



HIGHLIGHTS FROM: Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews

SYNOPSIS

When addressing climate change, federal departments and agencies (hereon “agencies”) should consider climate change from two aspects: (1) the potential effects of a proposed action on climate change as indicated by assessing greenhouse gas (GHG) emissions¹; and (2) the effects of climate change on a proposed action and its environmental impacts.

The guidance does not establish a particular quantity of GHG emissions as a threshold for “significantly” affecting the quality of the human environment.

In each of the two major sections that follow, main points and recommendations for effectively incorporating climate change into National Environmental Policy Act (NEPA) documents (according to the guidance document) are provided.

GHG EMISSIONS AS A PROXY FOR THE CLIMATE CHANGE IMPACTS OF A PROPOSED ACTION

- Recommends that agencies use the projected GHG emissions associated with a proposed action(s) as a proxy for assessing potential effects on climate change in NEPA analysis.
- Indicates that a statement that emissions from a proposed federal action represent only a small fraction of global emissions is **not** an appropriate basis for deciding whether or to what extent to consider climate change impacts under NEPA.
- Indicates that agencies should use appropriate tools and methodologies (see next bullet) for quantifying GHG emissions and comparing GHG quantities across alternative scenarios.



Announcement and guidance can be found at the following location: <https://www.whitehouse.gov/administration/eop/ceq/initiatives/nepa/ghg-guidance>

- Example Quantification Tools and Methodologies:
 - Agencies should quantify the proposed action’s projected direct and indirect GHG emissions.
 - Analysis should be commensurate with the quantity of projected GHG emissions.
 - When data inputs are reasonably available to support calculations, agencies should conduct GHG analyses and disclose **quantitative estimates**² of GHG emissions in their NEPA reviews.
 - Include emissions from fossil fuel combustion and estimates of GHG emissions and carbon sequestration for many of the sources and sinks.
 - Important to consider the proposed action’s temporal scale, and the availability of input data.
- If an agency determines that quantifying GHG emissions is not warranted (due to tools/methodologies/or data inputs not reasonably available), the agency should provide a **qualitative** analysis and rationale for determining that the quantitative analysis is not warranted.
 - Qualitative analysis can rely on sector-specific descriptions of the GHG emissions of the category of the federal agency action.
 - Provide a qualitative summary discussion of the impacts of GHG emissions based on authoritative reports³.

SCOPE OF THE PROPOSED ACTION

- Agencies should take into account the proposed action – including “connected” actions – subject to reasonable limits based on feasibility and practicality.

ALTERNATIVES

- Agencies should compare the anticipated levels of GHG emissions from each alternative including the no-action alternative.

DIRECT AND INDIRECT EFFECTS

- If direct and indirect GHG emissions can be quantified based on available information, including reasonable projections and assumptions, agencies should consider and disclose reasonably foreseeable direct and indirect emissions.
- Agencies should disclose the information/assumptions used in the analysis and explain any uncertainties.
- To compare estimated direct and indirect emissions with GHG emissions from the no-action alternative, agencies should draw on existing, timely, objective, and authoritative analyses⁴.
 - In the absence of such analyses, agencies should use other available information.
 - If such analyses or information for quantification is unavailable, or the complexity of comparing emissions is overly speculative, then the agency should quantify emissions to the extent that this information is available.

CUMULATIVE EFFECTS

- Direct and indirect effects analysis for GHG emissions will adequately address the cumulative impacts for climate change from the proposed action and its alternatives.
- A separate cumulative effects analysis for GHG emissions is **not** needed.

MITIGATION

- Agencies should consider reasonable mitigation measures and alternatives as provided for under existing CEQ regulations.

CONSIDERING THE EFFECTS OF CLIMATE CHANGE ON A PROPOSED ACTION AND ITS ENVIRONMENTAL IMPACTS

- According to the U.S. Global Change Research Program (USGCRP) and others, GHGs already in the atmosphere will continue altering the climate system into the future, even with current or future emissions control efforts. Therefore, NEPA reviews should consider an action in the context of the future state of the environment.
- Climate change adaptation and resilience⁵ are important considerations when completing a NEPA review.

AFFECTED ENVIRONMENT

- Agencies should remain aware of the evolving body of scientific information as more refined estimates of the impacts of climate change, both globally and at a localized level, become available.

IMPACTS

- Climate change can make a resource, ecosystem, human community, or structure more susceptible to many types of impacts and lessen its resilience to other environmental impacts apart from climate change.
- An increase in a resource's, ecosystem's, human community's, or structure's vulnerability can exacerbate the effects of the proposed action.

AVAILABLE ASSESSMENTS AND SCENARIOS

- Agencies **need not undertake new research or analysis of potential climate change impacts**, but may summarize and incorporate by reference the relevant scientific literature⁶.



TRADITIONAL NEPA TOOLS & PRACTICES

Frame of Reference

- NEPA reviews should discuss relevant approved federal, regional, state, tribal, or local plans, policies, or laws for GHG emission reductions or climate adaptation to make clear whether a proposed project's GHG emissions are consistent with such plans or laws.

Incorporation by Reference

- Incorporation of other studies by reference is of great value in considering GHG emissions/implications of climate change.

Programmatic or Broad-based Studies and NEPA Reviews

- A programmatic or broad-based NEPA review also serves as an efficient mechanism in which to assess agency efforts to adopt broad-scale sustainable practices for energy efficiency, GHG emissions avoidance, and emissions reduction.

OPPORTUNITIES FOR RESILIENCE AND ADAPTATION

- Agencies should take into account their ongoing efforts to incorporate environmental justice⁷, development in floodplains⁸, and vulnerability to the effects of climate change⁹.
- Individual agency adaptation plans and interagency adaptation strategies are also other good examples of the type of relevant and useful information that can be considered¹⁰.

SPECIAL CONSIDERATIONS FOR BIOGENIC SOURCES OF CARBON

- Certain land management actions involve GHG emissions and carbon sequestration¹¹.



EFFECTIVE DATE

- Agencies should apply this guidance to all new proposed agency actions when a NEPA review is initiated (as of August 5, 2016; effective date as published in the August 1, 2016, Federal Register.)
- Agencies should exercise judgment when considering whether to apply this guidance to the extent practicable to an on-going (as of August 5, 2016) NEPA process.

NOTES

¹GHGs are defined as carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride. The common unit of measurement for GHGs is metric tons of CO₂ equivalent (mt CO₂-e).

²Examples of the kinds of methodologies presented in the Council on Environmental Quality's (CEQ) 2012 Guidance for Accounting and Reporting GHG Emissions for a wide variety of activities associated with federal agency operations.

³Such as the USGCRP's National Climate Assessments and The Impacts of Climate Change on Human Health in the United States, a Scientific Assessment of the USGCRP.

⁴Such as those by the Energy Information Administration, the Federal Energy Management Program, or Office of Fossil Energy of the Department of Energy.

⁵Defined as adjustments to natural or human systems in response to actual or expected climate changes.

⁶For example, agencies may summarize and incorporate by reference the relevant chapters of the most recent national climate assessments or reports from the USGCRP.

⁷Including the environmental justice strategies required by Executive Order 12898, as amended, and consider whether the effects of climate change in association with the effects of the proposed action may result in a disproportionate effect on minority and low income communities.

⁸Agencies should take into account increased risks associated with development in floodplains, avoiding such development wherever there is a practicable alternative, as required by Executive Order 11988 and Executive Order 13690.63.

⁹For example, agencies should consider increasing sea level, drought, high intensity precipitation events, increased fire risk, or ecological change.

¹⁰Such as agency Climate Adaptation Plans, the National Fish, Wildlife, and Plants Climate Adaptation Strategy, and the National Action Plan: Priorities for Managing Freshwater Resources in a Changing Climate.

¹¹For example, prescribed burning, timber stand improvements, fuel load reductions, scheduled harvesting, and livestock grazing.

¹²For example, earlier programmatic studies or information such as management plans, inventories, assessments, and research that consider potential changes in carbon stocks, as well as any relevant programmatic NEPA reviews.