



May 30, 2023

To: Environmental Protection Agency

Subject: Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 88 Fed. Reg. 18,824 (proposed Mar. 29, 2023)

The Institute for Policy Integrity at New York University School of Law¹ respectfully submits this comment letter to the Environmental Protection Agency (EPA) regarding its proposal to strengthen its power plant effluent guidelines (Proposed Rule).² Policy Integrity is a nonpartisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

EPA amended its power plant effluent guidelines in 2015 using its authority under the Clean Water Act. The agency relaxed those guidelines in 2020, justifying its decision in part with a cost-benefit analysis that failed to quantify or monetize many important categories of regulatory benefits. The Proposed Rule would reverse provisions of the 2020 rule by tightening discharge guidelines for flue gas desulfurization wastewater, bottom ash transport water, and combustion residual leachate resulting from steam electricity generation.

In support of the Proposed Rule, EPA conducts a rigorous cost-benefit analysis that improves on its 2020 assessment. While this analysis finds that the benefits of the Proposed Rule vastly exceed its costs,³ approximately 99 percent of monetized benefits derive from reductions in non-targeted air pollutants.⁴ This is largely because numerous benefits that will result from reductions in targeted water pollutants—including improved health outcomes—remain unquantified. To provide even further support for the Proposed Rule, EPA should:

- Emphasize the significance of nonmonetized benefits resulting from enhanced water quality and explain why water quality benefits are more difficult to monetize than air quality benefits;
- Monetize additional benefit categories for which supporting research is available and qualitatively describe in greater detail any benefit categories that EPA cannot quantify and monetize; and

¹ This document does not purport to represent the views, if any, of New York University School of Law.

² Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 88 Fed. Reg. 18,824 (proposed Mar. 29, 2023) [hereinafter Proposed Rule].

³ *See id.* at 18,826 (“EPA estimates that the proposed rule will cost \$200 million per year in social costs and result in \$1,557 million per year in monetized benefits using a three percent discount rate[.]”).

⁴ *Id.* at 18,882; *see also id.* at 18,876–77 tbls.XII-7 & XII-8.

- Consider performing additional analysis using the agency’s draft updated estimates for the social cost of greenhouse gases.

We expand upon these suggestions below.

I. EPA Should Further Emphasize the Significance of Nonmonetized Water Quality Benefits and Explain Why Those Benefits Are Difficult to Monetize.

Unquantified and/or nonmonetized benefits are important aspects of cost-benefit analysis⁵ that can account for many or even most of a regulation’s benefits. This is especially true for regulations that impact water quality.⁶ EPA could strengthen the Proposed Rule by further emphasizing its substantial unquantified water quality benefits, qualitatively describing those benefits in additional detail, and explaining why such benefits are difficult to monetize.

A robust scientific and economic literature explains why water quality benefits are hard to monetize. Peer-reviewed analyses from Dr. David A. Keiser, a resource economics professor at the University of Massachusetts and member of the EPA Science Advisory Board, and co-authors describe how EPA’s cost-benefit analyses consistently understate the true benefits of water quality improvements.⁷ This underestimate occurs for several reasons, including limited data on water-based recreation, underreporting of water pollution, and the perhaps erroneous assumption that drinking water has been treated sufficiently to eliminate all risk to human health.⁸ In addition, EPA’s valuations of water quality benefits frequently exclude certain types of water sources, such as groundwater.⁹ EPA should discuss these difficulties and omissions in its final rule to contextualize the scope of unquantified and underestimated water quality benefits and make clear why the benefits of non-targeted air pollutant reductions appear so much larger than the benefits of targeted water pollutant reductions.

Additionally, EPA should more specifically describe the water quality benefits that it is unable to monetize and further emphasize that monetized benefits account for only a portion of total benefits. For example, in the Proposed Rule’s executive summary, the only unquantified benefit that EPA specifically names is “improved habitat conditions” for various species.¹⁰ While these benefits are real, this description omits other key nonmonetized benefits like the rule’s unquantified human health benefits, which include the reduced risk of cancer and cardiovascular

⁵ OFF. OF MGMT. & BUDGET, CIRCULAR A-4, at 27 (2003); OFF. OF MGMT. & BUDGET, DRAFT REVISED CIRCULAR A-4, at 45 (2023), <https://www.whitehouse.gov/wp-content/uploads/2023/04/DraftCircularA-4.pdf> (directing agencies to “present any relevant quantitative or qualitative information that would inform an understanding of those effects (including their magnitude and probability)”).

⁶ Chris C. Moore et al., *Measuring the Social Benefits of Water Quality Improvements to Support Regulatory Objectives: Progress and Future Directions*, 120 PNAS (2023).

⁷ David A. Keiser et al., *The Low but Uncertain Measured Benefits of US Water Quality Policy*, 116 Proc. Nat’l Acad. Scis. 5262, 5264 (2019); see also David A. Keiser & Joseph S. Shapiro, *US Water Pollution Regulation over the Past Half Century: Burning Waters to Crystal Springs?*, 33 J. ECON. PERSPS. 51, 66–67 (2019).

⁸ Keiser et al., *supra* note 7, at 5266–67.

⁹ *Id.* at 5267.

¹⁰ Proposed Rule, 88 Fed. Reg. at 18,826 (EPA “anticipates the proposed rule would also generate important unquantified benefits (e.g., improved habitat conditions for plants, invertebrates, fish, amphibians, and the wildlife that prey on aquatic organisms).”).

disease from exposure to lead and arsenic through fish consumption. EPA should boost its discussion of nonmonetized water quality benefits in the rule’s executive summary.

EPA can also further highlight nonmonetized benefits when presenting summary tables of benefits and costs. Most notably, Table I-1—the Proposed Rule’s summary table of “total monetized” costs and benefits¹¹—omits mention of nonmonetized benefits and could thus give readers the impression that such impacts are not significant. This table, as well as other tables throughout the regulatory preamble, could better contextualize the extent to which important benefit categories are not reflected in the monetized values by including a list of all nonmonetized impacts. As EPA acknowledges in Table XII-1, these benefits include the reduced risk of cancer and cardiovascular disease referenced above and reduced health risks from exposure to other metals and toxic compounds in drinking water, fish, and recreational waterbodies.¹² They also include non-health benefits, such as increases in water-based recreation and changes in property values surrounding affected waterbodies.¹³ EPA should highlight these impacts more prominently and frequently in the preamble.

In short, EPA should revise the preamble to further emphasize the Proposed Rule’s nonmonetized water quality benefits. It can do so in several ways. First, EPA should draw on peer-reviewed scholarship to explain why the rule’s water quality benefits are more difficult to monetize than its air quality benefits. Second, EPA should provide more detailed qualitative information about these benefits in the rule’s executive summary, including emphasizing nonmonetized human health benefits. And third, EPA should highlight these benefits in key summary tables and not relegate them to a half-page discussion near the end of the preamble.¹⁴

II. EPA Should Monetize Additional Benefit Categories for Which Supporting Research Is Available.

In addition to more prominently emphasizing the Proposed Rule’s nonmonetized water quality benefits, EPA should seek to monetize some of those benefits. Already, EPA commendably monetizes reduced bladder cancer from bromides, a benefit it did not monetize in prior iterations of its effluent guidelines. EPA should seek to monetize the following additional benefits: reduced cardiovascular disease from fish consumption, human health benefits of reduced exposure to toxic pollutants, housing price increases, and reductions in averting behaviors.

A. EPA should implement its 2015 methodology for monetizing cardiovascular disease from fish consumption or explain why it cannot do so.

Steam power plants discharge lead into surrounding waters. This lead is consumed by fish, which are in turn consumed by humans. Exposure to lead in adults can increase instances of cardiovascular disease and other adverse health effects.¹⁵ Lead exposure, even at low levels, is an

¹¹ *Id.* at 18,827.

¹² *Id.* at 18,871–72.

¹³ *Id.*

¹⁴ *Id.* at 18,877.

¹⁵ BETHANY A. DAVIS NOLL & RACHEL ROTHSCHILD, INST. FOR POL’Y INTEGRITY, AN EVALUATION OF THE BENEFIT-COST ANALYSIS IN THE 2020 STEAM ELECTRIC RECONSIDERATION RULE, 85 Fed. Reg. 64,650 (Oct. 13, 2020), at 10 (2021), https://policyintegrity.org/files/publications/Benefit-Cost_Analysis_in_the_2020_Steam_

important risk factor for cardiovascular disease mortality in the United States.¹⁶ But the Proposed Rule neither quantifies nor monetizes changes in incidence of cardiovascular disease from lead exposure via consumption of self-caught fish.¹⁷

In its 2015 effluent guidelines, EPA monetized the benefits of the reduced incidence of cardiovascular disease from lead exposure via fish consumption.¹⁸ It did so by using a population life model that estimated the gains in life years due to decreased risk of cardiovascular disease from lead in fish, finding annual benefits of \$12.8 million at a 3% discount rate.¹⁹ Notably, the agency characterized cardiovascular health effects as “relatively well understood” such that they could “be quantified in a benefits analysis.”²⁰

Nevertheless, the cost-benefit analysis for the Proposed Rule states that “sufficient data are not available to evaluate and monetize . . . effects to adults from exposure to lead such as cardiovascular diseases.”²¹ While EPA notes that “[s]everal systematic reviews of epidemiological studies found that lead exposure was positively associated with clinical cardiovascular outcomes, including cardiovascular mortality,”²² it finds that the estimated changes are relatively small and thus “unlikely to result in tangible benefits to adults.”²³ The agency does not further elaborate on this conclusion, nor does it explain why it rejects the methodology it used in 2015.²⁴

EPA should explain why its 2015 methodology is no longer applicable, or else consider re-implementing the methodology to monetize the benefits of reduced cardiovascular disease.

Electric_Reconsideration_Rule.pdf.

¹⁶ Bruce P. Lanphear et al., *Low-Level Lead Exposure and Mortality in US Adults: A Population-Based Cohort Study*, 3 LANCET PUB. HEALTH e177 (2018).

¹⁷ Proposed Rule, 88 Fed. Reg. at 18,871.

¹⁸ Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category, 80 Fed. Reg. 67,838 (Nov. 3, 2015) [hereinafter 2015 Rule].

¹⁹ ENV’T PROT. AGENCY, BENEFIT AND COST ANALYSIS FOR THE EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY 3-10 (2015) [hereinafter 2015 BCA]; 2015 Rule, 80 Fed Reg. at 67,876.

²⁰ 2015 BCA, *supra* note 19, at 2-5.

²¹ ENV’T PROT. AGENCY, BENEFIT AND COST ANALYSIS FOR PROPOSED SUPPLEMENTAL EFFLUENT LIMITATIONS GUIDELINES AND STANDARDS FOR THE STEAM ELECTRIC POWER GENERATING POINT SOURCE CATEGORY 2-7 (2023) [hereinafter Proposed BCA].

²² *Id.* at 2-7 (citing Ana Navas-Acien, *Lead and Cardiovascular Mortality: Evidence Supports Lead as an Independent Cardiovascular Risk Factor* (Nat’l Ctr. for Env’t Econ., Working Paper No. 21-03, 2021)).

²³ *Id.*

²⁴ Proposed BCA, *supra* note 21, at 2-7.

B. EPA should more fully account for the human health benefits of reduced exposure to toxic pollutants.

The Proposed Rule quantifies and monetizes an incomplete set of health impacts, excluding major benefits from reduced lead consumption. Although the Proposed Rule monetizes the changes in IQ loss in children from reduced lead exposure, it neither quantifies nor monetizes the reduction in cancer and other adverse health effects from lead exposure. And while EPA states that it lacks sufficient data to evaluate lead's health impacts,²⁵ the agency cites numerous studies that quantify lead's effects on the renal, nervous, immune, and reproductive systems.²⁶ Ideally, EPA should monetize the Proposed Rule's effect on the incidence of lead-related diseases. If EPA cannot monetize these impacts, it should at least quantify them to the extent possible and qualitatively describe them.

EPA should also quantify and monetize health benefits related to the reduction of other toxic pollutants in drinking and recreational water sources. Currently, EPA does not monetize human health benefits related to reductions in aluminum, boron, cadmium, hexavalent chromium, manganese, selenium, thallium, and zinc. EPA explains that it is unable to monetize these pathways "due to data limitations and uncertainty in these quantitative relationships."²⁷ However, oral reference doses for boron,²⁸ selenium,²⁹ thallium,³⁰ and zinc³¹ already exist in EPA's Integrated Risk Information System (IRIS) database. As Dr. Keiser and Cornell University economics professor Dr. Catherine L. Kling explain in a report published by Policy Integrity (Enclosure 1), this data should allow EPA to quantify and monetize the health effects of toxic pollutants in water.³² Furthermore, existing scholarship offers methods to quantify and monetize the health effects of exposure to a range of toxins.³³ In its final rule, EPA should quantify and monetize these health benefits, or if not, more robustly describe them qualitatively.

C. EPA should monetize housing price increases.

In the Proposed Rule, EPA acknowledges that reductions in steam power plant discharges are likely to increase the value of properties near waters affected by discharges. However, EPA does

²⁵ *Id.* at 2-6 to -7.

²⁶ See *id.* at 2-7 for a list of studies including Yutaka Aoki et al., *Blood Lead and Other Metal Biomarkers as Risk Factors for Cardiovascular Disease Mortality*, 95 *MEDICINE* 1 (2016); Rajiv Chowdhury et al., *Environmental Toxic Metal Contaminants and Risk of Cardiovascular Disease: Systematic Review and Meta-Analysis*, *BMJ*, 2018; Karen Clay et al., *Toxic Truth: Lead and Fertility*, 8 *J. ASS'N ENV'T & RES. ECONOMISTS* 975 (2021); Daniel S. Grossman & David J.G. Slusky, *The Impact of the Flint Water Crisis on Fertility*, 56 *DEMOGRAPHY* 2005 (2019); and NAT'L TOXICOLOGY PROGRAM, U.S. DEP'T OF HEALTH & HUM. SERVS., *HEALTH EFFECTS OF LOW-LEVEL LEAD* (2012), https://ntp.niehs.nih.gov/ntp/ohat/lead/final/monographhealtheffectslow-levellead_newissn_508.pdf.

²⁷ Proposed BCA, *supra* note 21, at 2-6.

²⁸ Env't Prot. Agency, Boron and Compounds; CASRN 7440-42-8 (2004).

²⁹ Env't Prot. Agency, Selenium and Compounds; CASRN 7782-49-2 (1991).

³⁰ Env't Prot. Agency, Thallium (I), soluble salts; CASRN Various (2009).

³¹ Env't Prot. Agency, Zinc and Compounds; CASRN 7440-66-6 (2005).

³² DAVID A. KEISER ET AL., INST. FOR POL'Y INTEGRITY, *MEASURING THE BENEFITS OF POWER PLANT EFFLUENT REGULATION 18* (2022), https://policyintegrity.org/files/publications/Steam_Electric_Analysis_Report_v2.pdf.

³³ See, e.g., Gary L. Ginsberg, *Cadmium Risk Assessment in Relation to Background Risk of Chronic Kidney Disease*, 75 *J. TOXICOLOGY & ENV'T HEALTH, PART A* 374 (2012) (quantifying and monetizing the impact of cadmium exposure on renal function).

not quantify or monetize such changes in property values, explaining that (1) the effect of water quality on property values depends on many factors, and (2) total estimated willingness-to-pay for surface water-quality changes, which EPA uses to monetize improvements in water quality, may overlap to some degree with housing price impacts.³⁴

EPA should reconsider its decision not to monetize changes in housing prices. A robust literature attempts to isolate the impacts of various types of water pollution on home values. For instance, a 2021 meta-analysis estimates the average elasticities of home values for 18 measures of water quality, including nitrogen, phosphorus, total suspended solids, turbidity, and water clarity.³⁵ A 2018 study on the impact of mercury on home values estimates that homes within one mile of New York lakes with fish consumption advisories saw a 6–10% decrease in home value.³⁶ And recent working papers estimate the impact of water pollutants on home values.³⁷

Furthermore, while a hedonic analysis of housing prices may overlap to some degree with EPA’s willingness-to-pay analysis, this overlap is only partial.³⁸ For one thing, recent research suggests that hedonic property models do not capture water’s full recreational benefits.³⁹ And EPA can minimize any overlap that does exist by conducting hedonic analysis only for homes that are close to waterbodies, where home price impacts are usually concentrated, and adding that value to benefits estimates of households living outside that range.⁴⁰ Monetizing the change in housing prices stemming from the Proposed Rule would paint a more accurate picture of the rule’s benefits and would be consistent with draft Office of Information and Regulatory Affairs guidance noting the importance of valuing effects on housing prices from pollution reductions.⁴¹ Nonetheless, it would *still* likely underestimate the benefits of improved water quality, as hedonic models do not capture water’s nonuse values.⁴²

D. EPA should monetize the benefits of reducing averting behaviors.

The Proposed Rule neither quantifies nor monetizes benefits from reductions in averting behaviors—here, costly behavior designed to avoid exposure to polluted water. EPA

³⁴ Proposed BCA, *supra* note 21, at 2-15 to 2-16.

³⁵ Dennis Guignet et al., *Property Values, Water Quality, and Benefit Transfer: A Nationwide Meta-Analysis*, 98 LAND ECON. 191 (2022).

³⁶ Chuan Tang et al., *Mercury Pollution, Information, and Property Values*, 92 J. ENV’T ECON. & MGMT. 418 (2018).

³⁷ Wes Austin, *Throwing the Baby out With the Ashwater? Coal Combustion Residuals, Water Quality, and Fetal Health* (Aug. 18, 2020), http://wes-austin.com/files/Austin_JMP_20200818.pdf; Alecia Cassidy et al., *Cleaning Up the Rust Belt: Housing Market Impacts of Removing Legacy Pollutants* (Feb. 3, 2021), http://www.robymeeke.com/wp-content/uploads/2021/02/MSG__20210203.pdf.

³⁸ See Off. of Mgmt. & Budget, Circular A-4: Draft for Public Review 31 (Apr. 6, 2023) (“Even if you develop a complete measure of the public health benefits of the regulation, note that the [] pollutant regulation may also improve the quality of the environment in a community, and the value of real estate in the community will generally rise to reflect the greater attractiveness of living in a better environment. . . . [A]n analysis that fails to incorporate the change in value caused by any land use changes when accounting for costs will not capture the full effects of regulation.”).

³⁹ Yusuke Kuwayama et al., *A More Comprehensive Estimate of the Value of Water Quality*, 207 J. PUB. ECON. (2022).

⁴⁰ KEISER ET AL., *supra* note 32, at 9.

⁴¹ Off. of Mgmt. & Budget, *supra* note 38, at 31.

⁴² *Id.* at 8.

acknowledges as much, stating that its benefits calculation is limited by not accounting for “populations that practice averting behaviors such as purchasing bottled water and filters in response to drinking water violations” and that research shows “a relationship between sales of bottled water and violations of [the Safe Water Drinking Act].”⁴³ Nevertheless, EPA opts not to quantify the benefits of reductions in averting behavior, and it describes the direction of these benefits as “uncertain.”⁴⁴

Economic research offers guidance for quantifying and/or monetizing benefits from reductions in averting behavior. One study estimates that drinking water contamination results in a 17% increase in bottled water sales, equal to approximately \$60 million in consumer spending.⁴⁵ Others quantify the cost of averting behaviors related specifically to lead⁴⁶ and coal ash discharges.⁴⁷ EPA should use this research to inform its own calculation of the cost of averting behaviors. If EPA chooses not to quantify or monetize benefits from reducing averting behaviors, it should at least acknowledge that this omission results in a conservative benefits estimate and discuss relevant economic research.

III. EPA Appropriately Monetizes Climate Benefits Using the Social Cost of Greenhouse Gases, And It Should Consider Additional Analysis Using Its Updated Draft Climate-Damage Estimates.

Even though the Proposed Rule’s costs would exceed its benefits without considering climate effects,⁴⁸ EPA appropriately applies the social cost estimates developed by the Interagency Working Group on the Social Cost of Greenhouse Gases (“Working Group”) to its analysis of climate benefits. The Working Group developed these estimates through a rigorous and transparent process incorporating the best science available at the time.⁴⁹ These values are widely agreed to underestimate the full social costs of greenhouse gas emissions.⁵⁰ For now, however, they remain appropriate to use as conservative estimates, as they have been applied in dozens of previous rulemakings⁵¹ and upheld in federal court.⁵²

While EPA’s application of the Working Group’s valuations is legally justified, the agency should consider conducting an additional sensitivity analysis using draft climate-damage

⁴³ Proposed BCA, *supra* note 21, at 4-27.

⁴⁴ *Id.*

⁴⁵ Joshua Graff Zivin et al., *Water Quality Violations and Avoidance Behavior: Evidence from Bottled Water Consumption*, 101 AM. ECON. REV. 448 (2011).

⁴⁶ Peter Christensen et al., *Economic Effects of Environmental Crises: Evidence from Flint, Michigan*, 15 AM. ECON. J.: ECON. POL’Y 196, 196 (2023).

⁴⁷ Austin, *supra* note 37.

⁴⁸ See Proposed Rule, 88 Fed. Reg. at 18,827 tbl.I-1 (reporting \$1.357 billion in monetized net benefits, using social cost of carbon with 3% discount rate); *id.* at 18,876 tbl.XII-6 (reporting \$440 million in monetized climate benefits using same climate-damage value).

⁴⁹ Proposed BCA, *supra* note 21, at 8-6.

⁵⁰ Interagency Working Group on the Social Cost of Greenhouse Gases, Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide – Interim Estimates under Executive Order 13,990, at 4 (2021); Richard L. Revesz et al., *Global Warming: Improve Economic Models of Climate Change*, 508 NATURE 173 (2014) (Note that co-author Kenneth Arrow was a Nobel Prize-winning economist.).

⁵¹ Peter Howard & Jason A. Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 COLUM. J. ENV’T L. 203, 270–84 (2017) (listing all uses through mid-2016).

⁵² *Zero Zone v. Dep’t of Energy*, 832 F.3d 654, 679 (7th Cir. 2016).

valuations that it published in November 2022.⁵³ EPA’s methodology and valuations are consistent with those applied by a range of expert independent researchers, and while EPA’s draft valuations remain underestimates,⁵⁴ they more fully account for the costs of climate change by incorporating the latest available research on climate science, damages, and discount rates. As detailed in the attached February 2023 comments from Policy Integrity and nine other groups on EPA’s proposal to regulate methane emissions from the oil and gas sector under the Clean Air Act (Enclosure 2), which we incorporate by reference, there are numerous legal, economic, and policy justifications that further bolster EPA’s adoption of the Working Group’s climate-damage valuations.⁵⁵

We are also enclosing a February 2023 comment letter from Policy Integrity and nine other groups explaining in further detail how EPA’s draft climate-damage valuations faithfully implement the roadmap laid out in 2017 by the National Academies of Sciences for updating the social cost of greenhouse gases⁵⁶ and apply recent advances in science and economics on the costs of climate change (Enclosure 3).

Respectfully,

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Enclosures:

- 1) DAVID A. KEISER ET AL., INST. FOR POL’Y INTEGRITY, MEASURING THE BENEFITS OF POWER PLANT EFFLUENT REGULATION (2022)
- 2) Ctr. for Climate & Energy Sols. et al., Comments on the Consideration of the Interagency Working Group’s Social Cost of Greenhouse Gases Valuations in Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (proposed Dec. 6, 2022) (Docket No. EPA-HQ-OAR-2021-0317) (Feb. 13, 2023)
- 3) Ctr. for Climate & Energy Sols. et al., Comments on the EPA External Review Draft of Report on the Social Cost of Greenhouse Gases (Docket No. EPA-HQ-OAR-2021-0317) (Feb. 13, 2023)

⁵³ EPA External Review Draft of Report on the Social Cost of Greenhouse Gases (Sept. 2022) (Docket No. EPA-HQ-OAR-2021-0317).

⁵⁴ *Id.* at 4 (“[B]ecause of data and modeling limitations . . . estimates of the SC-GHG are a partial accounting of climate change impacts and, as such, lead to underestimates of the marginal benefits of abatement.”); *id.* at 72.

⁵⁵ Ctr. for Climate & Energy Sols. et al., Comments on the Consideration of the Interagency Working Group’s Social Cost of Greenhouse Gases Valuations in Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (proposed Dec. 6, 2022) (Docket No. EPA-HQ-OAR-2021-0317) (Feb. 13, 2023).

⁵⁶ NAT’L ACADS. OF SCIS., ENG’G & MED., VALUING CLIMATE DAMAGES: UPDATING ESTIMATION OF THE SOCIAL COST OF CARBON DIOXIDE (2017).