

ORAL ARGUMENT NOT YET SCHEDULED

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

No. 20-1357 (and consolidated cases)

STATE OF CALIFORNIA, et al.,

Petitioners,

v.

ANDREW WHEELER, ADMINISTRATOR, UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY, et al.,

Respondents.

On Petition for Review of Final Action by the
United States Environmental Protection Agency
85 Fed. Reg. 57,018 (September 14, 2020)

**FINAL BRIEF OF THE INSTITUTE FOR POLICY INTEGRITY
AT NEW YORK UNIVERSITY SCHOOL OF LAW
AS *AMICUS CURIAE* IN SUPPORT OF PETITIONERS**

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CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

As required by Circuit Rule 28(a)(1), counsel for the Institute for Policy Integrity at New York University School of Law certifies as follows:

1) All parties, amici, and intervenors appearing in this case are listed in the Opening Brief of the Environmental and Public Health Petitioners.

2) References to the final agency action under review and related and consolidated cases appear in the Opening Brief of the Environmental and Public Health Petitioners.

RULE 26.1 DISCLOSURE STATEMENT

The Institute for Policy Integrity (“Policy Integrity”) is a nonpartisan, not-for-profit organization at New York University School of Law.ⁱ Policy Integrity has no parent companies. No publicly held entity owns an interest in Policy Integrity. Policy Integrity does not have any members who have issued shares or debt securities to the public.

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

**STATEMENT REGARDING SEPARATE BRIEFING,
AUTHORSHIP, AND MONETARY CONTRIBUTIONS**

Policy Integrity is not aware of any other organizations that plan to file amicus briefs in support of Petitioners. Under Federal Rule of Appellate Procedure 29(a)(4)(E), Policy Integrity states that no party's counsel authored this brief in whole or in part, and no party or party's counsel contributed money intended to fund the preparation or submission of this brief. No person—other than the amicus curiae, its members, or its counsel—contributed money intended to fund the preparation or submission of this brief.

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GLOSSARY OF ACRONYMS AND ABBREVIATIONS

Pursuant to Circuit Rule 28(a)(3), the following is a glossary of acronyms and abbreviations used in this brief:

EPA	U.S. Environmental Protection Agency
Rescission Rule	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 85 Fed. Reg. 57,018 (Sept. 14, 2020)
2016 Rule	Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824 (June 3, 2016)

INTEREST OF AMICUS CURIAE

The Institute for Policy Integrity at New York University School of Law (“Policy Integrity”) submits this amicus curiae brief in support of the challenge to Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Review, 85 Fed. Reg. 57,018 (Sept. 14, 2020) (“Rescission Rule”), a rule promulgated by the Environmental Protection Agency (“EPA”). The Rescission Rule repeals emission standards for methane and volatile organic compounds from the oil and gas sector, which were originally promulgated in Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources, 81 Fed. Reg. 35,824 (June 3, 2016) (“2016 Rule”).

Policy Integrity is a nonpartisan, not-for-profit think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy, with a primary focus on environmental issues. Policy Integrity’s economists and lawyers have produced extensive scholarship on the balanced use of economic analysis in regulatory decisionmaking. Our director, Professor Richard L. Revesz, has published over eighty articles and books on environmental and administrative law,

including many on the legal and economic principles that inform rational regulatory decisions.¹

Harnessing this academic expertise, Policy Integrity regularly participates in administrative and judicial proceedings to address the regulatory impact analyses underlying agency rulemakings. *See, e.g.*, Briefs for Institute for Policy Integrity as Amicus Curiae, *Env'tl. Def. Fund v. EPA*, No. 19-1222 (D.C. Cir. Aug. 19, 2020); *Air Alliance Houston v. EPA*, 906 F.3d 1049 (D.C. Cir. 2018); *California v. Bureau of Land Mgmt.*, 277 F. Supp. 3d 1106 (N.D. Cal. 2017) (all arguing that the agency unreasonably disregarded key forgone benefits). In many such cases, courts have agreed that mischaracterizing or ignoring forgone benefits is arbitrary and capricious. *Air Alliance*, 906 F.3d at 1067–68; *California*, 277 F. Supp. 3d at 1123.

In particular, Policy Integrity has published extensive scholarship on the Social Cost of Greenhouse Gases—a methodological tool that agencies use to quantify climate harm—and filed amicus briefs in numerous court proceedings involving its use. *See, e.g.*, Briefs for Institute for Policy Integrity as Amicus Curiae, *California v. Bernhardt*, No. 18-5712, 2020 WL 4001480 (N.D. Cal. July 15, 2020) (criticizing agency's use of domestic-only Social Cost of Methane); *Zero Zone, Inc. v. Dep't of Energy*, 832 F.3d 654 (7th Cir. 2016) (supporting agency's use of global

¹ A full list of publications can be found on Prof. Revesz's faculty profile, <https://its.law.nyu.edu/facultyprofiles/index.cfm?fuseaction=profile.publications&personid=20228>.

Social Cost of Carbon). In these cases, too, courts have frequently agreed with Policy Integrity. *California*, 2020 WL 4001480, at *24–28; *Zero Zone*, 832 F.3d at 677–78.

Most relevant for this proceeding, Policy Integrity submitted two sets of comments on the regulatory proposal underlying the Rescission Rule. In one set, Policy Integrity detailed the flaws in EPA’s economic and legal justifications for the proposal, explaining how EPA’s analysis showed key aspects of the rule to be net costly despite omitting the adverse impacts from volatile organic compound emissions. Inst. for Pol’y Integrity, Comments on Proposed Rule (Nov. 25, 2019).² In the other set, filed jointly with five other not-for-profit groups (including several Petitioners herein), Policy Integrity criticized EPA for drastically and irrationally undervaluing methane emissions by applying social-cost values that purport to reflect only domestic impacts. Inst. for Pol’y Integrity et al., Joint Comments on Proposed Rule (Nov. 25, 2019) (“Joint Comments”).³

Despite these comments, EPA finalized the Rescission Rule without further assessing key costs or explaining its choice to promulgate a rule with costs that concededly outweigh its benefits. As Petitioners argue, the agency’s failure to justify the substantial harms imposed by the Rescission Rule violates the Clean Air Act’s

² Available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0757-1830>.

³ Available at <https://www.regulations.gov/document?D=EPA-HQ-OAR-2017-0757-2201>.

requirement of reasoned decisionmaking. *See, e.g.*, Brief for Environmental and Public Health Petitioners at 35–40. Policy Integrity’s expertise in the assessment of regulatory impacts and experience with the Rescission Rule give it a unique perspective on this claim.

SUMMARY OF ARGUMENT

As Petitioners correctly argue, the Rescission Rule rests on the erroneous conclusion that the 2016 Rule unlawfully defined the oil and gas source category to include transmission and storage equipment. *Id.* at 8–19. But even if EPA’s legal analysis of the 2016 Rule were correct, the Rescission Rule would still be arbitrary and capricious due to the agency’s illogical and imbalanced consideration of regulatory costs and benefits.

EPA’s own regulatory impact assessment concludes that the Rescission Rule causes more environmental and public-health costs than economic benefits, making it a textbook example of a type of regulation that the Supreme Court has characterized as irrational: one that does “significantly more harm than good,” *Michigan v. EPA*, 576 U.S. 743, 752 (2015). Yet the agency fails to consider this crucial fact when deciding whether to proceed with the Rescission Rule instead of other lawful alternatives that would avoid at least some of the rule’s substantial costs, such as regulating the transmission and storage segment as a separate source

category.⁴ While EPA “should have considered” resulting harm to the public when deciding how to regulate, it “did not,” rendering the Rescission Rule arbitrary and capricious. *Dep’t of Homeland Sec. v. Regents of the Univ. of Cal.*, 140 S. Ct. 1891, 1915 (2020) (finding rescission of Deferred Action for Childhood Arrivals program arbitrary and capricious because government failed to consider lawful alternatives to full rescission that would have been less harmful to affected individuals).

Additionally, EPA’s analysis—while concluding that the Rescission Rule is net costly—grossly undervalues two key categories of environmental cost. For one, the agency severely discounts the costs of forgone methane reductions, ignoring the best available science and roughly 90 percent of the total harm from methane emissions that it has previously valued. Second, EPA ascribes no value to forgone volatile organic compound reductions, ignoring the “range of values” it provided in the 2016 Rule demonstrating that the benefit of such reductions is “certainly not zero.” *See Ctr. for Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538

⁴ In addition to eliminating all performance standards for the transmission and storage segment of the source category, the Rescission Rule eliminates methane standards for the production and processing segments of the category. 85 Fed. Reg. at 57,019. EPA contends that this change has “no expected cost or emissions impacts” because the 2016 Rule’s methane standards were entirely duplicative of volatile organic compound standards for the production and processing segments. *See* EPA, Regulatory Impact Analysis for the Review and Reconsideration of the Oil and Natural Gas Sector Emission Standards for New, Reconstructed, and Modified Sources 2-6 (2020) (“RIA”). Without conceding that point, this brief focuses on the removal of the transmission and storage segment, which, according to EPA, is responsible for all of the costs and benefits of the Rescission Rule.

F.3d 1172, 1200 (9th Cir. 2008). These two omissions cause EPA to vastly understate the Rescission Rule’s costs. An accurate accounting would reveal that such costs exceed the rule’s benefits by far more than the agency acknowledges.

In short, EPA repeatedly shortchanges the Rescission Rule’s substantial costs, disregarding the vast majority of those costs while failing to justify the limited costs it does acknowledge. Its determination to promulgate the rule without addressing this “important aspect” cannot stand. *Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

ARGUMENT

To determine whether an action under the Clean Air Act is arbitrary and capricious, 42 U.S.C. § 7607(d)(9)(A), this Court “appl[ies] the same standard of review ... as [it] do[es] under the Administrative Procedure Act.” *Maryland v. EPA*, 958 F.3d 1185, 1196 (D.C. Cir. 2020) (internal quotation marks omitted). Under that standard, a failure to consider the costs of a rulemaking can be fatal, as agencies typically treat cost—that is, “any disadvantage” resulting from a rule, including “harms that regulation might do to human health or the environment”—as a “centrally relevant factor when deciding whether to regulate.” *Michigan*, 576 U.S. at 752–53. This Court also sets aside a rule when the underlying cost-benefit analysis exhibits a “serious flaw,” *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1040 (D.C. Cir. 2012), such as if the agency “inconsistently and opportunistically frame[s]

the costs and benefits . . . [or] fail[s] adequately to quantify the certain costs or to explain why those costs could not be quantified,” *Bus. Roundtable v. Secs. & Exch. Comm’n*, 647 F.3d 1144, 1148–49 (2011).

EPA violates all of these principles in the Rescission Rule, as the agency ignores the fact that the rule is net costly under its own analysis, which itself disregards the vast majority of the rule’s environmental costs without similarly restricting its consideration of purported compliance-cost savings. Furthermore, EPA’s claim that the 2016 Rule was legally deficient cannot excuse its failure to consider the full costs of rescission, because the agency had alternative means of addressing the 2016 Rule’s purported shortcomings.

I. EPA’s Legal Justifications for the Rescission Rule Do Not Obviate Its Obligation to Consider Costs

EPA attempts to justify the Rescission Rule by concluding that the 2016 Rule was an improper exercise of the agency’s Clean Air Act authority because that rule “affect[ed] sources that are not appropriately identified as part of the regulated source category.” 85 Fed. Reg. at 57,019. As Petitioners explain, this conclusion is erroneous. *See* Brief for Environmental and Public Health Petitioners at 8–19.

However, even if EPA’s legal conclusion were correct, it would not excuse the agency’s failure to acknowledge and justify the full costs of the Rescission Rule, because the Rescission Rule was not the only possible remedy for the purported legal deficiencies of the 2016 Rule. As EPA itself acknowledges, the agency had the

alternative of creating a separate source category for the transmission and storage segment and thus preserving at least some of the 2016 Rule’s health and environmental benefits. The agency instead opted to forgo those benefits and promulgate a rule that its own analysis reveals to be net costly.

When faced with a discretionary choice, an agency must satisfy the requirements of rational decisionmaking by “consider[ing each] important aspect of the problem,” “examin[ing] the relevant data[,] and articulat[ing] a satisfactory explanation for its action including a rational connection between the facts found and the choice made.” *State Farm*, 463 U.S. at 43 (internal quotation marks omitted). These requirements apply when an agency “promulgates a regulation interpreting a statute it enforces.” *Encino Motorcars v. Navarro*, 136 S. Ct. 2117, 2125 (2016). Furthermore, the agency must evaluate lawful alternatives when rescinding a supposedly erroneous or unlawful aspect of a prior policy. *See Regents*, 140 S. Ct. at 1911–15.

The Supreme Court’s recent decision in *Department of Homeland Security v. Regents of the University of California* is particularly instructive. There, like here, the defendant agency fully rescinded a prior policy after concluding that the policy had been unlawfully promulgated. *Id.* at 1903. But because the agency did not consider the harms of rescission when less severe “alternatives ... within the ambit of the existing policy” were available, that rescission was arbitrary and capricious.

Id. at 1913 (internal quotation marks and alterations omitted). In other words, when an agency disavows a legal position that informed a prior policy, the agency must still consider lawful alternatives short of full rescission—and is bound by the requirements of rational regulatory decisionmaking when doing so. *Id.* at 1911–15.

As that case illustrates, EPA is bound by all requirements of rational regulatory decisionmaking in this rulemaking, and cannot rely on its legal interpretation alone to justify the Rescission Rule. Indeed, EPA acknowledges that it could cure the alleged defect in the 2016 Rule by separately listing the transmission and storage segment for regulation under Section 111(b) of the Clean Air Act, which would leave the standards set forth in the 2016 Rule functionally in place. 85 Fed. Reg. at 57,019. EPA thus makes a discretionary decision to fully rescind the 2016 Rule, as the Clean Air Act does not compel that alternative.

Accordingly, EPA was obligated to comply with the requirements of rational regulatory decisionmaking when promulgating the Rescission Rule, and the agency’s failure to “articulate a satisfactory explanation” that “consider[s] ... relevant factors” including the rule’s costs renders the rule arbitrary and capricious. *State Farm*, 463 U.S. at 42–43.

II. EPA Fails to Offer a Sufficient Justification for Choosing to Promulgate a Rule That Does More Harm Than Good, And Gives Inadequate Consideration to Less Costly Alternatives

In its Regulatory Impact Analysis for the Rescission Rule—prepared pursuant to an Executive Order that requires agencies to assess regulatory impacts and, “unless a statute requires another regulatory approach,” adopt a rule only when its “benefits ... justify its costs,” Exec. Order No. 12,866, §§ 1(a), (b)(6), 58 Fed. Reg. 51,735 (Oct. 4, 1993)—EPA concludes that the Rescission Rule results in greater costs (in the form of forgone health and environmental benefits) than benefits (in the form of compliance-cost savings), making the rule net costly. Yet the agency offers no coherent explanation for imposing this net harm, and refuses to meaningfully consider alternatives that would avoid it. Each failure renders the Rescission Rule arbitrary and capricious.

EPA analyzes the impacts of the Rescission Rule at two discount rates—i.e., the annual rate at which future benefits and costs are reduced to convert to present value. At the 3 percent discount rate, EPA finds that benefits exceed costs by a total of \$25 million. EPA, Regulatory Impact Analysis for the Review and Reconsideration of the Oil and Natural Gas Sector Emission Standards for New, Reconstructed, and Modified Sources 1-3 (2020) (“RIA”).⁵ While EPA finds that

⁵ Available at https://www.epa.gov/sites/production/files/2020-08/documents/oil_and_natural_gas_nsps_review_and_reconsideration_final_ria.pdf

cost savings exceed monetized forgone benefits at the 7 percent discount rate, *see id.* (presenting rule as net beneficial by \$14 million at this rate), it does not articulate a preference for that discount rate over the lower rate.⁶ And, in fact, a simple average of the results at the two discount rates shows that monetized costs exceed total benefits by over \$5 million. *See id.* Yet EPA barely acknowledges the findings of its cost-benefit analysis in choosing to regulate, as its preamble for the Rescission Rule simply summarizes the analysis’s finding without otherwise recognizing that the rule

f. Notably, this calculation does not even account for numerous “[n]on-[m]onetized [f]orgone [b]enefits” of the Rescission Rule—namely health effects from exposure to various localized air pollutants including volatile organic compounds—which, the agency recognizes, makes the rule even costlier than EPA’s monetized estimate. 85 Fed. Reg. at 57,067.

⁶ The reason that the discount rate affects that relative size of cost and benefits is that the bulk of the Rescission Rule’s cost savings are frontloaded, whereas its forgone benefits are more evenly distributed across the review period. Since a higher proportion of forgone benefits than cost savings accrues in the future, applying a higher discount rate decreases the forgone benefits estimate more than it does the cost savings estimate. Had EPA analyzed the rule’s effects for longer than ten years—as it often does, Office of Mgmt. & Budget, Circular A-4 on Regulatory Analysis 34 (2003) (“Circular A-4”) (recognizing that EPA analyses sometimes “extend[] forward for 30 years”)—it therefore may well have found the rule to be net costly at the 7 percent discount rate as well.

Because EPA is limited to “the grounds invoked by the agency” at the time of the determination, *Sec. & Exch. Comm’n v. Chenery Corp.*, 332 U.S. 194, 196 (1947), it cannot now claim a preference for the 7 percent discount rate in assessing the rule. In any event, such a claim would violate longstanding agency practice, which uses both a 3 percent and 7 percent discount rate in cost-benefit analysis with a preference for the lower rate to assess rules, such as the Rescission Rule, that “primarily ... affect[] private consumption.” Circular A-4 at 33.

results in more costs than benefits or explaining why the rule is justified despite this fact. 85 Fed. Reg. at 57,020; *see also id.* at 57,067.

EPA’s cursory consideration of regulatory costs is insufficient. As the Supreme Court recognizes, “[a]gencies have long treated cost as a centrally relevant factor when deciding whether to regulate,” and “reasonable regulation” entails considering both “the advantages *and* the disadvantages” of a rule. *Michigan*, 576 U.S. at 752–53. Yet here, EPA “does not explain why the costs saved were worth the benefits sacrificed”—a deficiency that renders the Rescission Rule arbitrary and capricious. *Pub. Citizen, Inc. v. Mineta*, 340 F.3d 39, 58 (2d Cir. 2003). The agency’s failure to meaningfully “consider the relative costs and benefits” of the Rescission Rule thus provides a basis to vacate the rule. *Cooling Water Intake Structure Coal. v. EPA*, 905 F.3d 49, 67 (2d Cir. 2018) (citing *Michigan*, 576 U.S. at 752–53).

The Supreme Court’s decision in *Michigan v. EPA* is especially instructive. There, the Court held that EPA did not “consider[] ... the relevant factors” when it “gave cost no thought *at all*” in its “decision to regulate.” 576 U.S. at 750–51 (internal quotation marks omitted). EPA likewise disregards cost in its regulatory decision here by ignoring that the Rescission Rule is net costly. Indeed, as the Supreme Court held in *Michigan*, rulemaking requires agencies to “consider cost,” not just quantify it. *Id.* at 756. And as the Court further explained, “[n]o regulation is appropriate if it does significantly more harm than good,” *id.* at 752 (internal

quotation marks omitted)—a standard that EPA plainly ignores in promulgating the Rescission Rule.

Faced with an option that is net harmful to society, EPA should have pursued the logical next step of exploring alternatives. Indeed, the primary Executive Order on cost-benefit analysis, which has been in effect for over 25 years, explains that “agencies should select those approaches that maximize net benefits” when “choosing among alternative regulatory approaches.” Exec. Order No. 12,866 § 1(a). Guidance from the Office of Management and Budget on best practices for cost-benefit analysis, which dates back to the George W. Bush administration, similarly advises agencies to “identify the [regulatory] alternative that maximizes net benefits.” Office of Mgmt. & Budget, Circular A-4 on Regulatory Analysis 10 (2003) (“Circular A-4”). Needless to say, a regulation that results in net costs does not meet these objectives and calls for the assessment of other options.

Here, EPA faced the obvious alternative of creating a separate source category for the transmission and storage segment with standards that preserved the benefits of the 2016 Rule. Specifically, as EPA acknowledges, the agency could have determined that this segment significantly contributes to pollution that endangers public health and welfare, thereby enabling the agency to list the source category and maintain emission limits on transmission and storage equipment. 85 Fed. Reg. at 57,049. EPA must at least give a satisfactory explanation for rejecting that option.

State Farm, 463 U.S. at 48 (explaining that clear alternative “[a]t the very least ... should have been addressed”).

Yet EPA’s brief rationale for rejecting that alternative is plainly lacking. In three short paragraphs, the agency asserts that the Rescission Rule “focuses on the correction” of EPA’s allegedly unlawful “inclusion of the transmission and storage segment in the Crude Oil and Natural Gas Production source category,” and that “EPA is not, at this time, assessing whether the emissions from the transmission and storage segment contribute significantly to the endangerment to public health or welfare.” 85 Fed. Reg. at 57,049. In other words, EPA admits that it does not consider the alternative of creating a separate source category for the transmission and storage segment. And its cursory explanation does not even hold up: Contrary to the agency’s assertion that it wishes to simply correct an alleged legal error in the 2016 Rule regarding the expansion of the oil and gas source category, EPA establishes new standards for significant contribution findings, repeals methane standards, *id.* at 57,024, and couples the Rescission Rule with another set of regulations that drastically rolls back reporting and monitoring requirements for the oil and gas industry, Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources Reconsideration, 85 Fed. Reg. 57,398 (Sept. 15, 2020).

In short, EPA’s own analysis reveals that the Rescission Rule causes more harm than good, yet the agency neither considers this fact when deciding to regulate nor meaningfully assesses alternatives that would avoid this result, even though it undertakes other actions that go beyond simply correcting the alleged legal deficiency in the 2016 Rule. As the product of such an irrational assessment, the Rescission Rule cannot stand.

III. Because EPA Neglects Critical Environmental Costs, the Rule Is Vastly More Harmful Than the Agency Acknowledges

In addition to failing to justify the costs that it does calculate, EPA declines to even quantify the vast majority of health and environmental harm that will flow from the Rescission Rule. This opportunistic minimization of the Rescission Rule’s costs represents a “serious flaw undermining” the agency’s analysis that supplies an independent basis to vacate the rule. *Nat’l Ass’n of Home Builders*, 682 F.3d at 1040. Specifically, as detailed below, EPA breaks from its prior practice both by vastly undervaluing the harm from methane emissions and placing no value on volatile organic compound emissions.

A. EPA Severely Undervalues the Costs of Forgone Methane Reductions

EPA sweeps the vast majority of the Rescission Rule’s methane-related costs under the rug through a single choice: to abandon its prior valuation of the Social Cost of Methane, which was rigorously developed by an interagency working group, and instead apply an “interim” value that is analytically flawed. *See California*, 2020

WL 4001480, at *24–28 (rejecting agency’s reliance on the same “interim” Social Cost of Methane that EPA uses here).

EPA’s new approach bucks expert consensus, conflicts with the Clean Air Act’s concern for the global climate, omits key impacts, and is inconsistent with the agency’s treatment of cost savings.

1. Background on the Social Cost of Methane

The Social Cost of Methane is a methodology for quantifying the incremental climate impacts of methane emissions by “translat[ing] emissions into changes in atmospheric greenhouse concentrations, atmospheric concentrations into changes in temperature, and changes in temperature into economic damages.” RIA at B-1. The most widely used estimate was developed by the Interagency Working Group on the Social Cost of Greenhouse Gases (“Working Group”), a coordinated effort among twelve White House offices and federal agencies including EPA. The Working Group calculated the Social Cost of Methane by averaging three models developed by expert economists, providing a central estimate of \$1,400 (in 2007\$) per metric ton of methane emitted in 2025.⁷

⁷ Working Group, Addendum to Technical Support Document on Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866 at 7 tbl.1 (2016), available at https://www.epa.gov/sites/production/files/2016-12/documents/addendum_to_sc-ghg_tsd_august_2016.pdf (“Technical Support Document Addendum”).

The Working Group’s valuation of the Social Cost of Methane (along with its social cost estimates for other greenhouse gases) has been widely endorsed and applied. The National Academies of Sciences, while recommending some updates, broadly supports the Working Group’s approach. *See Nat’l Acads. Sci., Eng’g & Med., Valuing Climate Damages: Updating Estimates of the Social Cost of Carbon Dioxide 3* (2017). And regulatory agencies including EPA have applied the Working Group’s valuations dozens of times in regulatory impact analysis. Peter Howard & Jason Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 Colum. J. Envtl. L. 203, 270–84 (2017) (listing all uses through mid-2016).⁸ Most notably, EPA used the Working Group’s estimates as the basis for valuing the 2016 Rule’s climate benefits.⁹ EPA, Regulatory Impact

⁸ This article and the National Academies report were both submitted to the Rescission Rule’s administrative record as attachments to the Joint Comments.

⁹ When the 2016 Rule was promulgated, the Working Group had published estimates of the Social Cost of Carbon (another greenhouse gas) but not the Social Cost of Methane. EPA used the Working Group’s Social Cost of Carbon valuations as the basis for estimating the Social Cost of Methane, with adjustments made to account for the difference in heat-trapping potency between the two greenhouse gases. When the Working Group developed estimates of the Social Cost of Methane shortly after the 2016 Rule was promulgated, it used the same methodology that EPA applied and derived very similar valuations. *Compare* 2016 RIA at 4-16 tbl. 4-3 (reporting Social Cost of Methane using Marten et al. methodology) *with* Technical Support Document Addendum at 4–8 (discussing same methodology and reporting similar results).

Analysis of the Final Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Sources 4-5 to 4-19 (2016) (“2016 RIA”).¹⁰

Yet in the Rescission Rule, EPA sets aside the Working Group’s methodology and estimates the Social Cost of Methane at \$68 to \$200 (in 2016\$) per metric ton emitted in 2025, RIA at 2-38—roughly 10 percent of the Working Group’s central valuation. EPA concludes that the Working Group’s approach is inapposite for regulatory analysis because it accounts for climate impacts that occur outside U.S. borders. *Id.* at 2-37. But controlling legal precedent in fact supports a global damages estimate, and EPA’s attempt to develop a domestic-only metric disregards key U.S. interests.

2. Controlling Legal Precedents Support a Global Approach

While EPA seeks to assess only the Rescission Rule’s domestic impacts, the Clean Air Act (under which the rule is promulgated) counsels a broader approach for actions with substantial transboundary effects.

Specifically, the Clean Air Act directs EPA to regulate new sources for “air pollution which may reasonably be anticipated to endanger public health or welfare,” 42 U.S.C. § 7411(b)(1)(A), with “welfare” defined to include “effects on ... weather... and climate,” *id.* § 7602(h). In interpreting that language, the Supreme

¹⁰ Available at https://www3.epa.gov/ttnecas1/docs/ria/oilgas_ria_nsps_final_2016-05.pdf.

Court has explained that “EPA can curtail the emission of substances that are putting the *global* climate out of kilter.” *Massachusetts v. EPA*, 549 U.S. 497, 531 (2007) (emphasis added). And this Court likewise recognizes that the Clean Air Act “protect[s] against precisely the types of harms caused by greenhouse gases,” firmly rejecting the notion that the Act is “focused solely on localized air pollution.” *Coal. for Responsible Reg. v. EPA*, 684 F.3d 102, 138 (D.C. Cir. 2012).¹¹ Thus, by deliberately disregarding the Rescission Rule’s non-domestic climate impacts, EPA frustrates the Clean Air Act’s concern for the global climate.

The primary Executive Order on regulatory cost-benefit analysis also supports the consideration of international climate costs, as that Order instructs agencies to “assess *all* costs and benefits of available regulatory alternatives” and to “select those approaches that maximize net benefits ... unless a statute requires another regulatory approach.” Exec. Order No. 12,866, § 1(a). The Clean Air Act certainly does not “require[] another regulatory approach.” *Id.* To the contrary, it requires EPA to take account of “global climate” impacts. *Massachusetts*, 549 U.S. at 531.

EPA here does not grapple with the Clean Air Act’s international concern, but instead relies on two executive documents to argue that its cost-benefit analysis should focus narrowly on domestic effects. First, the agency notes that a 2017

¹¹ *Rev’d in part on other grounds sub nom. Util. Air Reg’y Grp. v. EPA*, 573 U.S. 302 (2014).

Executive Order withdrew the Working Group’s technical support documents “as no longer representative of government policy.” RIA at 2-37 (citing Exec. Order No. 13,783, 82 Fed. Reg. 16,093 (Mar. 28, 2017)). But that Order “could not erase the scientific and economic facts that formed the foundation for [the Working Group’s] estimate,” nor does it “alter ... what constitutes the best available science.” *California*, 2020 WL 4001480, at *25. And executive policy cannot supersede this Court’s prohibition on agencies “inconsistently and opportunistically fram[ing a rule’s] costs and benefits,” *Bus. Roundtable*, 647 F.3d at 1148–49—which EPA violates by omitting most of the Rescission Rule’s climate costs.

EPA also notes that the Office of Management and Budget’s main guidance document on regulatory analysis advises agencies to “focus on benefits and costs that accrue to citizens and residents of the United States.” RIA at 2-37 (quoting Circular A-4 at 15). But this same guidance also advises that some analyses call for “different emphases ... depending on the nature and complexity of the regulatory issues” at stake. Circular A-4 at 3. Rules affecting climate change merit such a shift: Greenhouse gases “affect[] the climate of the entire world,” and so, as the U.S. Court of Appeals for the Seventh Circuit recognized in upholding reliance on the Working Group’s estimates, “those global effects are an appropriate consideration when looking at a national policy.” *Zero Zone*, 832 F.3d at 679.

EPA's contrary position in the Rescission Rule therefore violates best practices for cost-benefit analysis and a key purpose of the Clean Air Act.

3. EPA's "Interim" Methodology Overlooks Key Effects

Even if EPA could justifiably ignore the Rescission Rule's global climate costs, the agency's methane valuation would still be unreasonable because it fails to fully capture the pollutant's domestic impacts.

While EPA's valuation seeks to capture only "climate change impacts that occur within U.S. borders," RIA at B-1, domestic interests extend well beyond the country's physical boundaries. As a federal court explained in rejecting the same approach that EPA applies here, this "analysis ignores impacts on 8 million United States citizens living abroad, including thousands of United States military personnel; billions of dollars of physical assets owned by United States companies abroad; United States companies impacted by their trading partners and suppliers abroad; and global migration and geopolitical security." *California*, 2020 WL 4001480, at *27. U.S. citizens also care about preserving global commons such as oceans and Antarctica, protecting foreign resources like rainforests and megafauna such as pandas, and ensuring the health and welfare of foreign citizens. Joint Comments at 15. Yet EPA's approach omits these critical impacts, thereby underestimating domestic climate harm.

EPA undervalues the Social Cost of Methane for several additional reasons. For instance, EPA’s methodology disregards the dynamics of foreign reciprocity—that is, the fact that the United States would gravely suffer if other countries ignored their contributions to any climate impacts beyond their own strict geographic borders as a result of the United States doing the same. As the Working Group explained, applying an estimate of “global benefits can encourage reciprocal action by other nations, leading ultimately to international cooperation that increases both global and U.S. net benefits.” Working Group, Response to Comments 32 (2015) (“Response to Comments”).¹² Indeed, numerous countries consider worldwide damages when valuing their own emissions—including the United Kingdom, Germany, and Canada—and direct U.S. benefits from international climate policies that are already in effect could reach over \$2 trillion in the next decade. Joint Comments at 10, 13–14. EPA’s assessment fails to account for those benefits.

Moreover, EPA’s “interim” value understates climate costs because climate impacts initially occurring beyond domestic borders ultimately impose significant costs on U.S. citizens and residents due to the interconnected nature of financial, political, health, and security systems. The Working Group thus noted that any domestic valuation must “account for how damages in other regions could affect the

¹² Available at <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-response-to-comments-final-july-2015.pdf>.

United States,” including through “global migration” and “political destabilization.” Working Group, Technical Support Document: Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866 at 11 (2010).¹³ Yet EPA’s methodology explicitly fails to account for “inter-regional” effects. RIA at 2-39. Thus, as the Working Group warned, EPA’s estimate “understate[s] actual impacts to the United States.” Response to Comments at 32.

Indeed, EPA’s “interim” methodology does not come close to capturing these various important effects, as the economic models that the agency uses to assess domestic damages are ill-suited to provide more than an “approximate, provisional, and highly speculative” domestic cost assessment. *Id.* (internal quotation marks omitted). For instance, one of the three models that EPA relies upon approximates regional impacts through its “regional scaling factors,” which are “based on the length of each region’s coastline relative to the [European Union].” Joint Comments at 17. While relative coastline length may provide a reasonable scaling factor for certain climate damages, such as those linked to coastal flooding, it vastly understates many other key climate harms in the United States, where increases in mortality, agricultural losses, and other important climate effects will also occur

¹³ Available at https://www.epa.gov/sites/production/files/2016-12/documents/scc_tsd_2010.pdf.

inland and thus not be adequately represented in an analysis based on relative coastline length. *Id.*

4. EPA's Domestic Climate Focus Is Inconsistent With Its Assessment of Global Cost Savings

EPA's decision to consider only domestic climate costs fails for one more reason: the agency applies no similar geographic limitation to its assessment of the Rescission Rule's economic benefits.

Rather, EPA captures many international cost savings in its benefits estimate. This is because a significant portion of the Rescission Rule's cost savings will ultimately accrue to foreign investors or customers of regulated firms. Between 20 and 30 percent of U.S. stocks and 35 percent of U.S. corporate debt is held by foreigners, including significant foreign investment in resource-extraction industries. *Id.* at 19. Yet EPA makes no attempt to isolate the Rescission Rule's domestic cost savings from these international effects. By comparing domestic climate costs to global economic benefits, EPA places its "thumb on the scale" in a way that courts reject. *Ctr. for Biological Diversity*, 538 F.3d at 1198.

For all of these reasons, EPA fails to assign adequate value to the costs of forgone methane reductions resulting from the Rescission Rule.

B. EPA Fails to Meaningfully Assess the Costs of Forgone Volatile Organic Compound Reductions

EPA additionally refuses to quantitatively assess the costs of volatile organic compound emissions, once again breaking from its prior practice and further minimizing its cost estimates for the Rescission Rule.

When EPA assessed the impacts of the 2016 Rule, the agency provided a range of values for volatile organic compound emissions based on the best available scientific literature. First, the agency explained that as a precursor to particulate matter pollution, volatile organic compound emissions are responsible for such health effects as “premature mortality for adults and infants” as well as “cardiovascular morbidity, such as heart attacks; [and] respiratory morbidity, such as asthma attacks and acute and chronic bronchitis.” 2016 RIA at 4-21. EPA then explained that while the scope of such impacts “varies by the location of the emission reduction,” economic and epidemiological studies provide a damage estimate range of \$300 to \$7,500 per ton of volatile organic compounds emitted, thus providing important context to assess the magnitude of the 2016 Rule’s benefits from reductions in volatile organic compound emissions. *Id.* at 4-21 to 4-22.

The Rescission Rule forgoes many of those emission reductions, yet EPA offers no comparable assessment of the resulting health costs. Instead, the agency states that it “did not quantify these effects” because it “feels more work needs to be done ... for valuing the health effects of [volatile organic compound] emissions

before they are used in regulatory analysis.” 85 Fed. Reg. at 57,066; *see also* RIA at 2-30 to 2-31. Thus, EPA declines to provide *any* quantitative information regarding the harms of volatile organic compound emissions. But as this Court has noted, “[r]egulators by nature work under conditions of serious uncertainty,” and the “mere fact that the magnitude of [a regulatory impact] is *uncertain* is no justification for *disregarding* the effect entirely.” *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1219, 1221 (D.C. Cir. 2004). While there may indeed be a “range of values” for the costs of volatile organic compound emissions, as EPA has recognized in the past, the proper value “is certainly not zero.” *Ctr. for Biological Diversity*, 538 F.3d at 1200.

Compared to EPA’s past discussion of monetized estimates of the health harms associated with volatile organic compounds, the agency’s limited qualitative assessment here—which generically describes the adverse impacts of these pollutants without attributing any degree of harm to the Rescission Rule itself, RIA at 2-32 to 2-33, 2-41 to 2-46—is no substitute. Quantitative estimates of regulatory impacts are widely regarded as “preferable to qualitative descriptions of benefits and costs because they help decision makers understand the magnitudes of [regulatory] effects.” Circular A-4 at 26. Merely describing some effects of volatile organic compounds without attributing any specific degree of incremental harm to the Rescission Rule provides no indication of “how important the[se] ... costs may be

in the context of the overall analysis.” *Id.* at 2. By making “no attempt to evaluate” the costs of volatile organic compound emissions “or to weigh them against the [Rescission Rule’s] purported benefits,” EPA improperly give these costs “short shrift.” *California*, 2020 WL 4001480, at *29.

In sum, EPA’s refusal to monetize costs associated with volatile organic compound emissions—coupled with its use of an arbitrarily low Social Cost of Methane—leads to a severe undercounting of the Rescission Rule’s costs and violates the agency’s duties to fully and meaningfully consider regulatory impacts. The fact that the Rescission Rule’s projected economic benefits are outweighed by even the small fraction of health and environmental costs that EPA *does* quantify illustrates how harmful the rule is—and how arbitrary it was for EPA to promulgate it in lieu of lawful alternatives.

CONCLUSION

For the foregoing reasons, this Court should grant the petitions for review.

DATED: December 14, 2020 Respectfully submitted,

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CERTIFICATE OF COMPLIANCE WITH WORD LIMITATION

Counsel hereby certifies that, in accordance with Federal Rule of Appellate Procedure 32(a)(7)(C), the foregoing brief contains 6,197 words, as counted by counsel's word processing system, and this complies with the applicable word limit established by the Court.

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