

August 9, 2018

Acting Administrator Andrew Wheeler  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460  
*Attention:* Docket ID No. EPA–HQ–OA–2018–0107

Re: *Advance Notice of Proposed Rulemaking on Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process*

Dear Acting Administrator Wheeler:

The Northeast States for Coordinated Air Use Management (NESCAUM) offer the following comments on the U.S. Environmental Protection Agency’s (EPA’s) Advance Notice of Proposed Rulemaking (ANPRM), published in the Federal Register June 13, 2018 and entitled “Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process” (83 FR 27524-27528). NESCAUM is the regional association of air pollution control agencies representing Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.<sup>1</sup> It is our position that cost-benefit analysis can provide important supplemental information in developing air quality rules if appropriately done in recognition of the often asymmetric availability of information on monetized benefits relative to costs, and the purpose of the Clean Air Act to protect against a broad set of harms to public health and welfare.

1. EPA should provide guidance and not a rule on the use of cost-benefit analysis in rulemakings

Under the Clean Air Act, Congress charged EPA “to protect and enhance the quality of the Nation’s air resources so as to promote the public health and welfare.”<sup>2</sup> In fulfilling its mission, EPA should avoid an overly constrained “bean counting” exercise that turns an analysis of benefits and costs into a proscriptive exercise that undermines the purpose of the Act. A “one size fits all” approach would not be dispositive of EPA’s mission to protect public health and the environment.

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<sup>1</sup> These comments reflect the majority view of NESCAUM members. Individual member states may hold some views different from the NESCAUM states’ majority consensus.

<sup>2</sup> 42 U.S.C. §7401(b)(1) (1990).

As stated by Congress in adopting the 1977 Clean Air Act, “[T]he Clean Air Act is the comprehensive vehicle for protection of the Nation’s health from air pollution.”<sup>3</sup> The Act broadly defines “air pollutant” to mean:<sup>4</sup>

[A]ny air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air. Such term includes any precursors to the formation of any air pollutant, to the extent the Administrator has identified such precursor or precursors for the particular purpose for which the term “air pollutant” is used.

The broad coverage of the Act includes criteria air pollutants, hazardous air pollutants (HAPs), radioactive pollutants, visibility impairing pollutants, pollutants contributing to acid deposition, and ozone depleting substances along with their substitutes, among others. The Supreme Court has also held that “the Clean Air Act’s capacious definition of ‘air pollutant’” includes greenhouse gases.<sup>5</sup>

The types of impacts Congress intended the Clean Air Act to cover are also similarly broad. Along with public health harms, the Clean Air Act takes on expansive view on protection of public welfare:<sup>6</sup>

All language referring to effects on welfare includes, but is not limited to, effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effects on economic values and on personal comfort and well-being, whether caused by transformation, conversion, or combination with other air pollutants.

In addressing the Clean Air Act’s scope, we recognize that complete information is rarely, if ever, available on the broad suite of benefits and costs for regulatory efforts. In addition, the best available methods and information for performing of cost-benefit analysis evolve over time as new science and improved methodologies are developed. The Office of Management and Budget (OMB) notes that:

Insufficient empirical information and data is a continuing challenge to agencies when assessing the likely effects of regulation. In some cases, the quantification of various effects may be speculative and may not be complete. For example, the value of particular categories of benefits (such as protection of homeland security or personal privacy) may be sizable but monetization can present significant challenges (at least, with currently-available data and methods). Careful consideration of costs and benefits is best understood as a pragmatic way of providing insights regarding the prospects for regulations to improve social welfare.<sup>7</sup>

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<sup>3</sup> House Report 95-294, at 42.

<sup>4</sup> 42 U.S.C. §7602(g) (2013).

<sup>5</sup> *Massachusetts v. EPA*, 549 US 497 (2007).

<sup>6</sup> 42 U.S.C. §7602(h) (2013).

<sup>7</sup> Office of Management and Budget (OMB), *2017 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act*, 2017, p. 3.

In this light, “consistency” in cost-benefit analysis is not necessarily a useful or constructive exercise if it leads to a regulatory-proscribed *pro forma* cost-benefit approach. Guidance, rather than rule, can provide a pragmatic path with the needed flexibility to adapt the analysis to the specific circumstances of a pollutant and its harms, and allow for approaches that can change to reflect new science and methods as warranted.

2. EPA should clearly address the risks of over-emphasizing private costs at the expense of public benefits.

Available information on monetized benefits and costs is typically asymmetrical. While the regulated community has incentive and resources to estimate compliance costs (and, as noted below, typically overestimates costs), it has no such incentive to monetize public benefits that it does not earn a return on. While government can help fill this information imbalance, it often lacks the resources to do so. Furthermore, benefits that accrue over long time periods or are widely disbursed and difficult to directly link to a unique causal factor at a specific point in time may be overly discounted or completely ignored.

The OMB in its 2003 Circular A-4 noted that “When important benefits and costs cannot be expressed in monetary units, [cost-benefit analysis] is less useful, and it can even be misleading, because the calculation of net benefits in such cases does not provide a full evaluation of all relevant benefits and costs.”<sup>8</sup> The rulemaking for the Utility Mercury and Air Toxics Standards (MATS) is an example of the dangers of rote and rigid approaches in cost-benefit analysis. In its proposed supplemental finding on MATS costs, EPA acknowledged that its ability to quantify monetized benefits was constrained by the narrow scope of available information in the scientific literature.<sup>9</sup> Therefore, EPA only monetized benefits of mercury reductions for avoided IQ loss among freshwater recreational anglers and their families.<sup>9,10</sup> At the same time, the Agency recognized a number of important benefits from reducing power plant mercury emissions that it could not quantify, which included:<sup>9</sup>

- (1) benefits from reducing adverse health effects on brain and nervous system development beyond IQ loss;
- (2) benefits for consumers of commercial (store-bought) fish (*i.e.*, the largest pathway to mercury exposure in the U.S.);
- (3) benefits for consumers of self-caught fish from oceans, estuaries or large lakes such as the Great Lakes;
- (4) benefits for the populations most affected by mercury emissions (*e.g.*, children of women who consume subsistence-level amounts of fish during pregnancy);
- (5) benefits to children exposed to mercury after birth; and
- (6) environmental benefits from reducing adverse effects on birds and mammals that consume fish.

While EPA clearly recognized these as unmonetized but real benefits of MATS, critics of the rule focused solely on that portion that EPA was able to monetize in comparing to costs. EPA needs to continue to emphasize in any guidance on performing cost-benefit analysis that

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<sup>8</sup> Office of Management and Budget, *Circular A-4, Subject: Regulatory Analysis* (September 17, 2003).

<sup>9</sup> 80 Fed. Reg. 75025 (December 1, 2015), at 75040.

<sup>10</sup> U.S. EPA, *Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards*, EPA-452/R-11-011 (December 2011), Chapter 4.

unmonetized benefits are real and form an important and substantial basis for protecting public health and the environment through rulemaking.

In addition to the dangers of discounting or ignoring difficult to monetize health and environmental benefits, retrospective analyses of Clean Air Act regulations find that they have consistently overestimated costs of compliance.<sup>11</sup> NESCAUM's retrospective review in 2000 of several air pollution programs found a repeated pattern of high EPA cost estimates and much higher industry cost projections (often by a factor of two or more) as rules were promulgated, with lower actual compliance costs once the programs were implemented.<sup>12</sup> NESCAUM identified several common factors that contributed to the lower actual costs but are difficult to forecast in advance, such as unforeseen technology innovation and lower fuel costs. Innovation is difficult to predict because by its very nature, it would require foresight to predict successful technology or other compliance advances that remain essentially unknown until after a regulation takes effect.

3. Accounting for co-benefits is a standard and important part of any cost-benefit analysis.

EPA should continue including consideration of co-benefits in cost-benefit analyses during rulemakings. As stated by OMB, "The consideration of co-benefits, including the co-benefits associated with reduction of particulate matter, is consistent with standard accounting practices and has long been required under OMB Circular A-4."<sup>13</sup>

In accounting for reductions in criteria pollutants as co-benefits of rules even in areas that already meet the NAAQS, EPA has noted in the past that the Clean Air Act does not require establishing air quality standards at a zero-risk level or at background concentrations, but rather at a level that reduces risk sufficiently to be protective of public health "...with an adequate margin of safety."<sup>14</sup> An "adequate margin" is not the same as an "absolute margin," and EPA has acknowledged that there can be remaining risk of public and environmental harm in setting NAAQS for criteria pollutants even in regions where the NAAQS is attained. Particulate matter as well as ozone are especially important examples, as recent health research continues to show the lack of a "no health impacts" threshold from exposure to these pollutants.<sup>15,16</sup>

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<sup>11</sup> Chestnut, L.G. and D.M. Mills. "A fresh look at the benefits and costs of the US acid rain program." *J. Environ. Mgmt.* 77: 252–266 (2005), doi: 10.1016/j.jenvman.2005.05.014; Small Business Majority and The Main Street Alliance. *The Clean Air Act's Economic Benefits: Past, Present and Future* (October 2010), <https://grist.files.wordpress.com/2010/10/benefits-of-caa-literature-review-final-10-04-2010.pdf>; Harrington, W., R. Morgenstern, and P. Nelson. *How Accurate Are Regulatory Cost Estimates?*, Resources for the Future (March 5, 2010), [https://grist.files.wordpress.com/2010/10/harringtonmorgensternnelson\\_regulatory\\_estimates.pdf](https://grist.files.wordpress.com/2010/10/harringtonmorgensternnelson_regulatory_estimates.pdf).

<sup>12</sup> NESCAUM, *Environmental Regulation and Technology Innovation: Controlling Mercury Emissions from Coal-Fired Boilers* (September 2000), [http://www.nescaum.org/documents/rpt000906mercury\\_innovative-technology.pdf](http://www.nescaum.org/documents/rpt000906mercury_innovative-technology.pdf).

<sup>13</sup> Office of Management and Budget (OMB), *2017 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Agency Compliance with the Unfunded Mandates Reform Act*, 2017, p. 13.

<sup>14</sup> U.S. EPA. *Primary National Ambient Air Quality Standard for Sulfur Dioxide; Final Rule*. 40 CFR Parts 50, 53, and 58 (2010).

<sup>15</sup> Di, Q., et al. "Air pollution and mortality in the Medicare population." *New England Journal of Medicine* 376: 2513-2522 (2017), doi: 10.1056/NEJMoA1702747.

4. Benefits of Clean Air Act regulations should include an accounting of those occurring outside the United States.

A restrictive view of regulatory benefits confined to only within the borders of the United States is counter to congressional intent in the Clean Air Act. As noted in section 1 above, the Clean Air Act takes a broad view of air pollutant impacts with its expansive language defining “welfare” effects to specifically include considerations such as climate, which has global impacts. To consider only domestic benefits also invites the potential for reciprocity in an adverse sense, providing a similar rationale for other countries not to reduce their air pollutant emissions where the United States would be a beneficiary. Examples include greenhouse gases, mercury, PM2.5, and ozone, which can have global impacts or be transported long distances into this country.

5. Inconsistency and lack of transparency in cost-benefit analyses used in rulemakings

In the ANPRM, “EPA requests more information about the nature and extent of the concerns relating to possible inconsistency and lack of transparency in considering costs and benefits in the rulemaking process.”<sup>17</sup> For reasons outlined earlier, “inconsistency” in and of itself is not indicative of shortcomings among different cost-benefit analyses looking at different pollutants, different sets of harms, and different information resources. With regard to “lack of transparency,” while we do not necessarily always agree with its results and approaches, EPA historically has provided detailed and transparent regulatory impact assessments as part of its rulemakings. It has only been in the recent past that cost-benefit analysis has become more opaque or completely non-existent. Two specific examples are the lack of any meaningful cost-benefit analyses to underpin EPA’s proposed *Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits*,<sup>18</sup> and its proposed rule on *Strengthening Transparency in Regulatory Science*.<sup>19</sup> We recommend EPA return to past practices in providing robust and detailed regulatory impact assessments for its regulatory proposals.

6. Summary

In summary, cost-benefit analysis is an important part of the regulatory process; however, an overly constrained approach that lacks flexibility to account for differing levels of information will undermine its utility. Therefore, EPA should seek to provide guidance, not rules, in the use of cost-benefit analysis, with the guidance encompassing approaches that appropriately account for the often asymmetrical information available for quantifying benefits compared to costs. Additional important guidance elements include consideration of all ancillary co-benefits as well as impacts outside the United States. Finally, EPA has in the past developed detailed cost-benefit analyses for its rulemakings, but at least two recent examples suggest it is now taking a

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<sup>16</sup> Di, Q., *et al.* “Association of short-term exposure to air pollution with mortality in older adults.” *JAMA* 318: 2446-2456 (2017), doi: 10.1001/jama.2017.17923.

<sup>17</sup> 83 Fed. Reg. 27524-27528 (June 13, 2018), at 27527.

<sup>18</sup> 82 Fed. Reg. 53442-53449 (November 16, 2017).

<sup>19</sup> 83 Fed. Reg. 18768-18773 (April 30, 2018).

selective approach to providing this information. EPA can promote greater transparency in its rulemakings by forthrightly presenting cost-benefit information consistent with past practice.

Sincerely,



Paul J. Miller

Deputy Director and Chief Scientist

cc: NESCAUM state directors  
Dave Conroy, EPA R1  
Richard Ruvo, EPA R2