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U.S. Environmental Protection Agency
RE: Docket ID No. EPA-HQ-OA-2017-0190

Comments of Clean Air Task Force on Evaluation of Existing Regulations, 82 Fed. Reg. 17,793 (Apr. 13, 2017)

Clean Air Task Force, Center for Biological Diversity, Clean Air Council, Clean Wisconsin, Earthworks, National Wildlife Federation, Natural Resources Council of Maine, The Ohio Environmental Council, and PennFuture (“Commenters”) respectfully submit these comments in response to United States Environmental Protection Agency’s (“EPA”) announcement that “[i]n accordance with Executive Order 13777, ‘Enforcing the Regulatory Reform Agenda,’ [(“RRA Order”)] EPA is seeking input on regulations that may be appropriate for repeal, replacement, or modification.” 82 Fed. Reg. 17,793 (Apr. 13, 2017).

Founded in 1996, Clean Air Task Force works to help safeguard against the worst impacts of climate change by catalyzing the rapid global development and deployment of low carbon energy and other climate-protecting technologies, through research and analysis and public advocacy leadership, and partnership with the private sector.

The Center for Biological Diversity is a non-profit organization with some 1.3 million members and online activists and offices throughout the United States. The Center's mission is to ensure the preservation, protection and restoration of biodiversity, native species, ecosystems, public lands and waters and public health. In furtherance of these goals, the Center's Climate Law Institute seeks to reduce U.S. greenhouse gas emissions and other air pollution to protect biological diversity, the environment, and human health and welfare. Specific objectives include securing protections for species threatened by global warming, ensuring compliance with applicable law in order to reduce greenhouse gas emissions and other air pollution, and educating and mobilizing the public on global warming and air quality issues. These comments are filed on behalf of our members and staff with a vital interest in reducing greenhouse gas and other air pollutants.

Clean Air Council is a non-profit environmental health organization headquartered at 135 South 19th Street, Suite 300, Philadelphia, Pennsylvania 19103, with more than 8,000 contributing members and 30,000 activist members in Pennsylvania. For 50 years, Clean Air Council has fought to improve the air quality across Pennsylvania. Clean Air Council works to protect everyone's right to a healthy environment.

Since 1970, Clean Wisconsin has been the voice for the environment, working for clean air, clean water and clean energy and to protect the places we all love. To achieve this, we work on a wide range of issues and in a number of venues to protect our natural resources and the health of all Wisconsinites, now and for generations to come.

Earthworks is a nonprofit organization dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

National Wildlife Federation is a voice for wildlife, dedicated to protecting wildlife and habitat and inspiring the future generation of conservationists.

The Natural Resources Council of Maine is Maine's leading nonprofit membership organization protecting, restoring, and conserving Maine's environment, now and for future generations. NRCM works statewide for clear air and water, healthy people and wildlife, protected forests, sustainable communities, and clean energy solutions and efficiency. NRCM harnesses the power of science, the law, and the voices of more than 20,000 supporters from across Maine and beyond.

The mission of the Ohio Environmental Council is to secure healthy air, land, and water for all who call Ohio home. We help individuals, communities, and businesses go green, save money,

and live healthier. Using legislative initiatives, legal action, scientific principles, and statewide partnerships, we secure a healthier environment for Ohio's families and communities. The Ohio Environmental Council is the state's most comprehensive, effective and respected environmental advocate for a healthier, more sustainable Ohio. Our experts work daily to restore, protect and strengthen the quality of life for families and communities—from the air we breathe and the water we drink to the food we eat and natural resources we enjoy.

PennFuture is a public interest membership organization dedicated to leading the transition to a clean energy economy in Pennsylvania and beyond. PennFuture strives to protect our air, water, and land, and to empower citizens to build sustainable communities for future generations.

I. Background

EPA seeks input on regulations that may be appropriate for repeal, replacement or modification in accordance with the RRA Order, assertedly to “alleviate unnecessary regulatory burdens on the American People.” Exec. Order 13777 at § 1. The RRA Order directs each agency head to appoint a regulatory reform officer (“RRO”). *Id.* at § 2. EPA Administrator Pruitt has appointed Samantha Dravis, formerly of the Republican Attorneys General Association and its affiliated Rule of Law Defense Fund, as EPA’s RRO to lead the Regulatory Reform Task Force. On March 24, 2017, Administrator Pruitt issued a memorandum announcing this appointment and calling on EPA offices to provide the Task Force with recommendations regarding specific rules that should be considered for repeal, replacement or modification by May 15, 2015.¹ The Federal Register notice, issued April 13, 2017, opens this request to the public, also with a deadline of May 15, 2017. 82 Fed. Reg. 17,293. In accordance with Section 3(d) of the RRA Order, the “Task Force shall attempt to identify regulations” that:

- Eliminate jobs, or inhibit job creation;
- Are outdated, unnecessary, or ineffective;
- Impose costs that exceed benefits;

¹ E. Scott Pruitt, *Memorandum re: Executive Order 13777, Enforcing the Regulatory Reform Agency* (Mar. 24, 2017), available at: https://www.epa.gov/sites/production/files/2017-04/documents/regulatory_reform_agenda.pdf.

- Create a serious inconsistency or otherwise interfere with regulatory reform initiative and policies;
- Rely in whole, or in part, on data, information or methods that are not publicly available or that are insufficiently transparent to meet the standard of reproducibility; or
- Derive from or implement Executive Orders or Presidential directives that have been subsequently rescinded or substantially modified.

Also relevant to this announcement is Executive Order 13771, “Reducing Regulations and Controlling Regulatory Costs.” 82 Fed. Reg. 9,339 (Feb. 3, 2017) (“CRC Order”),² which has as its asserted policy objective: “manag[ing] the costs associated with government imposition of private expenditures to comply with Federal regulations” by, unless prohibited by law, eliminating two regulations for every one regulation issued. *Id.* at §§ 1-2. The CRC order also directs “that the total incremental cost³ of all new regulations...shall be no greater than zero.” *Id.* at §2(b). The Order states that it does not affect the authority of the EPA Administrator and must be implemented consistent with applicable law. *Id.* at § 5.

Additionally, on March 28, 2017, the President issued Executive Order 13783, “Promoting Energy Independence and Economic Growth,” (“EIEG Order”). 82 Fed. Reg. 16,093 (Mar. 31, 2017). The EIEG Order calls on executive agencies to “review all existing regulations...that potentially burden the development or use of domestically produced energy resources, with particular attention to oil, natural gas, coal, and nuclear energy.” *Id.* at § 2(a). Within 120 days of the Order (July 26, 2017), the Administrator shall submit a draft report to the Office of Management and Budget providing “specific recommendations that, to the extent permitted by law, could alleviate or eliminate aspects of agency actions that burden domestic energy production.” *Id.* at § 2(d). The report shall be finalized by September 24, 2017. *Id.* at § 2(e). Section 3 of the EIEG Order purportedly rescinded various climate change-related presidential actions. Section 4 directs the EPA Administrator to review final carbon regulations for power plants for consistency with the policy set forth in the EIEG Order and determine whether to suspend, revise or withdraw the rules. Section 5 disbands the Interagency Working Group on Social Cost of Greenhouse Gases and “withdraws”

² A complaint seeking declaratory and injunctive relief with respect to Executive Order 13771 has been filed arguing that the Order “exceeds President Trump’s constitutional authority, violates his duty under the Take Care Clause of the Constitution, and directs federal agencies to engage in unlawful actions that will harm countless Americas.” Compl., at 3, *Pub. Citizen v. Trump*, No. 1:17-cv-00253 (D.D.C. Feb. 8, 2017).

³ Given that the purpose of the Order is to limit private expenditures, one assumes that section 2(b) is considering costs as to private companies, not costs imposed on the public from increased pollution hazards.

years of studies and policy on the proper accounting for the harms associated with greenhouse gases reverting the U.S. to a policy finalized fourteen years ago. Section 6 lifts a moratorium for coal leases on federal lands. Section 7 directs the EPA Administrator to review regulations associated with the oil and natural gas sector for consistency with the EIEG Order's policy and if appropriate suspend, revise or rescind the rules. Finally, the EIEG Order indicates that it does not affect the authority of the EPA Administrator and must be implemented consistent with applicable law. *Id.* at § 8.

II. Summary of Comments

Commenters find it impossible to submit comprehensive comments on the Task Force's overbroad and vague request for comments, especially during the minimal time allotted. Any revision or revocation to a regulation must proceed through a full notice-and-comment period for each individual change. To the extent that Commenters are able, we offer the following broad comments, and expand on each below:

- Regulations correct market failures and protect public health and the environment from bearing the costs and burdens of industrial externalities.
- Administrator Pruitt cannot comply with the Executive Orders, listed above, to the extent that they conflict with the congressionally-enacted environmental and procedural statutes he is charged with administering.
- Any changes to, or rescission of, regulations must be substantially justified, relying exclusively on the factors enumerated in the relevant statutes.
- Standard-setting must consider benefits, as well as costs. Exclusive focus on costs to the regulated industry is arbitrary, capricious and unlawful.
- Regulations result in significant benefits that outweigh their implementation costs. Appropriate regulation reduces the costly dangers associated with climate change and air pollution and spurs innovation and competitiveness, while having a minimal impact on overall jobs.

III. The Comment Period Must Be Extended

The present comment period, and the period between the close of comments and the Task Force's issuance of its final report is far too short for any meaningful consideration of the public's position on these actions. Section 3(e) of the RRA Order directs the Task Force to "seek input and

other assistance...from entities significantly affected by Federal regulations, including State, local, and tribal governments, small businesses, consumers, non-governmental organizations, and trade organization.” And while the RRA Order was signed on February 24th, the EPA Task Force’s announced comment period was not opened until 48 days later, on April 13th. Moreover, that comment period ends only a month later, May 15, 2017, coinciding with the EPA’s opportunity to provide comment to the Task Force. The Task Force is then directed to provide a report to Administrator Pruitt *eight* working days after the comment period is closed.

Additionally, to provide EPA with information that could be used in a meaningful way by the Agency as it develops the comments it submits to the Task Force on May 15th, Commenters and other stakeholders must submit comments well in advance of May 15th. The result is a comment period of only 20 days (April 13th-May 3rd), which further undermines the public’s involvement in this process.

This cramped timeframe seems deliberately intended to provide little or no real opportunity to comment on the vastly overbroad subject matter at hand. In that sense, it strongly suggests that the Agency in fact is not interested in “public comment” on these issues, but rather that it is a *pro forma* exercise, to cover for the fact that the Task Force and the Administrator have already determined the outcome of the process before it starts. The opportunity for meaningful comment requires the agency to consider comments received, 5 U.S.C. § 553(c). By comparison the deadlines announced here do not allow for any kind of meaningful consideration and give rise to the appearance of an “unalterably closed mind,” in violation of the Due Process Clause, *Ass’n of Nat’l Advertisers, Inc. v. FTC*, 627 F.2d 1151, 1170, 1174 (D.C. Cir. 1979).

As described in the next section, Congress vested Administrator Pruitt and the EPA, not the President, with the duty to implement the environmental statutes – and to protect public health and the environment. The President simply does not have the authority to override congressionally-enacted statutory duties through Executive fiat. Suspension, modification, revision or revocation of any existing regulation would require the Agency to comply with the notice and comment requirements of both the relevant environmental statutes and the Administrative Procedure Act. The restricted time frame for this ‘comment’ period violates those time periods and demonstrates the Agency’s lack of interest in meaningful comment.

Commenters request that the comment period be extended for 60 days, or failing that, at a minimum, we request that the deadline for the Task Force’s report be extended at least 30 days to

allow that all comments at least be reviewed.

IV. Regulations Correct Market Failures that Endanger Public Health and the Environment

In the 1970s Congress passed, and President Nixon signed, many bipartisan environmental statutes. The statutes were designed to correct market failures, where individual actors were failing to account for pollution and the effects that industry was imposing on public health and the environment.

...when it comes to environmental harms, innumerable externalities cause the magic of the marketplace to fail. Because environmental amenities, like air and water, tend to be open to enjoyment by all, when individuals make decisions that harm these amenities, the costs do not fall entirely on them. Accordingly, under the grim logic of the tragedy of the commons, as each individual pursues her self-interest, these unaccounted-for costs eventually lead to overexploitation of resources and over-production of pollution, to the detriment of all.

Amy Sinden, *The Tragedy of the Commons and the Myth of a Private Property Solution*, 78 U. COLO. L. REV. 533, 534-35 (2007) (citing Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243 (1968)).

Environmental statutes and their implementing regulations are promulgated to ensure that the costs of industrial and commercial activities are borne, at least in part, by those companies that profit from the activity, and not borne entirely by the public at large. Weakening, or eliminating regulations that achieve that cost-shifting objective results in economic windfalls to companies at the expense of public health and welfare – precisely what the congressionally-enacted statutes are meant to avoid. Therefore, the RRA’s entire premise is proscribed, and its expressed goal of “alleviat[ing] unnecessary regulatory burdens placed on the American people,” RRA Order § 1, is nonsensical: regulations are designed to *remove* the burdens – or externalities - which industry places on the American people.

V. Executive Order 13777 Cannot Evade Statutory Requirements

The President's authority to issue an executive order derives from his constitutional power to "take Care that the Laws be faithfully executed." U.S. Const., Art. II, § 3. However, presidential authority to issue such an executive order, “if any, must stem either from an act of Congress or from the Constitution itself.” *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 638 (1952) (Jackson, J.

concurring); *see also In re Surface Mining Regulation Litig.*, 627 F.2d 1346, 1357 (D.C. Cir. 1980) (“Executive orders without specific foundation in congressional action are not judicially enforceable.”)

While the President “may properly supervise and guide [the Administrator’s] construction of the statutes under which [he] act[s] in order to secure that unitary and uniform execution of the laws which Article II of the Constitution evidently contemplated in vesting general executive power in the President,” *Myers v. United States*, 272 U.S. 52, 135 (1926), “there may be duties so peculiarly and specifically committed to the discretion of a particular officer as to raise a question whether the President may overrule or revise the officer’s interpretation of his statutory duty in a particular instance,” *id.*

Congress specifically mandated the EPA Administrator to implement the environmental statutes. *See e.g.* Clean Water Act, 33 U.S.C. § 1251(d) (“the Administrator of the EPA...shall administer this chapter”); Clean Air Act, 42 U.S.C. §§ 7401, *et. seq.* (duties throughout the Clean Air Act indicate that “the Administrator shall...” perform them). While the RRA Order on its face asserts that it does nothing to “impair or otherwise affect the authority granted to an executive department or agency,” and concedes that implementation of the Order must be “consistent with applicable law,” RRA Order, §§ 6(a)(ii), 6(b), the deregulatory activity it mandates belies those statements.

Like the two Executive Orders that have been stayed as of this comment deadline because they likely exceed existing law, the RRA Order oversteps the President’s authority over the regulatory process.⁴ The Executive Order at issue in one of the cases claims to place new conditions on states receiving federal funds, in contravention of the Spending Clause, which delegates that authority to Congress, not the President. Order, at 3, *Santa Clara v. Trump*, No. 17-cv-00574-WHO (N.D. Cal. Apr. 25, 2017). There, the Government also conceded that the Executive Order could not change existing law, and to the extent that it purported to, was merely the “President’s use of the bully pulpit.” *Id.* at 16. Rejecting these claims, the Court upheld a nationwide preliminary injunction restricting the Government from taking any action consistent with the Order’s unlawful directives. *Id.* at 49.

⁴ *Washington v. Trump*, 847 F.3d 1151 (9th Cir. Feb. 9, 2017) (refusing to overturn a preliminary injunction of Executive Order 13769); Order, *Santa Clara v. Trump*, No. 17-cv-00574-WHO (N.D. Cal. Apr. 25, 2017) (enjoining Executive Order 13768).

And while an agency has the authority to change its regulatory direction, if properly justified, *Motor Vehicles Manufacturers Ass'n v. State Farm*, 463 U.S. 29, 42 (1983), Administrator Pruitt cannot exceed the authorities granted to him under the statutes he is compelled by Congress to execute. Nor may he violate the Administrative Procedures Act. Nothing in the Executive Order can legally excuse Administrator Pruitt from the constraints and obligations of these congressionally-enacted statutes. “[T]he Order cannot do more constitutionally than enforce existing law.” Order, at 2, *Santa Clara v. Trump*, No. 17-cv-00574-WHO (N.D. Cal. Apr. 25, 2017).

VI. In Making Any Regulatory Modification, EPA Must Rely on the Factors Enumerated in the Relevant Statutes and Provide Substantial Justification for the Change.

Regardless of changes in executive policies under different administrations, Congress charged each Administrator with protecting public health and the environment. *See, e.g.* 42 U.S.C. § 7401(b)(1) (declaring the purposes of the Clean Air Act as “to protect and enhance the quality of the Nation’s air resources so as to mote the public health and welfare and the productive capacity of its population”). Furthermore, the specific environmental statutory authorities under which the Administrator must act enumerate the relevant factors he must consider when promulgating, modifying, or revoking regulations. The list of policy considerations in the RRA and EIEG Orders (e.g., in the EIEG Order, considerations related to geopolitical security or the promotion of fossil fuels) cannot supersede or affect congressionally-enacted mandates, such as the protection of public health and welfare. It cannot be over-emphasized that, as the Administrator considers whether to revise existing rules, he is constrained by the statutes he must implement. In fact, agency action “would be arbitrary and capricious, and unlawful, if the agency has relied on factors which Congress has not intended it to consider.” *See, e.g., Motor Vehicles Manufacturers Ass'n v. State Farm*, 463 U.S. 29, 43 (1983) (arbitrary and capricious); *see also Massachusetts v. EPA*, 549 U.S. 497, 533-35 (2007) (refusing to defer to EPA when it declined to regulate greenhouse gases based on policy judgments divorced from the statute); *Util. Air Regulatory Grp. v. EPA*, 134 S.Ct. 2427, 2445 (2014) (holding that “[a]n agency has no power to ‘tailor’ legislation to bureaucratic policy goals by rewriting unambiguous statutory terms” – such actions are unlawful).

Congress intended pollution reduction, public health and environmental protection to be the pre-eminent factors under the environmental statutes. *See, e.g.*, Clean Water Act, 33 U.S.C. § 1251(a) (“objective...is to restore and maintain...the Nation’s waters”); Toxic Substances Control Act, 15 U.S.C. § 2601(b)(3) (“primary purpose of this chapter to assure that such innovation and commerce

in ... chemical substances and mixtures do not present an unreasonable risk of injury to health or the environment”); Clean Air Act, 42 U.S.C. § 7401(b)(1) (purpose “to protect and enhance the quality of the Nation’s air resources so as to mote the public health and welfare and the productive capacity of its population”). Agency action which conflicts with statutory purposes and commands is simply unlawful. *Massachusetts v. EPA*, 549 U.S. 497, 533-35 (2007).

In addition, regulations that have been promulgated after extensive study and public outreach produce significant reliance interests. “Revocation constitutes a reversal of the agency’s former views as to the proper course. A settled course of behavior embodies the agency’s informed judgment that, by pursuing that course, it will carry out the policies committed to it by Congress.” *State Farm*, 463 U.S. at 42. If an agency changes course, it must “provide a more detailed justification than would suffice for a new policy...when, for example, its new policy rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account. It would be arbitrary and capricious to ignore such matters.” *FCC v. Fox Television Stations*, 566 U.S. 502, 515-16 (2009) (internal citation omitted).

“An agency cannot simply disregard contrary or inconvenient factual determinations that it made in the past.” *Id.* at 537 (Kennedy, J., concurring); *see also* Jody Freeman and Adrian Vermeule, *Massachusetts v. EPA: From Politics to Expertise*, 2007 SUP. CT. REV. 51, 52 (2007) (explaining that courts have been increasingly willing to “override executive positions that they found untrustworthy, in the sense that executive expertise had been subordinated to politics”).

VII. Standard-setting Must Consider Benefits as well as Costs

As Justice Scalia held in 2015, “cost includes more than the expense of complying with regulations; any disadvantage could be termed a cost... for instance, harms that regulation might do to human health or the environment.” *Michigan v. EPA*, 135 S. Ct. 2699, 2707 (2015). “Consideration of cost reflects the understanding that reasonable regulation ordinarily requires paying attention to the advantages *and* the disadvantages of agency decisions.” *Id.* (emphasis original). Considering costs and benefits however, does not require a formal cost-benefit analysis. *Id.* at 2711.

Benefits of regulation necessarily include the public health and environmental benefits associated with the pollution reduction required by the environmental statute. For the Clean Air Act, these include the public health and environmental benefits associated with reducing air pollution and avoiding the worst impacts of climate change. Particularly where benefits exceed costs, rescinding or modifying them based only on an accounting of costs is arbitrary, capricious and unlawful.

a. *The Dangers of Climate Change and Air Pollution Result in a Significant– Social Cost to Greenhouse Gas Emissions*

As the Supreme Court recognized in *Massachusetts*,⁵ overwhelming scientific consensus supports concern that the climate is changing rapidly and problematically, due to human activity, primarily the burning of fossil fuels.⁶ As 377 members of the National Academy of Sciences, including 30 Nobel laureates recently wrote:

Human-caused climate change is not a belief, a hoax, or a conspiracy. It is a physical reality. Fossil fuels powered the Industrial Revolution. But the burning of oil, coal, and gas also caused most of the historical increase in atmospheric levels of heat-trapping greenhouse gases. This increase in greenhouse gases is changing Earth’s climate.... We are certain beyond a reasonable doubt...that the problem of human-caused climate change is real, serious, and immediate, and that this problem poses significant risks: to our ability to thrive and build a better future, to national security, to human health and food production, and to the interconnected web of living systems.

Open Letter Regarding Climate Change from Concerned Members of the National Academy of Sciences, (Sept. 20, 2016), <http://responsiblescientists.org/>.

The potential for damage to public health, wildlife, property, and general welfare due to climactic changes and the resulting environmental impacts is enormous. And these changes are happening now – not in some future we cannot foresee. For example, in the northern hemisphere, 1983-2012 was the warmest 30-year period of the last 1400 years.⁷ Climate change is currently having consequences for human health, wildlife, infrastructure and entire sectors of our economy.⁸ Human health is suffering from, among other things, heat stress, respiratory stress, the spread of water-

⁵ 549 U.S. at 508-11 (summarizing climate science at the time); *see also id.* at 521 (“The harms associated with climate change are serious and well recognized”).

⁶ *See* U.N. IPCC, *Climate Change 2014, Synthesis Report: Summary for Policymakers*, http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf; and U.S. Global Climate Change Research Program, “Climate Change Impacts in the United States,” (May 2014, rev’d Oct. 2014) <http://nca2014.globalchange.gov/downloads>.

⁷ *Climate Change 2014, Synthesis Report: Summary for Policymakers*, at 2.

⁸ *See* U.S. Global Climate Change Research Program, “Climate Change Impacts in the United States,” (May 2014, rev’d Oct. 2014) <http://nca2014.globalchange.gov/downloads> (outlining the devastating economic impacts of climate change).

borne diseases and increased fatalities from extreme weather⁹ events. The U.S. - and global - economy is also being dramatically affected. For example, extreme weather and drought undermines our agricultural industry; increasing temperatures are decimating the ski industry; and ocean acidification and extreme weather patterns are disrupting our fishing industry. Accelerating sea level rise is already, causing property damage. For example, “sunny day” flooding in the streets of Miami, Norfolk and other American cities affects transportation and other infrastructure.¹⁰ Climate change is even exacerbating insurgency and terrorism. A recent study, adds to the findings of the U.S. Department of Defense,¹¹ and concludes that non-state armed groups are exploiting natural resource scarcity to their advantage.¹²

Climate change is occurring; its effects are severe and are expected to get worse. The lack of absolute certainty as to the timing or severity of the expected damage is not a justification for inaction. The precautionary principle underlying U.S. environmental statutes directs that, in the face of extraordinary risk, it is irrational to fail to act because the extent of the risk and the resulting damage has not been precisely proven.¹³ For example, the Clean Air Act is based on and embodies this principle, requiring “precautionary, forward-looking judgment” to “prevent a reasonably anticipated endangerment from maturing into a concrete harm.” *Coal. for Responsible Regulation v. EPA*, 684 F.3d 102, 119 (D.C. Cir. 2012).

⁹ Noah S. Diffenbaugh, *et al.*, *Quantifying the Influence of Global Warming on Unprecedented Extreme Climate Events*, PNAS (2017), available at: <http://www.pnas.org/content/early/2017/04/18/1618082114> (finding that anthropogenic global warming has a substantial impact on extreme temperature and precipitation events).

¹⁰ Jonathan Corum, “A Sharp Increase in ‘Sunny Day’ Flooding,” N.Y. TIMES (Sept. 3, 2016), available at: <https://www.nytimes.com/interactive/2016/09/04/science/global-warming-increases-nuisance-flooding.html>.

¹¹ DOD, *National Security Implications of Climate-Related Risks and a Changing Climate*, (July 23, 2015), available at: <http://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery>; see also The Climate and Security Advisory Group, *Briefing Book for a New Administration: Recommended Policies and Practices for Addressing the Security Risks of a Changing Climate*, (Sept. 14, 2016), available at: <https://climateandsecurity.org/briefingbook/>.

¹² See Katharina Nett & Lukas Ruttinger, *Insurgency, Terrorism, and Organized Crime in a Warming Climate: Analyzing the Links Between Climate Change and Non-State Armed Groups* (Oct. 2016), available at: <https://www.adelphi.de/en/publication/insurgency-terrorism-and-organised-crime-warming-climate>.

¹³ See Daniel Farber, *Coping with Uncertainty: Cost-Benefit Analysis, the Precautionary Principle, and Climate Change*, 90 WASH. L. REV. 1659, 1671-89 (Dec. 2015).

The Supreme Court has held that greenhouse gases are “air pollutants” under the Clean Air Act. *Massachusetts v. EPA*, 549 U.S. 497 (2007). And in 2009, EPA’s determination that greenhouse gas pollution endangers public health and welfare was upheld. *Coal. for Responsible Regulation v. EPA*, 684 F.3d 102 (D.C. Cir. 2012), *cert. denied* 134 S. Ct. 468 (2013). Courts have found that agencies’ failure to monetize benefits from reducing greenhouse gas emissions - or put differently, the social cost of the emissions themselves - is arbitrary and capricious. *See e.g., Ctr. For Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1202-03 (9th Cir. 2008).

The EIEG Order directs agencies to refer to Circular A-4 in determining the social cost of greenhouse gases for regulations. Exec. Order 13783 § 5(c). Circular A-4 recommends providing estimates of net benefits using discount rates of 3 and 7 percent. OMB, Circular A-4, at 33 (Sept. 17, 2003). However, in some cases, a discount rate outside of this range may be appropriate. *Id.* This is especially so when the risk of harm lies with future generations:

Special ethical considerations arise when comparing benefits and costs across generations. Although most people demonstrate time preference in their own consumption behavior, it may not be appropriate for society to demonstrate a similar preference when deciding between the well-being of current and future generations. Future citizens who are affected by such choices cannot take part in making them, and today’s society must act with some consideration of their interest.

Circular A-4, at 35. Circular A-4 has been widely criticized for including a 7 percent discount rate at all, systematically undervaluing regulatory benefits, and being developed through a flawed peer review process.¹⁴

The most recent social cost of carbon estimated by the Interagency Working Group on Social Cost of Greenhouse Gases was \$39 (2007 USD) per metric ton of carbon,¹⁵ and in the face of currently occurring or imminent dramatic climate change and dangerous tipping points, many argued that the 3 percent discount rate underlying that value was too high.¹⁶

¹⁴ Melissa J. Luttrell, *The Social Cost of Inertia: How Cost-Benefit Incoherence Threatens to Derail U.S. Climate Policy*, 25 DUKE ENVTL. & POL’Y 131, 153-65 (2014).

¹⁵ Interagency Working Group on Social Cost of Greenhouse Gases, Technical Support Document, *Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866*, (Aug. 2016), available at: https://www.epa.gov/sites/production/files/2016-12/documents/sc_co2_tsd_august_2016.pdf.

¹⁶ *See e.g.* Comments of Clean Air Task Force on Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order 12866, Doc. No. OMB-2013-0007-0097 (Feb. 26, 2014) (advocating for a discount number “much lower” than 3%); Comments of Environmental Defense Fund, *et al.*, on Technical Update of the Social Cost of Carbon for Regulatory Impact Analysis under Executive Order

Additionally, because greenhouse gas emissions have global consequences, it is reasonable to analyze the cost of emissions on a global scale. *See Zero Zone, Inc. v. DOE*, 832 F.3d 654, 679 (7th Cir. 2016) (upholding agency decision to compare global benefits to national costs). Further, including the international implications of our greenhouse gas emissions provides an incentive to other nations also to value global benefits, and acknowledges the spillover effects climate change in other countries can have here.¹⁷

EPA must refer to the most updated science¹⁸ and methodologies for estimating the social costs of greenhouse gases available when reviewing existing regulations, which can be found in the National Academy of Sciences recent and extensive report: VALUING CLIMATE DAMAGES.¹⁹

b. The Benefits of Clean Air Act Regulations Exceed their Costs

EPA's own decades-long analyses demonstrate that the Clean Air Act results in public health, environmental and economic benefits which far exceed implementation costs. EPA found that allowing existing Clean Air Act regulations to take full effect, while continuing to abide by the Act's requirements and deadlines, results in \$2 trillion in annual benefits to U.S. public health and

12866, Doc. No. OMB-2013-0007-0085 (Feb. 26, 2014) (recommending a 3% discount rate for the first five years, and declining thereafter); Melissa J. Luttrell, *The Social Cost of Inertia: How Cost-Benefit Incoherence Threatens to Derail U.S. Climate Policy*, 25 DUKE ENVTL. & POL'Y 131, 170-82 (2014) (recommending a discount rate between 1-3% for climate impacts, and one that declines over time); Johnathan S. Masur & Eric A. Posner, *Climate Regulations and the Limits of Cost-Benefit Analysis*, 99 CALIF. L. REV. 1557, 1561 (2011) (finding many errors led to underestimation).

¹⁷ See Peter Howard & Jason Schwartz, *Think Global: International Reciprocity as Justification for a Global Social Cost of Carbon*, 42 COLUM. J. ENVTL. L. 203 (2017).

¹⁸ See, e.g., *Massachusetts v. EPA*, 549 U.S. 497, 532-33 (2007) (holding decision not to regulate was arbitrary and capricious because it was not based on agency expertise and scientific evidence); See also *Sierra Club v. EPA*, 167 F.3d 658, 662 (D.C. Cir. 1999) (remanding standard because the scientific evidence underlying it "bears no rational relationship to the reality it purports to represent"); *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998) (same).

¹⁹ National Academies of Science, Engineering and Medicine, *Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide*, (2017), available at: <https://www.nap.edu/catalog/24651/valuing-climate-damages-updating-estimation-of-the-social-cost-of>.

welfare by 2020.²⁰ For example, Clean Air Act regulations will prevent 230,000 cases of premature mortality in 2020, among other benefits.²¹

The American Lung Association recently released its 2017 “State of the Air” Report incorporating 2013-2015 data and covering the past eighteen years. This year’s report indicates continued improvement in air quality “in ozone and year-round particle pollution, but an unrelenting increase in dangerous spikes in particle pollution.” Am. Lung Ass’n, *State of the Air: 2017*, at 4 (2017) <http://www.lung.org/assets/documents/healthy-air/state-of-the-air/state-of-the-air-2017.pdf>. Nearly forty percent of Americans still “live in counties that have unhealthful levels of either ozone or particle pollution.” *Id.* These results reflect the Clean Air Act regulations already in effect – the threat of weakened or revoked rules will only serve to worsen these statistics. The report also finds that despite reduction in pollution in many places, climate change is leading to more unhealthy air quality days in cities and “making it harder to protect human health.” *Id.* at 5. The report warns that “[a]s climate change continues, cleaning up [particulate and ozone pollution] will become ever more challenging.” *Id.* at 6.

In fact, a recent EPA report “estimate[s] to what degree climate change impacts and damages to multiple U.S. sectors (e.g., human health, infrastructure, and water resources) may be avoided or reduced in a future with significant global action to reduce GHG emissions, compared to a future in which current emissions continue to grow.”²² The results are striking, and summarized in the table below. All results are in 2100 unless indicated otherwise.

²⁰ U.S. EPA, *The Benefits and Costs of the Clean Air Act from 1990 – 2020*, (Apr. 2011), available at: <https://www.epa.gov/clean-air-act-overview/benefits-and-costs-clean-air-act-1990-2020-report-documents-and-graphics>.

²¹ *Id.*

²² U.S. EPA, *Climate Change in the United States: Benefits of Global Action*, at 4 (June 2015), available at: <https://www.epa.gov/sites/production/files/2015-06/documents/cirareport.pdf>. “Significant global action” does not advocate for a particular set of mitigation measures, merely models a future where action has been taken to meet a goal of limiting average temperature to approximately 2°C above pre-industrial levels. This is consistent with international agreements on greenhouse gas emissions.

HEALTH
Air Quality: An estimated 57,000 fewer deaths from poor air quality
Extreme Temperatures: In 49 U.S. cities, 12,000 fewer deaths from extreme temperatures
Labor: Approximately \$110 billion in avoided damages from lost labor due to extreme temperatures
Water Quality: \$2.6-\$3.0 billion in avoided damages due to poor water quality
ELECTRICITY
Electricity Demand: An avoided increase in electricity demand of 1.1-4.0% in 2050
Electricity Supply: \$10-\$34 billion in savings on power system costs in 2050
INFRASTRUCTURE
Bridges: 720-2,200 fewer bridges made structurally vulnerable
Roads: \$4.2-\$7.4 billion in avoided adaptation costs
Urban Drainage: In 50 U.S. cities, \$50 million - \$6.4 billion in avoided adaptation costs
Coastal Property: \$3.1 billion in avoided damages and adaptation costs from sea level rise and storm surge
WATER RESOURCES
Drought: 40-59% fewer severe and extreme droughts
Supply and Demand: \$11-180 billion in avoided damages from water shortages in key economic sectors
AGRICULTURE AND FORESTRY
Agriculture: \$6.6-\$11 billion in avoided damages
Forestry: \$520 million - \$1.5 billion in avoided damages
ECOSYSTEMS
Shellfish: Avoided loss of 34% of the U.S. oyster supply, 37% of scallops, and 29% of clams
Wildfire: 6-7.9 million fewer acres burned by wildfire
Freshwater Fish: 230,000 – 360,000 acres of cold water fish habitat preserved
Coral Reefs: Avoided loss of 35% of current Hawaiian coral, with recreational value of \$1.1 billion

In particular, each of EPA’s greenhouse gas regulations will yield benefits that exceed its costs, and the Agency’s approach intentionally overestimates costs and underestimates benefits. *See, e.g.,* EPA, Regulatory Impact Analysis for the Clean Power Plan, (Aug. 2015) (finding that in 2030

the guidelines result up to \$93 billion per year in climate and health benefits at a cost of \$7.3 – 8.8 billion); EPA, Regulatory Impact Analysis of the Final Oil and Natural Gas Sector: Emission Standards for New, Reconstructed, and Modified Source, (May 2016) (finding that in 2025 the standards result in up to \$1.8 million per year in climate and health benefits at a cost of \$520 million).

The Agency “cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards.” *Ctr. For Biological Diversity v. Nat’l Highway Traffic Safety Admin.*, 538 F.3d 1172, 1198 (9th Cir. 2008).

c. Environmental regulations have minimal impact on overall jobs

While some sections of the Clean Air Act require the agency to consider costs, including potentially the regulation’s net effect on employment (jobs created as well as jobs lost or redirected), that does not permit the Agency to “focus disproportionately on a single factor like” jobs.²³ Nor does a general directive or understanding that costs must be “considered” translate to a requirement for a fixed and rigid cost-benefit threshold for a rule’s reasonableness or lawfulness. *See Michigan v. EPA*, 135 S.Ct. 2699, 2710 (2015). Regardless, study after study concludes that environmental regulations have minimal impact on net jobs, and that any jobs impacts are dwarfed by the public benefits and compliance costs associated with regulation.²⁴

²³ Institute for Policy Integrity, *Does Environmental Regulation Kill or Create Jobs?*, at 3 (Feb. 2017), available at: http://policyintegrity.org/files/media/Jobs_and_Regulation_Factsheet.pdf [hereinafter “IPI Fact Sheet”]. *See, e.g.*, 42. U.S.C. § 7411(a)(1) (defining standard of performance as the best system of emission reduction “taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements that the Administrator determines has been adequately demonstrated”)

²⁴ *See* Environmental Integrity Project, *Don’t Believe the “Job-Killer” Hype: Decades of Economic Research Show that Environmental Regulations are Good for the Economy*, at 1 (Jan. 16, 2017), available at: <https://www.environmentalintegrity.org/wp-content/uploads/2017/01/Jobs-and-environment-report.pdf> [hereinafter “EIP Report”] (citing *e.g.*, Eban Goodstein, *THE TRADE-OFF MYTH: FACT AND FICTION ABOUT JOBS AND THE ENVIRONMENT*, Island Press, Washington D.C. (1999); I. Shapiro & J. Irons, *Regulation, Employment, and the Economy*, Economic Policy Institute Briefing Paper #305, at 21 - 25 (Apr. 2011); Cary Coglianese *et al.*, eds., *DOES REGULATION KILL JOBS?*, University of Pennsylvania Press, Philadelphia PA (2013)); *see also* IPI Fact Sheet; and Marc A.C. Hafstead & Roberton C. Williams III, *Unemployment and Environmental Regulation in General Equilibrium*, (May 2016), available at: <http://www.rff.org/files/document/file/RFF-DP-15-11.pdf>.

The purpose of the Clean Air Act is the protection and enhancement of public health and welfare, and improving the productive capacity of the population. *See* 42 U.S.C. § 7401(b)(1). A regulation aimed at enhancing public health and welfare could have the effect of shifting some jobs from a more polluting sector to a less polluting sector. *See* IPI Report, at 1. But the focus of the regulation must be on overall productive capacity of the population, specifically the public's health and welfare as those factors contribute to productive capacity. And deregulatory efforts must also be evaluated in this way.

Moreover, no amount of regulatory rollback will revive the crumbling coal or coal-fired utility industries, which have been in decline due to market factors such as falling electricity demand, increased natural gas production and the declining costs of renewable energy. *See generally*, Trevor Houser, *et al.*, Columbia Center on Global Energy Policy, *Can Coal Make a Comeback?*, (Apr. 2017), *available at*: <http://energypolicy.columbia.edu/publications/report/can-coal-make-comeback> (concluding that the Presidents “efforts to roll back environmental regulations will not materially improve economic conditions in America’s coal communities”). The shift from jobs in the coal, oil and gas industries to jobs in low carbon emission generation and energy efficiency is well underway. DOE, *U.S. Energy and Employment Report*, at 21-22 (Jan. 2017), *available at*: <https://energy.gov/downloads/2017-us-energy-and-employment-report>. This transition “has resulted in employment *gains* across Electric Power Generation technologies.” *Id.* at 22 (emphasis added). In 2016, 1.1 million employees nationwide worked in coal, oil and gas, while nearly the same number – 800,000 – worked in renewables, nuclear and natural gas. *Id.* at 8. Currently, “2.2 million Americans are employed, in whole or in part, in the design, installation, and manufacture of Energy Efficiency products and services.” *Id.* “Energy efficiency employers project the highest growth rate over the next 12 months” at nine percent. *Id.* at 9.

d. Regulations spur innovation

Throughout the Clean Air Act “there is a philosophy of encouragement of technology development. It is an encouragement to induce, to stimulate, and to augment the innovative character of industry in reaching for more effective, less-costly systems to control air pollution.” *Sierra Club v. Costle*, 657 F.2d 298, 347, n. 174 (citing S. Rep. No. 95-127, 95th Cong., 1st Sess., at 171 (1977)). “[P]ollution is often a waste of resources and...a reduction in pollution may lead to an

improvement in the productivity with which resources are used.”²⁵ Clean Air Act regulations therefore prompt cost-effective innovation that results in efficiency and competitiveness gains that offset costs of regulatory compliance.²⁶ Corporations do not always make optimal decisions due to imperfect information or organizational or market failures.²⁷ Organizational management failures include motivations other than profit maximization, risk aversion, resistance to change, or present bias.²⁸ Well-designed regulation leads to innovation and enhances business performance.

We look forward to working with EPA to ensure that the significant benefits achieved through existing environmental regulation – including, but not limited to, current air quality and climate regulations on heavily polluting industries – are retained and enhanced. Thank you for the opportunity to comment.

Respectfully submitted,



James P. Duffy, Associate Attorney
Clean Air Task Force
(617) 624-0234, ext. 159
jduffy@catf.us

Ann Brewster Weeks, Senior Counsel and Legal Director
Clean Air Task Force

²⁵ Stefan Ambec, *et al.*, *The Porter Hypothesis at 20: Can Environmental regulation Enhance Innovation and Competitiveness?*, (Jan. 2011), available at: <http://www.rff.org/files/sharepoint/WorkImages/Download/RFF-DP-11-01.pdf> (citing Michael E. Porter & Claas van der Linde, *Toward a New Conception of the Environmental-Competitiveness Relationship*, 9 J. OF ECON. PERSPECTIVES 97, 98 (1995).

²⁶ See Porter (1995); see also Michael E. Porter, ON COMPETITION, Boston, Harvard Business School Publishing (2008); see also *The Porter Hypothesis at 20*.

²⁷ *The Porter Hypothesis at 20*, at 4.

²⁸ *Id.* at 5.

Vera P. Pardee, Senior Counsel, Supervising
Attorney

Center for Biological Diversity

1212 Broadway, Suite 800
Oakland, CA 94612
(415) 632-5317

Joseph Otis Minott, Esq.,
Executive Director & Chief
Counsel

Clean Air Council

135 South 19th Street, Suite 300,
Philadelphia, Pennsylvania 19103
(215) 567-4004

Keith Reopelle, Senior Policy Director

Clean Wisconsin

634 W. Main Street, Suite 300
Madison, WI 53703
(608) 251-7020 x 11

Lauren Pagel, Policy Director

Earthworks

1612 K Street, NW, Suite 904
Washington, DC 20006
(202) 288-1872

Jim Murphy, Senior Counsel

National Wildlife Federation

PO Box 1583
Merrifield, VA 22116
(800) 822-9919

Pete Didisheim, Advocacy Director

Natural Resources Council of Maine

3 Wade Street
Augusta, ME 04330
(207) 622-3101

Trent Dougherty, General Counsel

Ohio Environmental Council

1145 Chesapeake Avenue, Suite I
Columbus, OH 43212
(614) 487-5823

Larry Schweiger, President

PennFuture

610 N. Third Street
Harrisburg, PA 17101-113
(717) 214-7924