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## **Incorporating Climate Change in NEPA Reviews: Recommendations for Reform**

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**INCORPORATING CLIMATE CHANGE  
IN NEPA REVIEWS:  
Recommendations for Reform**

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By Michael Burger, Romany M. Webb, and  
Jessica Wentz

May 2022

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The Sabin Center for Climate Change Law develops legal techniques to fight climate change, trains law students and lawyers in their use, and provides the legal profession and the public with up-to-date resources on key topics in climate law and regulation. It works closely with the scientists at Columbia University's Earth Institute and with a wide range of governmental, non-governmental and academic organizations.

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## EXECUTIVE SUMMARY

The National Environmental Policy Act (“NEPA”) requires federal agencies to conduct an environmental review prior to moving ahead with any major federal project, plan, or program that could significantly affect the environment. As part of the environmental review, agencies must share information with, and solicit feedback from, the public. The goal is to improve federal decision-making by ensuring that agencies take a hard look at the environmental effects of their actions and fully inform the public about those effects.

In guidance issued in 2016, the Council on Environmental Quality (“CEQ”)—the federal body charged with implementing NEPA—identified climate change as a relevant factor to be considered in NEPA reviews. Multiple federal courts have confirmed that, under NEPA, federal agencies must consider both proposed actions’ contributions to climate change (i.e., via greenhouse gas (“GHG”) emissions) and the effects of climate change on proposed actions and their environmental outcomes. Despite this, however, federal agencies have been slow to integrate climate change considerations into their NEPA reviews.

In October 2021, CEQ announced that it would undertake a two-phase review of NEPA’s implementing regulations and consider amendments to, among other things, “ensure that the NEPA process . . . meets environmental, climate change, and environmental justice objectives.” Phase 1 of the review was completed in April 2022, when CEQ finalized limited amendments to undo certain regulatory changes made by the Trump administration. CEQ is now embarking on Phase 2, which will involve more extensive regulatory revisions, aimed at ensuring “the NEPA process provides for efficient and effective environmental reviews that are guided by science and are consistent with the statute’s text and purpose” and promote improved federal decision-making to advance “climate change mitigation and resilience” goals. This report recommends seven key regulatory reforms that would further those aims:

1. **Assessing the significance of environmental effects in a global context:** CEQ should amend the NEPA regulations to direct agencies to consider global context when assessing the significance of a proposed action’s GHG emissions, and to evaluate whether a proposed action is consistent with Federal, State, Tribal, and local GHG emission reduction targets and other climate change mitigation and adaptation policies.

2. **Establishing a significance threshold for GHG emissions:** CEQ should specify, in the NEPA regulations or guidance, a quantitative threshold above which GHG emissions are presumed to be significant while recognizing that GHG emissions below the threshold may be significant and should be assessed on a case-by-case basis.
3. **Accounting for climate change in environmental assessments:** CEQ should amend the NEPA regulations to provide additional instruction to federal agencies on how to account for climate change in environmental assessments, for example, by explicitly requiring consideration of GHG emissions and mitigation measures.
4. **Ensuring appropriate use of programmatic NEPA reviews:** CEQ should amend the NEPA regulations to clarify how agencies can use programmatic reviews and tiering to streamline NEPA implementation without compromising the integrity of the environmental review process.
5. **Accounting for environmental change in NEPA reviews:** CEQ should amend the NEPA regulations to explicitly require agencies to consider changing conditions and foreseeable trends when evaluating environmental impacts and mitigation measures.
6. **Ensuring use of the “best available science” in NEPA reviews:** CEQ should add a new provision to the NEPA regulations, requiring agencies use the “best available science” across all NEPA documents and analyses.
7. **Ensuring balanced consideration of costs and benefits in NEPA reviews:** CEQ should amend the NEPA regulations to specify that, when agencies include a cost-benefit analysis in NEPA documentation, they should present a balanced assessment which does not exclude potentially significant environmental costs if tools and data are available to quantify those costs.

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## 1. INTRODUCTION

Enacted by Congress in 1969 and signed into law by President Nixon in 1970, the National Environmental Policy Act (“NEPA”) makes “environmental protection a part of the mandate of every federal agency.”<sup>1</sup> In NEPA, Congress declared a national policy under which the federal government is expected “to use all practicable means and measures . . . to create and maintain conditions under which man and nature can co-exist in productive harmony.”<sup>2</sup> Consistent with that goal, NEPA requires federal agencies to conduct an environmental review prior to undertaking any “major federal action[] significantly affecting the quality of the human environment,” and consider the findings of that review when deciding whether and how to proceed.<sup>3</sup>

For each action covered by NEPA, federal agencies must prepare, with public input, an “environmental impact statement” (“EIS”) that describes:

(i) the environmental impact of the proposed action, (ii) any adverse environmental effects which cannot be avoided should the proposal be implemented, (iii) alternatives to the proposed action, (iv) the relationship between local short-term uses of man’s environment and the maintenance and enhancement of long-term productivity, and (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.<sup>4</sup>

This requirement serves two primary purposes—(1) ensuring that agencies take a “hard look” at the environmental consequences of proposed actions before deciding whether to move forward and (2) enhancing public disclosure of environmental information.<sup>5</sup>

The Council on Environmental Quality (“CEQ”)—the federal body charged with implementing NEPA—has identified climate change as “a fundamental environmental issue” and

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<sup>1</sup> *Calvert Cliffs’ Coordinating Comm., Inc. v. U.S. Atomic Energy Com.*, 449 F.2d 1109, 1112 (D.C. Cir., 1971).

<sup>2</sup> 42 U.S.C. § 4331(a).

<sup>3</sup> *Id.* § 4332(2)(C).

<sup>4</sup> *Id.*

<sup>5</sup> *New York Natural Res. Def. Council, Inc. v. Kleppe*, 429 U.S. 1308, 1311 (1976); *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 333 (1989); *Marsh v. Oregon Nat. Res. Council*, 490 U.S. 360, 385 (1989). *See also* CONGRESSIONAL RESEARCH SERVICE, *THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA): BACKGROUND AND IMPLEMENTATION* (2011), <https://crsreports.congress.gov/product/pdf/RL/RL33152/10>.

concluded that “its effects fall squarely within NEPA’s purview.”<sup>6</sup> In guidance issued in 2016 (“Climate Guidance”), CEQ identified two key climate change considerations requiring analysis under NEPA: (1) the “potential effects of a proposed action on climate change” (i.e., via greenhouse gas (“GHG”) emissions); and (2) the “effects of climate change on a proposed action and its environmental impacts.”<sup>7</sup> The courts have repeatedly confirmed that federal agencies are required to consider both factors in their NEPA reviews.<sup>8</sup>

At the direction of President Trump, CEQ withdrew the Climate Guidance in 2017<sup>9</sup> and two years later issued new draft guidance, focused specifically on the treatment of GHG emissions in NEPA reviews.<sup>10</sup> Also under President Trump, in 2020, CEQ amended the NEPA implementing regulations purportedly to “facilitate more efficient, effective, and timely NEPA reviews by Federal agencies.”<sup>11</sup> The Sabin Center, along with many other groups, opposed the 2020 amendments on the basis that the revised regulations “may be used to limit or even eliminate analysis of climate change-related considerations in NEPA reviews.”<sup>12</sup>

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<sup>6</sup> Memorandum from Christina Goldfuss, Council on Environmental Quality, for Heads of Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews (Aug. 1, 2016), <https://perma.cc/4646-8N9A> [hereinafter “2016 Climate Guidance”].

<sup>7</sup> *Id.* at 4.

<sup>8</sup> For a discussion of relevant case law, see Michael Burger & Jessica Wentz, *Downstream and Upstream Greenhouse Gas Emissions: The Proper Scope of NEPA Reviews*, 41 HARV. ENV’T L. REV. 109 (2017); Michael Burger & Jessica Wentz, *Evaluating the Effects of Fossil Fuel Supply Projects on Greenhouse Gas Emissions and Climate Change Under NEPA*, 44 WM. & MARY ENV’T L. & POL’Y REV. 423 (2020), ROMANY M. WEBB ET AL., *EVALUATING CLIMATE RISK IN NEPA REVIEWS: CURRENT PRACTICES AND RECOMMENDATIONS FOR REFORM* (2022), <https://perma.cc/8QC4-6CTW>.

<sup>9</sup> Withdrawal of 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, 82 Fed. Reg. 16,576 (Apr. 5, 2017).

<sup>10</sup> Draft National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions, 84 Fed. Reg. 30,097 (June 26, 2019).

<sup>11</sup> Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 43,304, 43,306 (July 16, 2020) [hereinafter “2020 Amendments”].

<sup>12</sup> Sabin Center for Climate Change Law and Environmental Defense Fund, Comment Letter on Proposed Amendments to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act (Mar. 10, 2020), <https://perma.cc/17Z3-R29Y>.

When President Biden took office, CEQ withdrew the 2019 draft guidance and commenced a review of the 2016 guidance, as well as the NEPA implementing regulations.<sup>13</sup> CEQ indicated that it would conduct its regulatory review in two phases. Phase 1 was completed in April 2022, when CEQ finalized limited amendments to the NEPA implementing regulations designed to undo certain changes made during the Trump administration and thereby “help ensure the proper scope of analysis that NEPA requires, including analysis of effects on climate change.”<sup>14</sup> CEQ indicated that, in phase 2 of its review, it would consider “more comprehensive” regulatory changes to “advance environmental, climate change mitigation and resilience, and environmental justice objectives.”<sup>15</sup>

Changes to the NEPA implementing regulations are needed to ensure federal agencies appropriately integrate climate change considerations into their environmental reviews. Over the last decade, the Sabin Center has conducted multiple surveys of federal EISs, each of which has found major gaps and shortcomings in agencies’ climate change analyses.<sup>16</sup> Most recently, a survey of all final EISs issued in connection with onshore energy projects from 2016 through 2020 found that less than half of the EISs considered whether and how climate change would alter the environmental outcomes of the proposed action, and less than ten percent compared climate change impacts across alternatives.<sup>17</sup>

This paper identifies seven key regulatory reforms that, if adopted, would help to ensure federal agencies fully and effectively evaluate climate change in their NEPA reviews. As explained below, the reforms are consistent with prior CEQ guidance and court decisions, and would further NEPA’s dual aims of informed decision-making and public disclosure.

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<sup>13</sup> National Environmental Policy Act Guidance on Consideration of Greenhouse Gas Emissions, 86 Fed. Reg. 10,252 (Feb. 19, 2021). *See also* National Environmental Policy Act Implementing Regulations Revisions, 86 Fed. Reg. 55,757 (Oct. 7, 2021).

<sup>14</sup> National Environmental Policy Act Implementing Regulations Revisions, 87 Fed. Reg. 23,453, 23,463 (Apr. 20, 2022) [hereinafter “2022 Regulatory Revisions”].

<sup>15</sup> *Id.* at 23,456.

<sup>16</sup> *See generally* PATRICK WOOLSLEY, CONSIDERATION OF CLIMATE CHANGE IN FEDERAL EISs, 2009 – 2011 (2012), <https://perma.cc/8RPO-Y24V>; JESSICA WENTZ ET AL., SURVEY OF CLIMATE CHANGE CONSIDERATIONS IN FEDERAL ENVIRONMENTAL IMPACT STATEMENTS, 2012 – 2014 (2016), <https://perma.cc/C7HE-MJE9>; SALONI JAIN ET AL., HOW DID FEDERAL ENVIRONMENTAL IMPACT STATEMENTS ADDRESS CLIMATE CHANGE IN 2016? (2017), <https://perma.cc/M45R-498G>; MADELINE SIEGEL & ALEXANDER LOZNAK, SURVEY OF GREENHOUSE GAS CONSIDERATIONS IN FEDERAL ENVIRONMENTAL IMPACT STATEMENTS AND ENVIRONMENTAL ASSESSMENTS FOR FOSSIL FUEL-RELATED PROJECTS (2019), <https://perma.cc/3DBE-GXBW>; Webb et al., *supra* note 8.

<sup>17</sup> Webb et al., *supra* note 8, at 46-48.

## 2. ASSESSING THE SIGNIFICANCE OF ENVIRONMENTAL IMPACTS IN A GLOBAL CONTEXT

The NEPA implementing regulations identify various factors that federal agencies must consider in determining whether an action has significant environmental effects and thus requires preparation of an EIS. Under the original, 1978 regulations, agencies were required to consider “both context and intensity.”<sup>18</sup> The courts subsequently held that “context” refers to “the scope of the agency’s action, including the interests affected,” while “intensity refers to the severity of impact.”<sup>19</sup>

When CEQ amended the NEPA implementing regulations in 2020, it removed the references to “context” and “intensity.” The amended regulations provide that, “[i]n considering whether the effects of [a] proposed action are significant, agencies shall analyze the potentially affected environment and degree of the effects of the proposed action.”<sup>20</sup> CEQ’s explanation for the regulatory change suggests that it was intended to clarify, rather than alter, how agencies assess significance.<sup>21</sup>

Both the 1978 and 2020 regulations state that “significance varies with the setting of the proposed action. For instance, in the case of a site-specific action, significance would usually depend upon the effects in the” local area.<sup>22</sup> Multiple federal courts have, however, held that agencies must consider effects occurring outside the local area in some circumstances. Most notably, the courts have required agencies to assess the significance of environmental effects in a global context where the action contributes to a global problem, such as climate change.

In *California v. Bernhard*, the U.S. District Court for the Northern District of California held that “the appropriate context for a nationwide rulemaking that contributes to a global problem is the world as a whole.”<sup>23</sup> In that case, the court was considering the adequacy of NEPA analysis undertaken by the Department of the Interior (“DOI”) in connection with its decision to rescind the so-called “Methane Waste Prevention Rule,” which aimed to control natural gas venting, flaring,

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<sup>18</sup> 40 C.F.R. § 1508.27 (1978).

<sup>19</sup> See generally, *Def. of Animals v. U.S. Dep’t of the Interior*, 751 F.3d 1054, 1068 (9<sup>th</sup> Cir. 2014).

<sup>20</sup> 40 C.F.R. § 1501.3(b).

<sup>21</sup> See 2020 Amendments, *supra* note 11, at 43,322 (The changes are intended “to provide greater clarity as to what agencies should consider in assessing potentially significant effects”).

<sup>22</sup> 40 C.F.R. § 1508.27(a) (1978); 40 C.F.R. § 1501.3(b)(1).

<sup>23</sup> *Cal. v. Bernhard*, 472 F. Supp. 573, 627 (N.D. Cal. 2020).

and leaks during production on federal lands. Pursuant to NEPA, DOI undertook an environmental assessment (“EA”) and determined that rescission of the rule would not have significant environmental effects, and thus did not require preparation of an EIS. The court held that DOI had inappropriately limited its analysis to local and regional environmental effects and that it should have also considered global effects. According to the court, because DOI’s action would impact “global greenhouse gas emissions, . . . the appropriate context includes global, national, and regional interests.”<sup>24</sup>

While *California v. Bernhardt* concerned a nationwide rulemaking, the courts have taken the same approach to site-specific actions with global implications. For example, in *Barnes v. U.S. Department of Transportation* (“DOT”), the 9<sup>th</sup> Circuit Court of Appeals approved of DOT’s decision to assess the environmental impacts of a proposed airport expansion in a global context.<sup>25</sup> The court noted that the airport expansion would contribute to GHG emissions associated with climate change, which is a “global problem” and thus should be evaluated in a global context.<sup>26</sup> Similarly, in *Montana Environmental Information Center v. U.S. Office of Surface Mining*, a federal district Court in Montana held that DOI was required to consider environmental impacts in a global context when determining whether to prepare an EIS in connection with its approval of a plan of operations for a coal mine.<sup>27</sup> Prior to approving the plan, DOI undertook an EA in which it evaluated possible environmental effects “at the local and regional scale,” and determined that such effects were not significant.<sup>28</sup> The court faulted DOI for limiting its analysis to local and regional environmental effects, noting that the mine would result in GHG emissions, and thus have “foreseeable impacts beyond the region.”<sup>29</sup> More recently, in *350 Montana v. Haaland*, the Ninth Circuit Court of Appeals remanded an EA for a coal mining lease expansion, finding that DOI had failed to justify a finding of no significant impact (“FONSI”) in light of the fact that the expansion would result in the emission of 190 million tons of GHGs. The court characterized DOI’s conclusion that these GHG impacts were “minor” as “deeply troubling” and “insufficient” for NEPA purposes.<sup>30</sup>

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<sup>24</sup> *Id.* at 627-628.

<sup>25</sup> *Barnes v. U.S. Dep’t of Transp.*, 655 F.3d 1124 (9<sup>th</sup> Cir. 2011).

<sup>26</sup> *Id.* at 1139.

<sup>27</sup> *Mont. Env’tl. Info. Ctr. v. U.S. Office of Surface Mining*, 274 F.Supp. 3d 1074 (D. Mont. 2017).

<sup>28</sup> *Id.* at 1101.

<sup>29</sup> *Id.* at 1102.

<sup>30</sup> *350 Mont. v. Haaland*, No. 20-35411, 21 (9<sup>th</sup> Cir. Apr. 4, 2022).

CEQ should codify the above case law in the NEPA implementing regulations by amending 40 C.F.R. § 1501.3(b)(1) to expressly state that significance may need to be assessed in a global, national, regional, or local context. The section could be amended to specifically provide that, where an action contributes to climate change or another global environmental problem, the appropriate context for assessing significance is global.

It should be noted that requiring significance to be assessed in a global context could result in federal agencies comparing the GHG emissions associated with their actions to the global total. In the past, federal agencies have used such comparisons to downplay the effects of proposed actions, for example, by asserting that the GHG emissions associated with a particular action would account for a negligible share of total global emissions. CEQ has previously recognized that this is inappropriate because:

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 by 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 . . . Agencies should not limit themselves to calculating a proposed action’s emissions as a percentage of sector, nationwide, or global emissions.<sup>31</sup>

CEQ should require federal agencies to assess the significance of GHG emissions in light of climate change laws and policies. The NEPA implementing regulations currently provide that, when evaluating the “degree” of a proposed action’s environmental effects, agencies should consider “[e]ffects that would violate Federal, State, Tribal, or local law protecting the environment.”<sup>32</sup> Consistent with that directive, where a proposed action will take place in a state that has enacted a GHG emission reduction target or goal into law, the relevant federal agency should be required to consider whether the action is consistent with achievement of that target or goal.

CEQ could amend the NEPA implementing regulations at 40 C.F.R. § 1501.3(b)(2) to also require federal agencies to evaluate proposed actions against GHG emission reduction targets and other climate change mitigation and adaptation policies that are not codified in law. At a minimum, all actions should be evaluated against the U.S. Nationally Determined Contribution (“NDC”), as

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<sup>31</sup> 2016 Climate Guidance, *supra* note 6, at 11.

<sup>32</sup> 40 C.F.R. § 1501.3(b)(2)(iv).

submitted to the Secretariat of the United Nations Framework Convention on Climate Change under the 2015 Paris Climate Agreement.<sup>33</sup> Parties to the Paris Agreement, including the U.S., must submit NDCs that they “intend to achieve” and “pursue domestic mitigation measures” consistent with their NDCs.<sup>34</sup> Thus, the U.S. NDC is an authoritative statement of federal government policy with respect to climate change, and should be considered by federal agencies when evaluating the environmental implications of their actions.

### 3. ESTABLISHING A NUMERIC SIGNIFICANCE THRESHOLD FOR GREENHOUSE GAS EMISSIONS

CEQ should also adopt a quantitative significance threshold for GHG emissions to help federal agencies determine the appropriate level of NEPA review. We recognize that this action would be somewhat unusual, as CEQ has not adopted significance thresholds for other types of environmental impacts. However, there is some precedent for this action: federal agencies sometimes rely on quantitative metrics, such as air quality thresholds, to assess the significance of impacts,<sup>35</sup> and local agencies in California have been using significance thresholds to evaluate the significance of GHG emissions for several years.<sup>36</sup> A regulatory threshold that applies across different agencies and project types would also be justified in light of two considerations: (1) unlike many other impacts considered in NEPA reviews, GHG emissions have the same effect on global climate change regardless of local environmental conditions; and (2) many agencies have expressed uncertainty about how to assess the significance of GHG emissions due to the global nature of climate change.

We recognize that CEQ intentionally omitted a significant threshold for GHGs from its 2016 Climate Guidance.<sup>37</sup> In the absence of such a threshold, federal agencies often conclude that

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<sup>33</sup> Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, T.I.A.S. No. 16-1104.

<sup>34</sup> *Id.* at Art. 4(2).

<sup>35</sup> See, e.g., NPS, *Technical Guidance on Assessing Impacts to Air Quality in NEPA and Planning Documents* (January 2011).

<sup>36</sup> See, e.g., Bay Area Air Quality Management District, *CEQA Thresholds and Guidelines Update*, <https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines>

<sup>37</sup> 2016 Climate Guidance, *supra* note 6 at 11.

emissions are insignificant (in some cases still drawing comparisons to national or global GHG emissions) or they simply do not reach a conclusion on the issue of significance. This is true even in the context of fossil fuel projects that will generate millions of tons of GHG emissions and thus clearly exceed any reasonable threshold of significance.<sup>38</sup>

We are only aware of one fossil fuel-related proposal—i.e., the Keystone XL Pipeline Project—for which GHG emissions have been found to be significant. The supplemental EIS for the Keystone XL Pipeline Project included six estimates of lifecycle GHG emissions under two scenarios:

- Scenario 1 (assuming the pipeline transports 830,000 barrels per day of West Canadian Sedimentary Basin (“WCSB”) heavy crude oil):
  - a lower bound of 2.1 to 33.9 million metric tons of carbon dioxide (“CO<sub>2</sub>”)-equivalent per year if the WCSB heavy crude fully displaces other medium to heavy crude oils;
  - a mid-range of 37.3 to 120.5 million metric tons of CO<sub>2</sub>-equivalent per year if the WCSB heavy crude partially displaces other crude oils; and
  - an upper bound of 178.3 million metric tons of CO<sub>2</sub>-equivalent per year if the WCSB heavy crude does not displace other crude oils.<sup>39</sup>
- Scenario 2 (assuming the pipeline transports 730,000 barrels per day of WCSB heavy crude oil and 100,000 barrels per day of Bakken light crude oil):
  - a lower-bound of 1.7 to 30.3 million metric tons of CO<sub>2</sub>-equivalent per year if the WCSB heavy crude fully displaces other medium to heavy crude oils;
  - a mid-range of 36.3 to 116.9 million metric tons of CO<sub>2</sub>-equivalent per year if the WCSB heavy crude partially displaces other crude oils; and
  - an upper bound of 174.7 million metric tons of CO<sub>2</sub>-equivalent per year if the WCSB heavy crude does not displace other crude oils.<sup>40</sup>

The EIS concluded that partial displacement was the most likely outcome and noted that, with partial displacement, GHG emissions from the Keystone XL Pipeline Project would account for 0.6 to 1.8 percent of total U.S. emissions or 0.1 to 0.25 percent of global emissions.<sup>41</sup> Based on these figures, and after “[c]onsidering . . . the long-term nature of [climate] impacts, and widespread recognition of the need to urgently reduce global greenhouse gas emissions,” the EIS concluded that

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<sup>38</sup> See generally Burger & Wentz, *supra* note 8.

<sup>39</sup> Dep’t of State, Final Supplemental Environmental Impact Statement for the Keystone XL Project, Volume I S-18 & 4-81 (2019), <https://2017-2021.state.gov/releases-keystone-xl-pipeline/index.html>.

<sup>40</sup> *Id.*

<sup>41</sup> *Id.* 4-81 & 4-83.

GHG “emissions from the proposed Project would likely represent a potentially significant impact.”<sup>42</sup>

Courts are starting to weigh in on agency obligations with respect to significance determinations and GHG emissions. As noted above, the Ninth Circuit Court of Appeals remanded an EA for a coal mine expansion in *350 Montana v. Haaland* due to DOI’s failure to provide a convincing statement of reasons why the project’s impacts were insignificant.<sup>43</sup> The expansion was expected to result in the emission of 190 million tons of GHGs—roughly 0.44 percent of global annual GHGs emissions. The court noted that DOI had “failed to articulate any science-based criteria of significance in support of its [FONSI] but instead relied on the arbitrary and conclusory determination that the Mine Expansion project’s emissions would be relatively minor.”<sup>44</sup> Courts have also remanded EAs for failure to justify FONSI in light of indirect and cumulative emissions.<sup>45</sup> None of these court decisions specify a particular threshold above which GHG impacts should be deemed significant, but the *350 Montana* decision indicates that 190 million tons of CO<sub>2</sub>-equivalent likely exceeds the threshold.

Adoption of a numeric threshold by CEQ would be useful insofar as it would standardize agency practice and ensure that EISs are prepared and mitigation measures are considered for significant GHG impacts. To address concerns about both administrative burden and legal defensibility, CEQ could specify a high threshold at which GHG emissions will be presumed to be significant (e.g., 100,000 tons per year of CO<sub>2</sub>-equivalent), while recognizing that GHG emissions below this threshold *may* be significant and should be assessed on a case-by-case basis. Alternatively, CEQ could include a recommended significance threshold in its future guidance on climate change and NEPA reviews, rather than establishing a bright-line regulatory rule. The guidance could direct agencies to provide a rationale in the event that they do not adhere to CEQ’s recommended threshold. This would provide a framework for citizens and courts to assess the reasonableness of GHG significance determinations.

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<sup>42</sup> *Id.* at 4-76.

<sup>43</sup> *350 Mont. v. Haaland*, No. 20-35411 (9th Cir. Apr. 4, 2022).

<sup>44</sup> *Id.* at 3.

<sup>45</sup> *See, e.g., San Juan Citizens All. v. U.S. Bureau of Land Mgmt.*, 326 F. Supp. 3d 1227, 1244 (D.N.M. 2018); *WildEarth Guardians v. Zinke*, 368 F. Supp. 3d 41, 85 (D.D.C. 2019); *WildEarth Guardians v. Zinke*, No. 1:17-cv-00080, 2019 WL 2404860, at \*7 (D. Mont. Feb. 11, 2019).

We note that the above suggestion is consistent with a recent proposal from the Federal Energy Regulatory Commission (“FERC”) to apply a significance threshold of 100,000 tons of CO<sub>2</sub>-equivalent per year in NEPA reviews of natural gas pipeline projects.<sup>46</sup> FERC’s proposal noted that “[e]stablishing a threshold for NEPA purposes . . . provides Commission staff, industry, and other stakeholders clarity regarding whether a particular project will result in the preparation of” an EA or EIS and “that such clarity ultimately benefits both the regulated community and the public” by ensuring “transparent, predictable analysis” of projects.<sup>47</sup> In explaining its decision to set the threshold at 100,000 tons, FERC indicated that, because of the “dire effects” of climate change, “even relatively minor GHG emissions pose a significant threat.”<sup>48</sup> In FERC’s view, a 100,000 ton threshold “is appropriate because it captures . . . projects that may result in incremental GHG emissions that may have a significant effect upon the human environment.”<sup>49</sup>

#### 4. ACCOUNTING FOR CLIMATE CHANGE IN ENVIRONMENTAL ASSESSMENTS

The NEPA implementing regulations currently state that an EA should be conducted where a proposed federal action “is not likely to have significant [environmental] effects or when the significance of the effects is unknown” (unless a categorical exclusion applies or the agency proceeds directly to prepare an EIS).<sup>50</sup> The regulations provide federal agencies with little guidance on conducting EAs, stating only that EAs must “[b]riefly discuss the purpose and need for the proposed action, alternatives . . . and the environmental impacts of the proposed action and alternatives.”<sup>51</sup> CEQ’s 2016 Climate Guidance further directs agencies to include, in EAs, an “analysis of potential GHG emissions [associated with a proposed action] and the effects of climate change” on the action.<sup>52</sup>

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<sup>46</sup> Fed. Energy Regulatory Comm’n, Consideration of Greenhouse Gas Emissions in Natural Gas Infrastructure Project Reviews (Feb. 18, 2022), <https://perma.cc/LBZ6-BLWN>.

<sup>47</sup> *Id.* at 55-56.

<sup>48</sup> *Id.* at 62.

<sup>49</sup> *Id.* at 3.

<sup>50</sup> 40 C.F.R. § 1501.5(a).

<sup>51</sup> *Id.* § 1501.5(c)(2).

<sup>52</sup> 2016 Climate Guidance, *supra* note 6, at 3.

A 2019 Sabin Center survey of EAs issued in connection with fossil fuel projects found significant variation in the nature and extent of climate change analysis.<sup>53</sup> For example:

- While all of the surveyed EAs included a quantitative estimate of GHG emissions generated directly by the project under review, only some quantified indirect emissions (e.g., associated with upstream and downstream activities).<sup>54</sup>
- The surveyed EAs used different methodologies to calculate project-related GHG emissions. When estimating downstream emissions (i.e., from the end use of fossil fuels), most EAs did not account for the effect of proposed fossil fuel production on energy markets, prices, and consumption patterns.<sup>55</sup>
- Most of the surveyed EAs did not compare estimated GHG emissions from the proposed action and reasonable alternatives.<sup>56</sup> None of the EAs discussed mitigation measures or alternative actions to avoid or minimize GHG emissions.<sup>57</sup>

The above findings suggest that, despite the directive in CEQ guidance, EAs often do not include a thorough climate change analysis. Regulatory changes may be needed to ensure such analysis occurs in the future. CEQ should amend 40 C.F.R. § 1501.5(c) to clarify the requirements for evaluating climate change in EAs. To that end, § 1501.5(c) could be amended to expressly require agencies to account for climate change when discussing the purpose and need for a proposed action and its environmental effects. The section could also direct agencies to avoid defining purpose and need so narrowly as to exclude climate-beneficial alternatives (e.g., that reduce GHG emissions) and to consider at least one alternative that lessens climate change impacts.

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<sup>53</sup> Siegel & Loznak, *supra* note 16.

<sup>54</sup> *Id.* at 20-22.

<sup>55</sup> *Id.* at 22-24.

<sup>56</sup> *Id.* at 26.

<sup>57</sup> *Id.* at 26-27.

## 5. ENSURING APPROPRIATE USE OF PROGRAMMATIC NEPA REVIEWS

CEQ has previously endorsed the use of programmatic environments reviews and tiering to streamline the NEPA process.<sup>58</sup> As CEQ has recognized, programmatic reviews “should result in clearer and more transparent decision-making, as well as provide a better defined and more expeditious path toward decisions on proposed actions.”<sup>59</sup>

In guidance issued in 2014, CEQ recommended that agencies consider preparing programmatic EAs or EISs “when (1) initiating or revising a national or regional rulemaking, policy, plan, or program; (2) adopting a plan for managing a range of resources; or (3) making decisions on common elements or aspects of a series or suite of closely related projects.”<sup>60</sup> With respect to (3), the guidance noted that preparation of a programmatic EA or EIS may be appropriate where an agency is making decisions regarding “[s]everal similar actions or projects in a region or nationwide,” or a “suite of ongoing, proposed or reasonably foreseeable actions that share a common geography or timing, such as multiple activities within a defined boundary.”<sup>61</sup> The guidance specifically identified “long range energy or transportation infrastructure” (e.g., electricity transmission lines and natural gas pipelines) as well suited to programmatic review.<sup>62</sup>

In the past, programmatic EISs have been prepared in connection with the designation of preferred corridors for transmission and similar energy infrastructure on federal land, as well as the designation of federal land suitable for solar and wind generating facilities.<sup>63</sup> Subsequent project-specific reviews can tier to, or incorporate analysis from, the programmatic EIS. Where an individual project does not raise additional issues, beyond those addressed in the programmatic EIS, it may

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<sup>58</sup> Memorandum from Michael Boots, Council on Environmental Quality, for Heads of Federal Departments and Agencies on Effective Use of Programmatic NEPA Reviews (Dec. 18, 2014), [https://www.energy.gov/sites/default/files/2014/12/f19/effective\\_use\\_of\\_programmatic\\_nepa\\_reviews\\_18dec2014.pdf](https://www.energy.gov/sites/default/files/2014/12/f19/effective_use_of_programmatic_nepa_reviews_18dec2014.pdf) [hereinafter “2014 Programmatic Reviews Guidance”].

<sup>59</sup> *Id.* at 7.

<sup>60</sup> *Id.* at 15.

<sup>61</sup> *Id.* at 13-14.

<sup>62</sup> *Id.* at 23.

<sup>63</sup> See generally, West-wide Energy Corridor Information Center, <https://perma.cc/HJX9-3BUO> (last visited Apr. 27, 2022); Solar Energy Development Programmatic EIS Information Center, <https://perma.cc/C6WG-927Y> (last visited Apr. 27, 2022); Wind Energy Development Programmatic EIS Information Center, <https://perma.cc/B8A5-YXXA> (last visited Apr. 27, 2022).

require only an EA (rather than a more detailed and longer EIS). In this regard, CEQ has indicated that “[t]iering an EA . . . from a [programmatic EIS] is appropriate where there are no new significant effects or considerations, and the programmatic NEPA review addresses those measures that the tiered proposal can rely on to address and reduce the significance of the site- or project-specific impacts.”<sup>64</sup>

Current NEPA implementing regulations confirm that programmatic EISs “may be prepared for programmatic Federal actions, such as the adoption of new agency programs.”<sup>65</sup> The regulations further provide that, where an agency has prepared a programmatic EIS for a “program or policy” and then prepares a subsequent EA or EIS on “an action included within the entire program or policy,” that latter document may be tiered to the programmatic EIS.<sup>66</sup> Under the regulations, the tiered EA or EIS “needs only to summarize and incorporate by reference the issues discussed in the broader document,” and should “concentrate on the issues specific to the subsequent action.”<sup>67</sup>

Only programmatic EISs, and not EAs, are expressly authorized under the current NEPA implementing regulations. CEQ has indicated that it “interprets its regulations as allowing for the use of a programmatic approach in developing an EA as well as in an EIS.”<sup>68</sup> Nevertheless, to ensure agencies take full advantage of programmatic EAs, their use should be endorsed in the regulations.

The regulations should also make clear that programmatic EAs and EISs may be useful and appropriate in a range of circumstances. The current regulations note that programmatic reviews may be appropriate for “agency programs” but do not identify other circumstances in which they may be used. For example, the regulations do not expressly authorize the use of programmatic reviews to assess the environmental impacts of a suite of similar, repetitive, or connected individual actions. As noted above, CEQ’s 2014 guidance endorses the use of programmatic reviews for such actions, and the regulations should do the same. The regulations should also provide additional clarity on tiering, again, consistent with CEQ’s 2014 guidance.<sup>69</sup> To that end, CEQ could amend 40 C.F.R. § 1501.11 (“Tiering”) to expressly state that tiering may be appropriate where a proposed

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<sup>64</sup> 2014 Programmatic Reviews Guidance, *supra* note 58, at 29.

<sup>65</sup> 40 C.F.R. § 1502.4(b).

<sup>66</sup> *Id.* § 1501.11(b).

<sup>67</sup> *Id.*

<sup>68</sup> 2014 Programmatic Reviews Guidance, *supra* note 58, at 12.

<sup>69</sup> *Id.* at 29.

action occurs pursuant to an agency program, or is similar to another action, that is the subject of a previous programmatic EA or EIS. It may also be useful to clarify, in § 1501.11, that agencies may tier an EA from a programmatic EIS where the proposed action does not have new significant environmental effects.

## 6. ACCOUNTING FOR ENVIRONMENTAL CHANGE IN NEPA REVIEWS

CEQ's 2016 Climate Guidance directs federal agencies to consider "the ways in which a changing climate over the life of the proposed project may alter the overall environmental implications of such actions."<sup>70</sup> It clarified that the agency's description of "the reasonably foreseeable affected environment" should include "[t]he current and projected future state of the environment."<sup>71</sup> This guidance was based on agencies' existing legal obligations: it is necessary to consider the future conditions in which a project will be implemented in order to accurately characterize environmental impacts, compare impacts from a reasonable range of alternatives, and consider mitigation measures.<sup>72</sup>

The approach taken in the 2016 Climate Guidance is also consistent with case law. There are a number of decisions holding that an agency acted arbitrarily and capriciously by failing to consider future conditions in the affected environment when evaluating the environmental impacts of a proposed action, as well as one decision affirming that it is proper for an agency to consider future conditions.<sup>73</sup> There have also been several decisions recognizing that an analysis of how climate

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<sup>70</sup> 2016 Climate Guidance, *supra* note 6, at 9.

<sup>71</sup> *Id.* at 20. *See also id.* at 20-21 (the future state of the affected environment "should be described based on authoritative climate change reports," which document the impacts of climate change "both globally and at a localized level.").

<sup>72</sup> *See generally* Webb et al, *supra* note 8, at 22-26.

<sup>73</sup> *See, e.g.,* American Canoe Ass'n v. White, 277 F. Supp. 2d 1244 (N.D. Ala. 2003) (agency failed to consider future condition of project); California ex rel. Imperial County Air Pollution Control Dist. v. U.S. Dep't of the Interior, 767 F.3d 781 (9th Cir. 2014) (agency properly considered future conditions when establishing "no action" alternative); Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 34 ELR 20127 (9th Cir. 2004) (agency failed to consider future effects of other actions in cumulative effects analysis); Oregon Natural Res. Council Fund v. Brong, 492 F.3d 1120, 37 ELR 20187 (9th Cir. 2007) (agency failed to consider future effects of other actions in cumulative effects analysis).

change will affect baseline environmental conditions falls squarely within the scope of issues that need to be considered under NEPA.<sup>74</sup>

In 2020, CEQ amended the NEPA implementing regulations to specify that agencies should account for “reasonably foreseeable environmental trends and planned actions in the area” when describing the environment that will be affected by a project.<sup>75</sup> CEQ explained that the purpose of this language was to ensure that agencies consider “predictable environmental trends”, including those caused by climate change, “in the baseline analysis of the affected environment rather than as an effect of the action.”<sup>76</sup> However, CEQ did not include any new language clarifying that agencies must also account future trends, including the effects of climate change, in their discussion of environmental impacts, alternatives, and mitigation measures.

CEQ should consider amending the regulations to direct agencies to account for changing environmental conditions in their analysis of environmental impacts, alternatives, and mitigation measures, as well as their description of the affected environment. CEQ could amend 40 C.F.R. § 1502.16 (“Environmental consequences”) to require agencies to account for “foreseeable trends,” “future conditions,” “environmental change,” or “climate change” in their analysis of both environmental impacts and mitigation measures across alternatives. Alternatively, CEQ could amend 40 C.F.R. § 1502.15 (“Affected environment”) to specify that the agency’s description of “reasonably foreseeable environmental trends” should inform its analysis of environmental impacts and mitigation measures.

## **7. ENSURING USE OF THE “BEST AVAILABLE SCIENCE” IN NEPA REVIEWS**

CEQ should adopt a regulatory provision which requires federal agencies to use the “best available science” in EAs and EISs. Such a requirement would be legally defensible and would ensure that agencies do not disregard high-quality scientific evidence that is relevant to their NEPA analyses.

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<sup>74</sup> See, e.g., *AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969 (E.D. Cal. 2018); *National Wildlife Federation v. National Marine Fisheries Service*, 184 F. Supp. 3d 861 (D. Or. 2016).

<sup>75</sup> 40 C.F.R. § 1502.15.

<sup>76</sup> 2020 Amendments, *supra* note 11, at 43,331.

It would be reasonable to introduce a “best available science” mandate even though this is not explicitly required by the NEPA statute. Such a mandate would be consistent with the statutory purpose of informed decision-making and the requirement that agencies take a “hard look” at the environmental consequences of federal actions. There is also precedent for introducing this mandate through regulation in the absence of an explicit statutory requirement or authorization. The U.S. Forest Service (“USFS”) has adopted a “best available science” mandate for national forest planning even though this standard does not appear in the National Forest Management Act (“NFMA”). The relevant regulation reads:

The responsible official shall use the best available scientific information to inform the planning process required by this subpart for assessment; developing, amending, or revising a plan; and monitoring. In doing so, the responsible official shall determine what information is the most accurate, reliable, and relevant to the issues being considered. The responsible official shall document how the best available scientific information was used to inform the assessment, the plan or amendment decision, and the monitoring program as required in §§ 219.6(a)(3) and 219.14(a)(3). Such documentation must: Identify what information was determined to be the best available scientific information, explain the basis for that determination, and explain how the information was applied to the issues considered.<sup>77</sup>

This regulatory provision has been consistently enforced by the courts.<sup>78</sup> As discussed below, CEQ could use similar language in the NEPA implementing regulations to ensure that agencies are transparent about how they use the best available science in NEPA reviews.

Courts have established some parameters for interpreting “best available science” mandates in cases arising under the Endangered Species Act (“ESA”) and the NFMA. Courts have held that the purpose of the best available science standard is to “ensure that [the relevant action] not be implemented haphazardly, on the basis of speculation or surmise.”<sup>79</sup> The standard “prohibits [an agency] from disregarding available scientific evidence that is in some way better than the evidence

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<sup>77</sup> 36 C.F.R. § 219.3.

<sup>78</sup> See, e.g., *Utah Env't Cong. v. Troyer*, 479 F.3d 1269, 1282 (10th Cir. 2007); *Ecology Ctr., Inc. v. U.S. Forest Serv.*, 451 F.3d 1183, 1193 (10th Cir. 2006); *Forest Watch v. U.S. Forest Serv.*, 410 F.3d 115, 119 (2d Cir. 2005); *Utah Env't Cong. v. Richmond*, 483 F.3d 1127, 1138 (10th Cir. 2007).

<sup>79</sup> *Bennett v. Spear*, 520 U.S. 154, 176 (1997).

[it] relies on.”<sup>80</sup> It requires that agencies carefully examine available scientific data and analytical tools (e.g., models) and make a rational decision about the reliability and weight of scientific resources.<sup>81</sup> Agencies must also give greater weight to peer reviewed science, as compared with other data sources.<sup>82</sup>

The “best available science” standard does not require an agency to collect new data, conduct independent studies, or otherwise seek information that does not already exist.<sup>83</sup> And it does not preclude agencies from making decisions and projections on the basis of low-quality data if it is the only data available.<sup>84</sup> An agency can comply with the standard “so long as it does not ignore available studies, even if it disagrees with or discredits [those studies]” based on a rational assessment of all available evidence.<sup>85</sup> Ultimately, what constitutes the “best available science” is a scientific determination which warrants some judicial deference.<sup>86</sup>

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<sup>80</sup> *Kern Cty. Farm Bureau v. Allen*, 450 F.3d 1072, 1080–81 (9th Cir. 2006) (quoting *Southwest Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60 (D.C. Cir. 2000)). See also *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014).

<sup>81</sup> *NRDC v. Kempthorne*, 506 F. Supp. 2d 322, 360, 362 (E.D. Cal. 2007) (the agency must “carefully examine the available scientific data and models and rationally choose the most reliable [rather than falling back on ‘benefit of the doubt’].”) See also *Conner v. Burford*, 848 F.2d 1441, 1454 (9th Cir. 1988) (“FWS cannot ignore available biological information or fail to develop projections of oil and gas activities which may indicate potential conflicts between development and the preservation of protected species”).

<sup>82</sup> *Trout Unlimited v. Lohn*, 645 F. Supp. 2d 929, 957 (D. Or. 2007) (“It is contrary to the record and the best available science for NMFS to rely on Oregon’s viability conclusion in the face of peer review findings that the viability conclusion had insufficient scientific support.”). See also *Ecology Ctr., Inc. v. U.S. Forest Serv.*, 451 F.3d 1183, 1193 (10th Cir. 2006) (The Forest Service may satisfy the [best available science] requirements through the use of ‘independent peer review, a science advisory board, or other review methods to evaluate to consideration of science in the planning process.’”)

<sup>83</sup> See *Am. Wildlands v. Kempthorne*, 530 F.3d 991, 998–99 (D.C. Cir. 2008) (holding that an agency’s use of available data and test methods was reasonable even though better test methods existed because those test methods had not yet been used on the species in question); *San Luis & Delta-Mendota Water Auth. v. Locke*, 776 F.3d 971, 995 (9th Cir. 2014) (“The [best available science] standard does not, however, require an agency to conduct new tests or make decisions on data that does not yet exist.”); *N.M. Farm & Livestock Bureau v. U.S. Dep’t of Interior*, 952 F.3d 1216, 1226–27 (10th Cir. 2020) (“the agency need only base its determinations on the ‘best scientific data available,’ not the best scientific data possible”); *Ecology Ctr., Inc. v. U.S. Forest Serv.*, 451 F.3d 1183, 1194 n.4 (10th Cir. 2006) (“the Forest Service need not collect new data”); *Sw. Ctr. for Biological Diversity v. Babbitt*, 215 F.3d 58, 60 (D.C. Cir. 2000) (“[t]he ‘best available data’ requirement makes it clear that the Secretary has no obligation to conduct independent studies”).

<sup>84</sup> *Greenpeace Action v. Franklin*, 14 F.3d 1324, 1336 (9th Cir. 1992).

<sup>85</sup> *San Luis & Delta-Mendota Water Auth.*, 776 F.3d at 995.

<sup>86</sup> *Miccosukee Tribe of Indians of Fla. v. United States*, 566 F.3d 1257, 1265 (11th Cir. 2009) (citing *Marsh*, 490 U.S. at 377–78, 109 S.Ct. 1851).

CEQ could adopt a stand-alone regulatory provision in the NEPA implementing regulations, which expressly requires agencies to use the best available scientific information throughout their NEPA reviews and to document how that information informed their analysis.

## 8. ENSURING BALANCED CONSIDERATION OF COSTS AND BENEFITS IN NEPA REVIEWS

NEPA does not require agencies to conduct a cost-benefit analysis when evaluating the environmental effects of projects. However, when agencies decide to undertake a comparison of costs and benefits, they have an obligation to conduct a fair and balanced assessment. This principle was articulated by the Ninth Circuit Court of Appeals in *Center for Biological Diversity v. National Highway Traffic Safety Administration*. There, the court found that it was arbitrary and capricious for the National Highway Traffic Safety Administration (“NHTSA”) to ignore the social costs of GHG emissions in its review of fuel economy standards, as it had monetized the employment and sales impacts of more stringent standards on manufacturers: “[An agency] cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards.”<sup>87</sup> The court held that NHTSA must attempt to disclose the social costs of emissions even where there was uncertainty about those costs: “[W]hile the record shows there is a range of values, the value of carbon emissions reduction is certainly not zero.”<sup>88</sup>

The federal government has since developed metrics for evaluating the social costs of GHG emissions.<sup>89</sup> The Seventh Circuit has affirmed the legality of using these metrics in federal rulemakings and cost-benefit analysis,<sup>90</sup> and some courts have required their use in cases involving cost-benefit analyses for fossil fuel production.<sup>91</sup> For example, in *High Country Conservation Advocates*

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<sup>87</sup> *Ctr. for Biological Diversity v. NHTSA.*, 538 F.3d 1172, 1198 (9th Cir. 2008)

<sup>88</sup> *Id.* at 1200.

<sup>89</sup> The social cost of GHG protocol was first introduced under the Obama administration and subsequently re-adopted by the Biden administration. The current protocol includes cost estimates for CO<sub>2</sub>, nitrous oxide (N<sub>2</sub>O) and methane (CH<sub>4</sub>). See INTERAGENCY WORKING GROUP ON SOCIAL COST OF GREENHOUSE GASES, UNITED STATES GOVERNMENT, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE, INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13990 (2021), <https://perma.cc/VL3U-642Y>.

<sup>90</sup> *Zero Zone, Inc. v. United States Dep't of Energy*, 832 F.3d 654, 678 (7th Cir. 2016).

<sup>91</sup> See, e.g., *Montana Environmental Information Center*, 274 F.Supp.3d at 1098-99; *WildEarth Guardians v. Zinke*, No. CV 17-80-BLG-SPW-TJC, 2019 WL 2404860 (D. Mont. Feb. 11, 2019), report and recommendation

*v. USFS*, a Colorado district court held that USFS must monetize climate impacts from coal leasing where it had monetized economic benefits, and directed USFS to use the social cost of carbon protocol in its cost-benefit assessment.<sup>92</sup> However, there are also several cases where agencies successfully argued that disclosure of social costs was not required because the agency had not conducted a complete “cost-benefit analysis” but rather a more narrowly tailored “economic impact analysis” (or “regional economic analysis”)<sup>93</sup> or the social cost metrics would not provide a sufficiently accurate and precise cost estimate so as to be helpful to decisionmakers.<sup>94</sup> The distinction between a “cost benefit analysis” and a “economic impact analysis” is unclear, and thus legal questions remain as to the circumstances in which courts will require an agency to disclose the social costs of emissions.

It would be helpful for the NEPA implementing regulations to clarify that: (1) federal agencies should undertake a fair and balanced assessment whenever they are comparing the costs and benefits of a proposal, and (2) it is appropriate for agencies to use metrics such as the federal social cost of carbon and other GHGs in NEPA reviews.<sup>95</sup> CEQ should amend section 1502.22 (“Cost-benefit analysis”) to incorporate those considerations.

## 9. CONCLUSION

In April 2022, CEQ completed the first phase of its review of the NEPA implementing regulations, finalizing a limited set of amendments to undo changes made during the Trump administration.<sup>96</sup> In phase two of its review, CEQ will consider “more comprehensive” regulatory

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adopted sub nom. *WildEarth Guardians v. Bernhardt*, No. CV 17-80-BLG-SPW, 2021 WL 363955 (D. Mont. Feb. 3, 2021); *Montana Environmental Information Center v. Haaland*, No. 1:19-cv-00130 (D. Mont. 2022). See also *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1329 (D.C. Cir. 2021) (“To the extent that the Commission failed to respond to Petitioners’ argument that 40 C.F.R. § 1502.21(c) required it to use the social cost of carbon protocol or some other generally accepted methodology to assess of the impact of the projects’ greenhouse gas emissions, we agree with Petitioners that the Commission failed to adequately analyze the impact of the projects’ greenhouse gas emissions.”).

<sup>92</sup> *High Country Conservation Advocates v. USFS*, 52 F. Supp. 3d 1174, 1193 (D. Colo. 2014).

<sup>93</sup> Agencies will refer to quantification of such benefits as a “regional economic analysis” or an “economic impact analysis” to avoid the requirement to treat costs and benefits equally in their analysis. See, e.g., *Montana Environmental Information Center*, 274 F.Supp.3d at 1096, FN 9.

<sup>94</sup> See, e.g., *WildEarth Guardians v. Zinke*, 2019 WL 2404860, at \*12.

<sup>95</sup> The Department of Interior has already recognized that the social cost of GHG metrics are an “essential tool” for evaluating costs and benefits in NEPA reviews. See DOI Secretarial Order 3399 (Apr. 16, 2021).

<sup>96</sup> 2022 Regulatory Revisions, *supra* note 14.

changes, designed to “advance environmental, climate change mitigation and resilience, and environmental justice objectives.”<sup>97</sup> This paper identifies seven key regulatory reforms that, if adopted by CEQ, would help to ensure federal agencies fully and effectively integrate climate change considerations into their NEPA reviews. The proposed reforms are consistent with prior CEQ guidance and court decisions and would further NEPA’s dual aims of improving federal decision-making and enhancing public disclosure of information.

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<sup>97</sup> *Id.* at 23,456.