to “clarify that effects should not be considered significant if they are remote in time, geographically remote, or the result of a lengthy causal chain.”⁵² However, many of the economic benefits that agencies currently assess—and may presumably continue to assess under the Proposed Rule’s explicit instruction that agencies take account of “economic benefits”—are causally or temporally remote. Should agencies continue to assess those impacts while failing to take a hard look at climate impacts on the theory that they are too remote, they will violate NEPA.

In a recent environmental impact statement, for instance, the Federal Energy Regulatory Commission quantified a pipeline’s alleged socioeconomic benefits for the affected region, including employment increases, population increases, increases in spending, and increased tax revenues, before concluding that “[i]ndirect economic benefits via tax revenue, employment, and spending

2014); *EarthReports v. FERC*, 828 F.3d 949 (D.C. Cir. 2016); *WildEarth Guardians v. Jewell*, 1:16-CV-00605-RJ, at 23-24, (D.N.M. Feb. 16, 2017).

⁴⁶ 538 F.3d at 1203.

⁴⁷ *Id.* at 1199.

⁴⁸ *Id.* at 1198.

⁴⁹ *Bus. Roundtable v. SCC*, 647 F.3d 1144, 1148–49 (D.C. Cir. 2011).

⁵⁰ *Johnston v. Davis*, 698 F.2d 1088, 1094–95 (10th Cir. 1983).

⁵¹ *Ctr. for Biological Diversity*, 538 F.3d at 1194.

⁵² Proposed Rule, 85 Fed. Reg. at 1708.

would be expected to be permanent and significant.”⁵³ These “indirect” effects are the “result of a lengthy causal chain.” To forecast tax-revenue increases, for instance, the agency assumes that the pipeline will bring employment to the region, that such employment will change population patterns and individual purchasing power, and that such decisions, in turn, will boost the region’s economic output and boost tax revenue. The agency also assessed economic impacts that are temporally remote by forecasting longterm employment and tax benefits.

As noted above, however, agencies must take a balanced approach to costs and benefits. Accordingly, should agencies continue to assess economic impacts that are causally and temporally remote—while disregarding climate impacts for that exact reason—they will violate NEPA.

IV. The Proposed Rule Violates NEPA Insofar as it Purports to Allow Agencies to Disregard Climate Impacts on the Theory that They Would Have Occurred Anyway

The Proposed Rule would change the definition of “effect” in order to “make clear that effects do not include effects that the agency has no authority to prevent or would happen even without the agency action, because they would not have a sufficiently close causal connection to the proposed action.”⁵⁴ To the extent that agencies rely on this text to evade analysis of climate impacts, they would violate NEPA’s “hard look” requirement. We therefore urge CEQ, at a minimum, to clarify that this provision does not nullify an agency’s obligation to take a hard look at an action’s climate effects.

If an agency claims that an effect would have occurred anyway, whether or not it approved a particular project, the agency must support this claim through the appropriate analysis. In the case of a fossil fuel production project, for example, agencies should use substitution analysis to determine what effects a project would have on supply and demand, and therefore on cumulative greenhouse gas emissions.⁵⁵ Agencies should not assume, without any analysis, that new supply of fossil fuel from their actions approving leasing and development on federal lands would perfectly substitute for other supply with no effects on total demand or resulting emissions. As the Tenth Circuit explained, the assumption of perfect substitution is “contrary to basic supply and demand principles” because it assumes that the price of the target resource will remain constant as supply contracts.⁵⁶ Moreover, the court explained, “modeling technology exists” to project an action’s displacement of other energy resources.⁵⁷ Accordingly, assuming perfect substitution—and failing to adequately analyze an action’s climate consequences as a result—violates NEPA. The Proposed Rule cannot overcome this precedent and is unlawful to the extent that it attempts to do so.

Even if this provision of the Proposed Rule is adopted, agencies must still assess and disclose climate impacts. And if agencies use substitution analysis to assess what percentage of the climate impacts “would happen even without the agency action,” they must do the same for any claims about a project’s economic benefits. Agencies cannot place their thumb on the scale by using substitution analysis to discount only a project’s environmental harms while attributing its full economic benefits to the action. For instance, if an agency finds that much of the of oil and gas

⁵³ FERC, Draft Environmental Impact Statement for the Alaska LNG Project 4-1147 (2019).

⁵⁴ Proposed Rule, 85 Fed. Reg. at 1708.

⁵⁵ This is true for agency analyses purporting to address both international and domestic markets. In many instances, analysis of only the domestic market for fossil fuels will present an incomplete picture of climate impacts and thus agencies should also provide a substitutional analysis for international markets where they have the tools to do so.

⁵⁶ *WildEarth Guardians v. BLM*, 870 F.3d 1222, 1236 (10th Cir. 2017).

⁵⁷ *Id.* at 1237.

production from a particular project would be replaced by substitute production under a “no action” scenario, then that same substitute production would also have produced tax revenues, employment income, and (because much fossil fuel development occurs on lands own by the federal or state governments) royalties under the no action alternative—meaning that the U.S. economy would still reap many of the project’s supposed economic benefits even without the proposed project. It would violate NEPA for agencies not to apply the same substitution analysis to a project’s economic benefits, effectively claiming that a proposal is responsible for all of its positive economic impacts but few of its environmental harms.

V. The Proposed Rule Violates NEPA’s Requirement that Agencies Consider Global Effects

A Global Perspective on Climate Impacts Is Required to Capture All Factors Bearing on U.S. Public Welfare

The Proposed Rule improperly gives agencies carte blanche to ignore the global effects of their actions. First, the Proposed Rule directs agencies not to consider potentially significant effects that are “geographically remote.”⁵⁸ Moreover, the term “affected environment” is limited in the Proposed Rule to the national, regional, and local scales.⁵⁹ However, taking such a narrow view in their analysis would mean that agencies are failed to fulfill their obligations under NEPA. As discussed above, NEPA contains multiple provisions that require agencies to take a global perspective.⁶⁰

Beyond the text of NEPA itself, there are other reasons that agencies must continue to take a global perspective in their analyses, particularly when it comes to climate change effects, in order to fulfill the goals of NEPA. Perhaps more than any other issue, the nature of the issue of climate change requires precisely such a “different emphasis” from the default domestic-only assumption. To avoid a global “tragedy of the commons” that could irreparably damage all countries, including the United States, every nation should ideally set policy according to a global perspective on climate effects, including by using a global social cost of greenhouse gases.⁶¹ Climate and clean air are global common resources, meaning they are freely available to all countries, but any one country’s use—i.e., pollution—imposes harms on the polluting country as well as the rest of the world. Because greenhouse gas pollution does not stay within geographic borders but rather mixes in the atmosphere and affects climate worldwide, each ton emitted by the United States not only creates domestic harms, but also imposes large externalities on the rest of the world. Conversely, each ton of greenhouse gases abated in another country benefits the United States along with the rest of the world.

If all countries set their greenhouse gas emission levels based on only domestic costs and benefits, ignoring the large global externalities, the aggregate result would be substantially sub-optimal

⁵⁸ Proposed Rule, 85 Fed. Reg. 1708.

⁵⁹ *Id.* at 1715. The proposal also defines “human environment” with reference to “Americans.” *Id.* at 1729. While the language “present and future generations of Americans” does appear in NEPA, NEPA also contains important language on “the worldwide and long-range character of environmental problems.” 42 U.S.C. § 4332(f) (emphasis added).

⁶⁰ The Proposed Rule’s limitation on considering geographically remote impacts could also potentially be read to limit consideration of domestic greenhouse gas effects that are experienced in distant parts of the United States. This too would violate NEPA.

⁶¹ See Garrett Hardin, *The Tragedy of the Commons*, 162 Science 1243 (1968) (“[E]ach pursuing [only its] own best interest . . . in a commons brings ruin to all.”).

climate protections and significantly increased risks of severe harms to all nations, including the United States. Thus, basic economic principles demonstrate that the United States stands to benefit greatly if all countries apply global social cost of greenhouse gas values in their regulatory decisions and project reviews. Indeed, the United States stands to gain hundreds of billions or even trillions of dollars in direct benefits from efficient foreign action on climate change.⁶² Including global considerations also furthers NEPA's goal of promoting international cooperation.

Of course, there already are and will continue to be significant, quantifiable, localized effects of climate change.⁶³ For example, a peer-reviewed EPA report, *Climate Change in the United States: Benefits of Global Action*, found that by the end of the century, the U.S. economy could face damages of \$110 billion annually in lost labor productivity alone due to extreme temperatures, plus \$11 billion annually in agricultural damages, \$180 billion in losses to key economic sectors due to water shortages, and \$5 trillion in damages U.S. coastal property.⁶⁴ But the existence of those examples of quantifiable estimates of localized damages does not mean that domestic damages are the only ones that exist. Accordingly, on top of the numerous reasons described herein for why the Proposed Rule's explicit focus on localized effects is unlawful, the language on the geospatial nature of effects could be read to allow agencies to ignore climate damages altogether using the logic that greenhouse gases themselves do not have local effects. And by ignoring climate effects, agencies would be violating NEPA.

For more details on the justification for a global value of the social cost of greenhouse gases in particular, please see Peter Howard & Jason Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 Columbia J. Envtl. L. 203 (2017). Another strong defense of the global valuation as consistent with best economic practices appears in a letter published in a recent issue of *The Review of Environmental Economics and Policy*, co-authored by the late Nobel laureate economist Kenneth Arrow.⁶⁵

VI. CEQ Should Not Adopt Its Proposed Greenhouse Gas Analysis Guidance

CEQ's 2019 draft guidance on analyzing greenhouse gas emissions is deeply flawed and may cause agencies to violate NEPA

The preamble to the Proposed Rule asks for feedback on CEQ's 2019 Draft Guidance on Consideration of Greenhouse Gas Emissions (the "Draft Guidance"). This guidance misstates both legal requirements under NEPA and the nature and usefulness of the social cost of greenhouse gas metrics. Agencies that follow the guidance as drafted could find themselves in violation of NEPA, and therefore CEQ should not adopt the Draft Guidance as part of the Proposed Rule.

⁶² Inst. for Pol'y Integrity, *Foreign Action, Domestic Windfall: The U.S. Economy Stands to Gain Trillions from Foreign Climate Action* (2015), <http://policyintegrity.org/files/publications/ForeignActionDomesticWindfall.pdf>

⁶³ See generally U.S. Global Change Research Program, *Climate Science Special Report: Fourth National Climate Assessment* (2017) (substantiating that significant climate impacts are already underway in the United States and are project to worsen); see also, e.g., Union of Concerned Scientists, *Underwater: Rising Seas, Chronic Floods, and the Implications for U.S. Coastal Real Estate* (2018).

⁶⁴ EPA, *Climate Change in the United States: Benefits of Global Action* (2015); see also EPA, *Multi-Model Framework for Quantitative Sectoral Impacts Analysis: A Technical Report for the Fourth National Climate Assessment* (2017) (quantifying physical and economic damages to multiple U.S. sectors, but acknowledging that only a "small portion of the impacts of climate change are estimated").

⁶⁵ Richard Revesz, Kenneth Arrow et al., *The Social Cost of Carbon: A Global Imperative*, 11 REEP 172 (2017).

The Draft Guidance implies that the social cost of greenhouse gas metrics are not appropriate to inform decisionmaking on individual actions or projects.⁶⁶ But that is incorrect: the social cost of greenhouse gas estimates are just as applicable and useful to NEPA analyses as they are in the regulatory context. And while the Draft Guidance claims that climate damages need not even be monetized when a NEPA analysis monetizes other costs and benefits,⁶⁷ that too is incorrect: several courts have held that inconsistent treatment of climate costs as compared to other costs and benefits is arbitrary and capricious.⁶⁸

The Draft Guidance suggests that, instead of using the social cost of greenhouse gases, mere quantification of emissions can be “a proxy for assessing potential climate effects.”⁶⁹ The Draft Guidance further suggests that agencies “may also” compare quantitative estimates to regional or sectoral emission totals, and that such comparisons, “together with a qualitative summary” will provide sufficient “context” and “sufficient information to make a reasoned choice.”⁷⁰ The Draft Guidance concludes that such analysis absolves agencies of any need for additional analysis of cumulative effects.⁷¹ Neither a quantitative tally, a regional comparison, nor a generic qualitative description of general climate change effects adequately assesses an action’s incremental contributions to actual environmental effects and the significance of those contributions. By comparison, the social cost of greenhouse gas estimates can assess how each additional ton of greenhouse gas emissions contributes incrementally to actual environmental effects like sea-level rise, property damage, and human health outcomes, and allows for a straightforward weighing of significance by translating such environmental effects into monetary terms.

The Draft Guidance also instructs that, if agencies use an estimate of the social cost of greenhouse gases, it must focus solely on impacts that accrue to U.S. citizens and residents.⁷² Again, this is incorrect: when agencies use the social cost of greenhouse gases, the best available estimates are the estimate of global damages as calculated by the Interagency Working Group on the Social Cost of Greenhouse Gases in 2016.

We hereby attach the joint comments on the Draft Guidance, submitted to CEQ on August 26, 2019, and incorporate by reference the arguments contained therein.

Sincerely,

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⁶⁶ 84 Fed. Reg. 30,097, 30,099 (June 26, 2019).

⁶⁷ *Id.*

⁶⁸ *See, e.g., High Country Conservation Advocates*, 52 F. Supp. 3d at 1191.

⁶⁹ 84 Fed. Reg. at 30,098.

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² 84 Fed. Reg. at 30,099 n.8.

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* No part of this document purports to present New York University School of Law's views, if any.

Attached: Misstatements of Legal Requirements and the Social Cost of Greenhouse Gases in the Draft Guidance on Consideration of Greenhouse Gas Emissions (August 26, 2019)