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U.S. Environmental Protection Agency  
EPA Docket Center  
Docket ID No. EPA-HQ-OAR-2021-0317  
Mail Code 28221T  
1200 Pennsylvania Ave. NW  
Washington, DC 20460

January 25, 2022

RE: Docket ID No. EPA-HQ-OAR-2021-0317

Dear Sir or Madam:

Thank you for the opportunity to comment on the Environmental Protection Agency's (EPA's) Proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (hereinafter "Proposed Standards" or "Standards").

Public Employees for Environmental Responsibility (PEER) is concerned that the Proposed Standards' Regulatory Impact Analysis (RIA) does not properly account for the Standards' impact on climate change. The RIA calculates the rules' impact using methane's global warming potential – its contribution to climate change relative to carbon dioxide – over 100 years. A growing body of scientific evidence suggests that the RIA should also examine methane's global warming potential over 20 years. For this reason, PEER requests that EPA provide the following information when it publishes its final Standards of Performance:

- Tables 1-3, 2-6, 2-11, 3-2, and 5-1 from the Proposed Standards' Regulatory Impact Analysis, each with an additional column for methane-CO<sub>2</sub> equivalent emission reductions calculated using a global warming potential of 81.
- A response to Interagency Comment 2060-AV15 (Doc ID No. EPA-HQ-OAR-2021-0317-0125) suggesting that EPA add such columns.

## **Background**

Each year, the U.S. oil and natural gas industry emits 13 million metric tons of methane, a potent greenhouse gas.<sup>1</sup> EPA’s Proposed Standards aim to curb these emissions – and, by extension, climate change.

To gauge these rules’ effectiveness, EPA has assigned methane a Global Warming Potential. A pollutant’s global warming potential (GWP) indicates its warming effect relative to carbon dioxide over a certain period of time. EPA’s Proposed Standards cite a 100-year GWP of 25 for methane, meaning that one ton of methane warms the planet as much as 25 tons of carbon dioxide over 100 years.<sup>2</sup> Over a shorter timeframe, methane warms the planet more: the Proposed Standards cite a 20-year GWP of 81.<sup>3</sup>

The Proposed Standards acknowledge the higher 20-year GWP,<sup>4</sup> but the Regulatory Impact Analysis (RIA) calculates methane’s climate impact only using the 100-year GWP<sup>5</sup>. As explained below, the RIA should also calculate its impact using a 20-year GWP.

### **EPA should calculate the rules’ impact using a 20-year GWP, and present these findings when it releases the Final Performance Standards**

EPA explains that its decision to use a 100-year GWP is “in accordance with the practice of the EPA [Greenhouse Gas Inventory], the EPA [Greenhouse Gas Reporting Program], and international reporting standards under the UN Framework Convention on Climate Change.”<sup>6</sup> However, EPA does not specify why those programs’ using a 100-year GWP preclude it from using the 20-year GWP here.

This lack of explanation is troubling, given the growing body of scientific evidence that favors using a 20-year GWP when crafting methane regulations. Several climate “tipping points” either have been triggered or will be in a matter of decades, not centuries. The Intergovernmental Panel on Climate Change sees a high probability of methane release from permafrost thaw in the 21st century.<sup>7</sup> Scientists have also found evidence that other tipping points, such as collapse of the Antarctic ice sheets or dieback of the Amazon

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<sup>1</sup> Ramón A. Alvarez et al, *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, 361 *SCIENCE* 6398, 186 (2020).

<sup>2</sup> Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review, 86 Fed. Reg. 63,110, 63,130 (Nov. 15, 2021) (to be codified at 40 C.F.R. pt. 60) (hereafter “Standards of Performance”) (citing Intergovernmental Panel on Climate Change [IPCC], *AR4 Climate Change 2007: Synthesis Report* (2007), <https://www.ipcc.ch/report/ar4/syr/>).

<sup>3</sup> Standards of Performance at 61,130.

<sup>4</sup> *See Id.* (“When using the AR6 20-year GWP of 81, which only looks at impacts over the next 20 years, the total US emissions of methane in 2019 would be equivalent to about 2140 MMT CO<sub>2</sub>”).

<sup>5</sup> *See Proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*, Docket Nos. EPA-452/R-21-003, REGULATORY IMPACT ANALYSIS, (October 2021), Document ID No. [EPA-HQ-OAR-2021-0317-0173](https://www.epa.gov/epa-hq-oar-2021-0317-0173), at 2-38, 1-10, 2-30, 5-2, 3-2.

<sup>6</sup> Standards of Performance at 63,130.

<sup>7</sup> IPCC, *AR6 Climate Change 2021: The Physical Science Basis* (2021), <https://www.ipcc.ch/report/ar6/wg1/>, 5-79.

rain forest, are fast approaching or already under way.<sup>8</sup> This situation demands that EPA regulate the short-term impact of greenhouse gases.

Scientists are beginning to recognize that the 100-year GWP, on its own, is ill-suited for this purpose. A 2020 paper observed that “there was no clear reason for [the Intergovernmental Panel on Climate Change] using this [100-year] value rather than 20 years or 500 years, and more recently the IPCC has stated the 100-year time period is arbitrary.”<sup>9</sup> Other recent peer-reviewed papers have argued that policymakers should use the 20-year GWP alongside the 100-year GWP.<sup>10</sup>

Some policymakers are already using the 20-year GWP. In 2019, New York lawmakers required the state’s Department of Environmental Conservation to use this value in preparing its annual Statewide Greenhouse Gas Emissions Report.<sup>11</sup> Internationally, a report prepared for the UN Framework Convention on Climate Change (UNFCCC) incorporated the 20-year GWP into its recommendations for reducing methane emissions from the oil and gas sector.<sup>12</sup> EPA had claimed that some programs using the 100-year GWP precludes it from adopting the 20-year one. New York and the UNFCCC’s efforts suggest that the 20-year GWP can nonetheless be incorporated into climate policy.

The White House Office of Management and Budget (OMB) recognized this possibility during development of the Proposed Standards. Its comments on the rule’s Regulatory Impact Analysis noted that “the discussion of short vs. Long lived (sic) gases could benefit from explicit use/discussion of the 20-year GWP.”<sup>13</sup>

OMB further noted that “the [Proposed Standards’] preamble has a good exploration of why it’s relevant that we’re dealing with a [short-lived climate pollutant] but [the RIA] never completes the thought by mentioning or applying the 20-year value. It’s very easy to just add a column to a table showing a second CO<sub>2e</sub> estimate using the 20-year one while stressing that the 100-year one is the central estimate per US and international protocols.” EPA left the “Response” section to this comment blank.<sup>14</sup> PEER has filed a Freedom of Information Act request for more information about why it used the 100-year global warming potential in these documents, but as of this writing it has not been completed.

PEER asks that EPA provide a response to OMB’s inquiry when it publishes the final Performance Standards.

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<sup>8</sup> Timothy M. Lenton et al, *Climate Tipping Points – Too Risky to Bet Against*, 575 NATURE 592 (2019).

<sup>9</sup> Robert W. Howarth, *Methane Emissions from Fossil Fuels: Exploring Recent Changes in Greenhouse-Gas Reporting Requirements for the State of New York*, 17 JOURNAL OF INTEGRATIVE ENVIRONMENTAL SCIENCES 69, 71 (2020).

<sup>10</sup> See Lukas P. Fesenfelt et al, *Climate Policy for Short- and Long-Lived Pollutants*, 8 NATURE CLIMATE CHANGE 933 (2018) and Ilissa B. Ocko et al, *Unmask Temporal Trade-Offs in Climate Policy Debates*, 356 SCIENCE 492 (May 5, 2017).

<sup>11</sup> Howarth, *Methane Emissions from Fossil Fuels* at 69.

<sup>12</sup> Kate Larsen et al, *Untapped Potential: Reducing Global Methane Emissions from Oil and Natural Gas Systems* (2013),

[https://www.globalmethane.org/documents/Untapped\\_Potential\\_Reducing\\_Global\\_Methane\\_Emissions\\_Oil\\_Natural\\_Gas\\_Systems\\_ENG\\_April\\_2015.pdf](https://www.globalmethane.org/documents/Untapped_Potential_Reducing_Global_Methane_Emissions_Oil_Natural_Gas_Systems_ENG_April_2015.pdf).

<sup>13</sup> *Proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review*, Docket Nos. EPA-452/R-21-003, INTERAGENCY COMMENT 2060-AV15 AND 2060-AV16 EPA RESPONSE, (October 18, 2021), Document ID No. [EPA-HQ-OAR-2021-0317-0125](https://www.epa.gov/epa-hq-oar-2021-0317-0125).

<sup>14</sup> *Id.*

In addition, for the reasons described above, the public needs to understand how these rules will impact short-term climate change. PEER therefore asks that EPA publish a Regulatory Impact Analysis updated with the following information: Tables 1-3, 2-6, 2-11, 3-2, and 5-with an additional column for methane-CO2 equivalent emission reductions calculated using methane's 20-year GWP of 81.

If any of these requested changes are impractical, PEER asks that EPA explain why, and not simply by citing other reporting programs that use the 100-year GWP. By providing this information, EPA will ensure that scientists and the American public can evaluate the Performance Standards' effectiveness in addressing climate change.

Thank you for your consideration of this request.

Sincerely,

Tim Whitehouse  
Executive Director  
Public Employees for Environmental Responsibility