

CEQ Issues Guidance on Evaluating Greenhouse Gas and Climate Change Effects Under NEPA

The Council on Environmental Quality (CEQ) published [guidance](#) on January 9, 2023, regarding how to evaluate greenhouse gas (GHG) emissions and climate change under the National Environmental Policy Act (NEPA), which requires federal agencies to assess the environmental impacts of major federal actions that could significantly affect the quality of the human environment, including infrastructure projects that are undertaken, funded, or approved by federal agencies.[\[1\]](#)

This interim guidance updates the CEQ's 2016 guidance and, perhaps most significantly, states that agencies should quantify a project's reasonably foreseeable direct and indirect gross and net GHG emissions and monetize the social cost of those GHG emissions. The guidance also encourages agencies to avoid and mitigate GHG emissions to the greatest extent possible.

Background

Over the past decades, courts have developed a body of jurisprudence to require federal agencies to evaluate a proposed action's GHG emissions as part of the NEPA process and to consider how climate change may affect a project. In 2016, under the Obama administration, the CEQ issued final guidance to federal agencies regarding how they consider GHG emissions and climate change. Under the Trump administration, the CEQ rescinded the 2016 guidance and issued new [draft guidance](#) in 2019. In 2020, the CEQ adopted the first comprehensive [revision](#) of its NEPA-implementing regulations since these were adopted in 1978. The CEQ asserted that categorizing and determining the geographic and temporal scope of cumulative effects under the 1978 regulations "has been difficult and can divert agencies from focusing their time and resources on the most significant effects." The 2020 regulations revised the definition of "effects" and removed the definition of "cumulative impacts," which the CEQ stated "does not preclude consideration" of climate change impacts, but the "analysis of the impacts on climate change will depend on the specific circumstances of the proposed action."

The day President Biden took office, he issued an executive order that directed the CEQ to rescind the 2019 draft guidance and to review, revise, and update the 2016 guidance. Under the Biden administration, the CEQ has also undertaken a revision of the 2020 NEPA regulations in two phases. [The Phase 1 rule](#), which was finalized on April 20, 2022, added "cumulative effects" to the definition of "effects" (among other limited changes to the regulations). With respect to the potential impacts on NEPA review timelines, CEQ stated it is not aware of data supporting the claim that evaluation of direct, indirect, and cumulative effects necessarily leads to longer timelines, citing the CEQ's list of GHG accounting tools as an example of modern techniques leveraging science and technology to make environmental reviews comprehensive yet efficient. The CEQ has indicated that it will propose a more comprehensive revision of the regulations in Phase 2 of its rulemaking, expected later this year.

Highlights of CEQ's New Climate Change Guidance

Quantifying Reasonably Foreseeable GHG Emissions

The CEQ interim guidance states that agencies should quantify reasonably foreseeable direct and indirect gross and net GHG emissions increases or reductions, both for individual pollutants and aggregated in terms of carbon dioxide equivalence. NEPA reviews should present annual GHG emission increases or reductions, as well as net emissions over a project's lifetime, particularly for projects that have both increases and reductions. GHG emissions and reductions should be quantified for the proposed action and alternatives (including the no-action alternative, which serves as the baseline for considering effects). Agencies should, where relevant, identify the alternative with the lowest net GHG emissions or the greatest net climate benefits.

The guidance suggests that quantification will be possible in most circumstances. The CEQ states that GHG emissions quantification and assessment tools are widely available and in broad use, referring to its [website](#) for a list of some such tools. The guidance states that agencies should request or require project applicants to provide information needed to quantify GHG emissions. If GHG emissions quantification tools, methodologies, or data are not reasonably available (described by the CEQ as a "rare instance"), agencies should present a reasonable estimated range of quantitative emissions or, if even that is not possible, provide a qualitative analysis and explain why quantification is not possible.

On the controversial topic of indirect effects, the guidance states that upstream and downstream GHG emissions are often reasonably foreseeable. For projects that may result in changes to energy mix (such as fossil fuel or renewable energy), the CEQ encourages agencies to conduct a substitution analysis to provide information on how the proposed action and alternatives will affect the energy resource or energy mix, including GHG emissions.

The guidance expressly disapproves of NEPA reviews stating merely that a project's GHG emissions would represent only a small fraction of global or domestic emissions. This has been a common approach taken by agencies, and one on which courts have offered mixed opinions. *See, e.g., Center for Community Action and Environmental Justice v. Federal Aviation Administration*, 18 F.4th 592, 606–07 (9th Cir. 2021); *350 Montana v. Haaland*, 50 F.4th 1254, 1255–56 (9th Cir. 2022).

Invoking NEPA's concept of proportionality, the CEQ states that less detailed analysis may be appropriate for projects that would have net reductions of GHG emissions (such as certain renewable energy projects, like utility-scale solar and offshore wind) or only small GHG emissions. *See* 40 C.F.R. § 1502.2(b) ("Environmental impact statements shall discuss impacts in proportion to their significance.").

The guidance does not establish a significance threshold for when a project's GHG emissions necessitate preparation of a lengthier environmental impact statement rather than an environmental assessment.

Providing Context for GHG Emissions

The guidance states that in most circumstances, agencies should use the best available estimates of the social cost of GHGs to monetize the climate change effects of a project's GHG emissions. The social cost of GHGs is the estimated monetary cost of damages associated with an incremental increase in GHG emissions (such as temperature increase, sea-level rise, infrastructure damage, and human health effects). Estimates for the social cost of GHGs were published by an interagency working group under the Obama administration, withdrawn under the Trump administration, and issued again under the Biden administration.^[2]

The CEQ states that NEPA reviews should provide the social cost of a project's GHG emissions even if no other costs or benefits are monetized, because it can help decision-makers and the public understand the effects of a project's GHG emissions. This has been a frequently litigated topic, and courts and the CEQ have not previously required agencies to use the social cost of GHGs to provide context for climate change effects outside of a cost-benefit analysis. *See, e.g., 350 Montana v. Haaland*, 50 F.4th 1254, 1270–72 (9th Cir. 2022); *EarthReports, Inc.*

v. Federal Energy Regulatory Commission, 828 F.3d 949, 956 (D.C. Cir. 2016).

The guidance also states that agencies should explain how a proposed action and alternatives would help meet or detract from achieving climate action goals or commitments, including international agreements, federal governmentwide and agency goals and planning documents, and state, regional, and tribal goals. The guidance states that agencies should rely on scientific literature and modeling "to help explain the real-world effects—including effects that will be experienced locally in relation to the proposed action—associated with an increase in GHG emissions that contribute to climate change, such as sea-level rise, temperature changes, ocean acidity, and more frequent and severe wildfires and drought, and human health effects (including to underserved populations)." The guidance further suggests that agencies can provide comparisons of a project's GHG emissions to metrics that may be more familiar to the public, such as household emissions per year or gallons of gasoline burned.

Considering Climate Change in Alternatives and Mitigation

The guidance states that agencies should use information from the NEPA process to help inform decisions that align with climate change commitments and goals, such as evaluating reasonable alternatives that would have lower GHG emissions. The guidance states that agencies should consider mitigation measures to avoid or reduce GHG emissions and, given "the urgency of the climate crisis," agencies are encouraged to mitigate GHG emissions to the greatest extent possible. The guidance states that mitigation measures should meet appropriate performance standards to ensure they are additional, verifiable, durable, enforceable, and will be implemented.

Considering Effects of Climate Change on a Proposed Action

The guidance states that NEPA reviews should consider the projected future state of the environment and the effects of climate change on a proposed action based on the best available climate change reports, such as the National Climate Assessment. Agencies should consider how climate change can increase vulnerability to environmental effects and, in turn, exacerbate the environmental effects of a proposed action. The guidance recommends that agencies consider climate change risks during planning, siting, project design, and identification of reasonable alternatives. It states that where climate change risks are present, agencies should consider resilience and adaptation measures that could manage those effects, as well as whether those measures could have undesirable or unintended consequences. Further, the CEQ states that agencies should indicate whether a proposed action includes adaptation measures and, if so, describe those measures and the climate projections that informed them.

Environmental Justice Considerations

Consistent with the Biden administration's focus on environmental justice, the CEQ's guidance includes environmental justice considerations relevant to evaluating climate change effects in the NEPA process. The guidance notes that environmental justice communities and other groups are more vulnerable to climate-related health effects and may face barriers to engagement. CEQ recommends that agencies use environmental justice experts and resources from the White House Environmental Justice Interagency Council to identify approaches to avoid or minimize adverse effects on minority and low-income communities. The guidance states that agencies should engage environmental justice communities early in the scoping and project planning process to understand any unique climate-related risks and concerns. It also states that agencies should consider effects of climate change on vulnerable communities when designing a project and identifying alternatives. The guidance states that agencies should consider (1) whether certain communities experience disproportionate cumulative effects that raise environmental justice concerns, (2) whether the effects of climate change in association with the effects of a proposed action may result in disproportionately high and adverse effects on environmental justice communities, and (3) how impacts from the proposed action could potentially amplify climate change-related hazards that affect environmental justice communities.

Analysis and Implications

The CEQ's new guidance goes significantly beyond the prior guidance document issued during the Obama administration, as well as beyond requirements established by courts. Some of the most notable developments include the following:

- The CEQ expects that, in most circumstances, agencies quantify a project's reasonably foreseeable direct and indirect GHG emissions increases or reductions annually and over a project's lifetime. This could create an additional burden on agencies as well as project applicants (particularly for projects that will have substantial direct and/or indirect GHG emissions, such as fossil fuel projects or some transportation infrastructure), who can be requested or required to provide information that the lead agency needs to quantify emissions. However, the CEQ offers its blessing for NEPA reviews to have less detailed analysis for projects that will have net GHG emissions reductions, such as utility-scale solar and offshore wind projects.
- The CEQ's prior guidance document issued during the Obama administration, as well as the Trump administration proposed guidance, recommended using a project's GHG emissions as a proxy for its climate change effects without linking the effects analysis to cost considerations. The CEQ's new guidance states that agencies should, in most circumstances, monetize the effects of a project's GHG emissions using the social cost of GHGs. And it suggests that agencies should, as relevant and helpful, use other practices—analyzing consistency with climate action goals and commitments (including international agreements), explaining climate change effects (including those experienced locally in relation to the project) associated with a project's increase in GHG emissions, and providing comparisons of a project's GHG emissions to more familiar terms—to contextualize the effects of a project's GHG emissions.
- The CEQ encourages agencies to mitigate GHG emissions to the greatest extent possible.

The guidance does not establish or change legal requirements. Nevertheless, agencies will likely rely on the guidance when conducting NEPA reviews, and courts may give some deference to the guidance, as they did with prior CEQ climate change guidance documents. *See, e.g., WildEarth Guardians v. Jewell*, No. 1:16-CV-00605-RJ, 2017 WL 3442922 (D.N.M. Feb. 16, 2017); *WildEarth Guardians v. Jewell*, 738 F.3d 298 (D.C. Cir. 2013).

Next Steps

The CEQ's new guidance on GHG emissions and climate change is effective immediately. The guidance states that agencies should use it for all new NEPA reviews going forward and should consider whether to apply it to ongoing NEPA reviews if it would inform the consideration of alternatives or help address public comments. The CEQ is accepting comments on the guidance for 60 days, due on or before March 10, 2023, and may revise the guidance in response to comments.

Endnotes

[1] 88 Fed. Reg. 1196 (January 9, 2023).

[2] 86 Fed. Reg. 24669 (May 7, 2021).

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