January 15, 2016

VIA ELECTRONIC SUBMISSION

Environmental Protection Agency

Attn: Dr. Nick Hutson, Energy Strategies Group, Sector Policies and Programs Division

Re: Proposed Supplemental Finding That It Is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units

The Institute for Policy Integrity at New York University School of Law[1] respectfully submits the following comments to the Environmental Protection Agency ("EPA" or the "agency") regarding the agency's proposed supplemental finding that it is appropriate and necessary to regulate hazardous air pollutants from coal- and oil-fired electric utility steam generating units ("steam EGUs").[2]

The Institute for Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy.

Policy Integrity's comments are as follows:

- First, when assessing the reasonableness of compliance costs for purposes of its "appropriate and necessary" finding, EPA properly relies on projections made in 2011, prior to the promulgation of the Mercury and Air Toxics Standards (MATS).
- Second, while EPA correctly asserts that it is not required to perform a formal cost-benefit analysis to support its "appropriate and necessary" finding, the agency has discretion to do so. As a result, the cost-benefit analysis in EPA's Regulatory Impact Analysis (RIA) for MATS provides additional, independent support for the agency's "appropriate and necessary" finding.
- Third, the cost-benefit analysis in the MATS RIA properly considers unquantified benefits of reducing hazardous air pollution.
- Fourth, the cost-benefit analysis in the MATS RIA properly includes co-benefits from particulate matter reductions.
- Fifth, EPA properly ensured that the particulate matter co-benefits included in the MATS RIA were not "double counted" as benefits in RIAs for other rulemakings and should make its approach clear.
- Finally, EPA should avoid suggesting that the use of formal cost-benefit analysis is inconsistent with the consideration of unquantified benefits or distributional effects.

[1] This document does not purport to present New York University School of Law's views, if any.

[2] EPA, Supplemental Finding That It Is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 80 Fed. Reg. 75,025 (proposed Dec. 1, 2015).

I. EPA Properly Relies on Cost Projections Made in 2011, Prior to the Promulgation of MATS

In determining whether the costs of regulating hazardous air pollution from steam EGUs are reasonable, EPA appropriately relies on cost estimates prepared in 2011, around the time that the agency re-affirmed its "appropriate and necessary" finding and just prior to its finalization of MATS.[3] Because MATS was promulgated four years ago, updating these estimates now would amount to a retrospective review of costs that have *already* been incurred. Such an exercise in hindsight is clearly not required by Section 112, which contemplates that the "appropriate and necessary" finding will be made before emission standards are promulgated and thus before any compliance costs are incurred.[4]

II. While EPA Is Not Required to Perform a Formal Cost-Benefit Analysis to Justify Its "Appropriate and Necessary" Finding, the Cost-Benefit Analysis in the MATS RIA Provides Additional, Independent Support for the Agency's Finding

EPA correctly asserts that Section 112(n)(1) does not require the agency to perform a formal cost-benefit analysis prior to finding that it is "appropriate and necessary" to regulate hazardous air pollutants from steam EGUs.[5] As the Supreme Court explained in *Michigan v. EPA*, it is "up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost."[6] EPA can certainly *choose* to perform a formal cost-benefit analysis, however, and the agency has, in fact, already prepared one in connection with the MATS RIA.[7] This analysis provides robust and independent support for EPA's "appropriate and necessary" finding, separate from the agency's evaluation of the "reasonableness" of costs.

III. EPA's Cost-Benefit Analysis in the MATS RIA Properly Considers Unquantified Benefits of Reducing Hazardous Air Pollution

The cost-benefit analysis in the MATS RIA properly considers unquantified benefits of reducing hazardous air pollution from steam EGUs. Consideration of unquantified benefits is consistent with economic best practices, executive guidance on regulatory review, and longstanding EPA practice under administrations of both parties.

Consideration of Unquantified Benefits Is Consistent with Economic Best Practices and Executive Guidance on Regulatory Review

Giving "due consideration to factors that defy quantification but are thought to be important" is widely recognized as a best practice for cost-benefit analysis.[8] Accordingly, the executive orders

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[3] 80 Fed. Reg. at 75,032. EPA reaffirmed its "appropriate and necessary" finding in May 2011 and finalized MATS in February 2012. *Id.* at 75,027.

[4] EPA, Legal Memorandum Accompanying the Proposed Supplemental Finding that it is Appropriate and Necessary to Regulate Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, at 21 ("The determination regarding whether regulation is "appropriate and necessary" thus is by design made before any regulatory determinations are made or standards set.").

[5] *Id.* at 20.

[6] Michigan v. EPA, 135 S. Ct. 2699, 2711 (2015).

[7] EPA, Regulatory Impact Analysis for the Final Mercury and Air Toxics Standards, EPA–453/R–11–011 (December 2011) [hereinafter "MATS RIA"].

[8] Kenneth J. Arrow et al., Benefit-Cost Analysis in Environmental, Health, and Safety Regulation: A Statement of Principles 8 (1996).

governing regulatory analysis explicitly instruct agencies to consider unquantified costs and benefits when analyzing proposed rules.[9] Similarly, the Office of Management and Budget's (OMB) guidance document on regulatory analysis, Circular A-4, cautions agencies against ignoring the potential magnitude of unquantified benefits, because the most efficient rule may not have the "largest quantified and monetized . . . estimate."[10]

Consideration of Unquantified Benefits Is Consistent with EPA's Past Practices

For twenty-five years, under presidents of both parties, EPA has repeatedly taken into account unquantified benefits when evaluating regulations. In response to criticism of its benzene regulations under Section 112, EPA under President George H.W. Bush "reject[ed] the position that only quantified information can be considered in the decisions."[11] EPA under the Clinton administration considered the "real, but unquantifiable benefits" of emissions standards for hazardous waste combustors.[12] EPA under President George W. Bush evaluated a rule restricting emissions from non-road diesel engines based on "consideration of all benefits and costs expected to result from the new standards, not just those benefits and costs which could be expressed here in dollar terms."[13] Following in this tradition, EPA found in the MATS RIA that the rule could result in "substantial" unquantified health, environmental, and economic benefits from the reduction of hazardous air pollution, such as preventing neurologic, cardiovascular, genotoxic, and immunologic damage to human health; reproductive damage to wildlife; and negative effects on commercial and recreational fishing yields due to mercury exposure.[14]

IV. EPA's Cost-Benefit Analysis in the MATS RIA Properly Includes Co-Benefits

The cost-benefit analysis in the MATS RIA also properly took into account important indirect benefits, also known as ancillary or co-benefits, of regulating hazardous air pollutants from steam EGUs. Consideration of the ancillary consequences of rulemaking, both positive and negative, is consistent with executive guidance on regulatory review, longstanding EPA practice under administrations of both parties, the legislative history of the 1990 Clean Air Act Amendments, and relevant case law.

Consideration of Co-Benefits Is Consistent with Executive Guidance on Regulatory Review

The executive orders governing regulatory review call for agencies to accurately measure the "actual results of regulatory requirements" and explicitly require analysis of both direct and indirect costs and benefits.[15] Additionally, OMB's Circular A-4 instructs agencies to consider "any important" indirect benefits, which includes any "favorable impact . . . secondary to the statutory

[9] Exec. Order No. 13,563 § 1, 76 Fed. Reg. 3821, 3821 (Jan. 21, 2011) (affirming Exec. Order No. 12,866); accord. Exec. Order No. 12,866 § 6(a)(3)(C), 58 Fed. Reg. 51,735, 51,741 (Oct. 4, 1993) (detailing the requirements for cost-benefit analysis).

[10] OMB, Circular A-4 at 2 (2003) [hereinafter "Circular A-4"]. OMB under President George W. Bush issued Circular A-4 to "standardiz[e] the way benefits and costs of Federal regulatory actions are measured." *Id.* at 1.

[11] 55 Fed. Reg. 8292, 8302 (Mar. 7, 1990).

[12] 64 Fed. Reg. 52,828, 53,023 (Sept. 30, 1999).

[13] 69 Fed. Reg. 38,958, 39,138 (June 29, 2004).

[14] *See* MATS RIA, *supra* note 7, at ES-9 to ES-13.

[15] Exec. Order No. 13,563 § 1, 76 Fed. Reg. at 3821; Exec. Order No. 12,866 § 1, 58 Fed. Reg. at 51,735.

purpose of the rulemaking," and recommends that agencies use the "same standards" for assessing indirect and direct benefits.[16]

Consideration of Co-Benefits Is Consistent with EPA's Own Cost-Benefit Guidelines and Past Practices

EPA's own cost-benefit guidelines, adopted after extensive peer review, likewise instruct the agency to assess "all identifiable costs and benefits," including both direct effects "as well as ancillary (or co-) benefits and costs."[17] The assessment of both direct and indirect effects is needed to "inform decision making" and allow meaningful comparisons between policy alternatives.[18]

Moreover, EPA—under presidents of both parties and across four decades—has consistently taken indirect benefits into account when evaluating Clean Air Act regulations. For example, when proposing to develop New Source Performance Standards for municipal waste combustors, EPA under President Reagan explained that it intended to "consider the full spectrum of the potential impacts of regulation," including "indirect benefits accruing from concomitant reductions in other regulated pollutants."[19] Similarly, in proposing performance standards for landfill gases, EPA under President George H.W. Bush justified the regulation partly by reference to "the ancillary benefit of reducing global loadings of methane."[20] EPA under President Clinton analyzed the indirect benefits of reducing co-pollutants like volatile organic compounds, particulate matter, and carbon monoxide from emissions standards addressing hazardous pollutants from pulp and paper producers.[21] In promulgating a rule on mobile source air toxics, EPA under President George W. Bush noted, "Although ozone and [particulate matter] are considered criteria pollutants rather than 'air toxics,' reductions in ozone and [particulate matter] are nevertheless important co-benefits of this proposal."[22] Finally, EPA under President Obama considered the indirect benefits from reducing carbon monoxide, volatile organic compounds, and nitrogen oxides in its analysis of regulating hazardous air pollutants from combustion engines.[23]

Consideration of Co-Benefits Is Consistent with Congressional Intent for the Implementation of Section 112

The legislative history of the 1990 Clean Air Act Amendments indicates that Congress specifically contemplated that "[w]hen establishing technology-based standards" to regulate hazardous air pollutants under Section 112(d), EPA would "consider the benefits which result from control of air pollutants that are not listed but the emissions of which are, nevertheless, reduced by control technologies or practices necessary to meet the prescribed limitation."[24] Congress noted that these "other compounds, although not listed [under Section 112], would be precursors of ozone pollution," and their "control, even in attainment areas, may produce substantial health and environmental benefits."[25] Congress thus anticipated what would become EPA's standard practice of considering indirect benefits, including the substantial health gains from reducing co-pollutants, when regulating under Section 112.

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[16] Circular A-4, *supra* note 10, at 26.

[17] EPA, Guidelines for Preparing Economic Analyses at 11-2 (2010).

[18] *Id.* at 7-1.

[19] 52 Fed. Reg. 25,399, 25,406 (July 7, 1987).

[20] 56 Fed. Reg. 24,468, 24,469 (May 30, 1991).

[21] 63 Fed. Reg. 18,504, 18,585–86 (Apr. 15, 1998).

[22] 72 Fed. Reg. 8428, 8430 (Feb. 26, 2007).

[23] 75 Fed. Reg. 51,570, 51,578 (Aug. 20, 2010).

[24] S. Rep. No. 101-228, at 172 (1989).

[25] *Id.*

Consideration of Ancillary Consequences Is Consistent with Case Law on Cost-Benefit Analysis

When agencies choose or are required to justify rules by a cost-benefit analysis, courts have repeatedly instructed agencies to consider indirect effects.[26] In *American Trucking Associations v. EPA*, for example, the United States Court of Appeals for the D.C. Circuit held that, when crafting a National Ambient Air Quality Standard (NAAQS) that would reduce concentrations of ozone in the ambient air, the EPA had to consider not only how the new standard would reduce tropospheric ozone's negative impacts on respiratory health, but also how it might reduce the pollutant's alleged *positive* health effects (as shielding from harmful ultraviolet rays), even though the latter effects were not the focus of the rule at issue.[27] Other agencies have faced similar requirements. A National Highway Traffic Safety Administration rule, for example, was struck down for failing to consider whether the fuel-saving benefits from more efficient cars outweighed their potential increased safety risks because smaller, more efficient cars might be less protective in a crash.[28]

While both of the cases discussed above involved indirect *costs* of rulemaking (an unintended reduction in ultraviolet-ray protection and an unintended reduction in vehicle safety), no reason exists to include indirect costs but exclude indirect benefits, since the two "are simply mirror images of each other."[29] Agencies must treat costs and benefits alike, and may not "put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards."[30] Under the executive orders on regulatory analysis, Circular A-4, and EPA's own guidelines, indirect benefits must be counted "equivalently" with other costs and benefits, in order to "offer a full accounting" of a rule.[31] Moreover, there are "no legal, political, or intellectual . . . impediments to treating ancillary benefits and countervailing risks equally in cost-benefit analysis."[32]

V. EPA Properly Ensured That the Particulate Matter Co-Benefits Included in the MATS RIA Were Not "Double Counted" as Benefits in RIAs for Other Rulemakings and Should Make Its Approach Clear

The co-benefits that EPA assigns to particulate matter reductions in the MATS RIA are not counted as benefits in RIAs for any other rulemakings, and EPA should make this clear in its supplemental finding. In accordance with best practices for cost-benefit analysis, EPA developed a baseline scenario projecting future air quality absent additional regulation to serve as a control against which to compare projected air quality under MATS.[33] EPA's internal guidelines on economic

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[26] See Samuel J. Rascoff & Richard L. Revesz, *The Biases of Risk Tradeoff Analysis: Towards Parity in Environmental and Health-and-Safety Regulation*, 69 U. Chi. L. Rev. 1763, 1772–80 (2002).

[27] Am. Trucking Ass'ns v. EPA, 175 F.3d 1027, 1051–52 (D.C. Cir. 1999) *rev'd on other grounds sub nom.* Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2001); see also Corrosion Proof Fittings v. EPA, 947 F.2d 1201, 1225 (5th Cir. 1991) (holding that EPA must consider the indirect safety effects of substitute options for car brakes when banning asbestos-based brakes under the Toxic Substances Control Act).

[28] Competitive Enterprise Inst. v. Nat'l Highway Traffic Safety Admin., 956 F.2d 321, 326-27 (D.C. Cir. 1992); see also Am. Dental Ass'n v. Martin, 984 F.2d 823, 826-27 (7th Cir. 1993) (remanding in part an Occupational Safety and Health Administration regulation for failure to consider indirect costs).

[29] Rascoff & Revesz, *supra* note 26, at 1793.

[30] Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1198 (9th Cir. 2008).

[31] Cass R. Sunstein, *The Real World of Cost-Benefit Analysis: Thirty Six Questions (and Almost as Many Answers)*, 114 Colum. L. Rev. 167, 190 (2014).

[32] Christopher C. DeMuth & Douglas H. Ginsburg, *Rationalism in Regulation*, 108 Mich. L. Rev. 877, 888 (2010) (book review).

[33] MATS RIA, *supra* note 7, at 1 - 11 to 1 - 12; Circular A-4, *supra* note 10, at 2 (instructing agencies to "[i]dentify a baseline" in order to "evaluate properly the benefits and costs of regulations and their alternatives").

analysis instruct staff to "develop baseline and policy scenarios that assume full compliance with existing and newly enacted (but not yet implemented) regulations," which "enables the analysis to focus on the incremental economic effects of the new rule or policy without double counting benefits and costs captured by analyses performed for other rules."[34] That is precisely what EPA did here. In particular, EPA developed a baseline that accounted for the emissions reductions of sulfur oxides, nitrogen oxides, directly emitted particulate matter, and carbon dioxide from "federal rules, state rules and statutes, and other binding, enforceable commitments in place by December 2010," as well as "the Cross-State Air Pollution Rule (CSAPR) as finalized in July 2011."[35]

Furthermore, in developing its baselines in subsequent rulemakings, EPA ensured that these later rules did not count benefits that had already been attributed to MATS. In its regulatory impact analysis for a subsequent revision of the particulate matter NAAQS, EPA explained: "It is important to emphasize that the EPA does not 'double count' the costs or the benefits of our rules. Emission reductions achieved under rules that require specific actions from sources—such as MATS—are in the baseline of this NAAQS analysis, as are emission reductions needed to meet the current NAAQS."[36] Thus, any benefits claimed to result from subsequent regulations are due to the additional incremental pollutant reductions of those rules alone.

VI. EPA Should Not Suggest That Formal Cost-Benefit Analysis Is Inconsistent with the Consideration of Unquantified Benefits and Distributional Effects

As noted earlier, EPA correctly concludes that Section 112(n)(1) does not require the agency to perform a formal cost-benefit analysis before making its "appropriate and necessary" finding. The agency goes on, however, to suggest that in addition to not being required, a formal cost-benefit analysis is not desirable because it cannot adequately account for either the unquantified benefits or distributional effects of regulating hazardous air pollutants from steam EGUs.[37] This is incorrect.

As discussed in Section III, formal cost-benefit analyses can and should include qualitative descriptions of unquantified benefits, as the MATS RIA already does. EPA claims that "the numerous categories of benefits that the EPA was unable to quantify leads to an underestimate of benefits in the MATS RIA,"[38] but the fact that some benefits are not *monetized* in the RIA does not mean that they will necessarily be underestimated. Instead, it is up to the agency to "exercise professional judgment in determining how important the non-quantified benefits or costs may be in the context of the overall analysis."[39]

As for distributional effects, it is true that formal cost-benefit analysis focuses on the overall efficiency of a regulation (whether a rule's benefits to society as a whole justify its costs to society as a whole) and thus "may not account for important distributional effects, such as impacts to the most exposed and most sensitive individuals in a population."[40] This is not, however, a reason to

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[34] EPA, Guidelines for Preparing Economic Analyses at 5-9 (2010).

[35] MATS RIA, *supra* note 7, at 1-11.

[36] EPA, Regulatory Impact Analysis for the Final Revisions to the National Ambient Air Quality Standards for Particulate Matter at ES-18 (2012); *see also* EPA, Regulatory Impact Analysis for the Proposed Carbon Pollution Guidelines for Existing Power Plants and Emission Standards for Modified and Reconstructed Power Plants at 3 - 4 to 3 - 5 (2014) ("Base Case includes . . . the Mercury and Air Toxics Rule . . . .").

[37] 80 Fed. Reg. at 75,039.

[38] *Id.* at 75,040.

[39] Circular A-4, *supra* note 10, at 2. One way of exercising this judgment is conducting a "break-even" analysis—that is, determining how much a rule's unquantified benefits would have to be worth in order for its total expected benefits to justify its total expected costs. *Id.*

[40] 80 Fed. Reg. at 75,040.

eschew cost-benefit analysis altogether. Instead, Circular A-4 provides that "where distributive effective are thought to be important," agencies should prepare a separate distributional analysis that details "the magnitude, likelihood, and severity of impacts on particular groups."[41] In other words, consideration of a regulation's distributional effects is best viewed as a complement to formal cost-benefit analysis, not a substitute for it.

Respectfully submitted,

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[41] Circular A-4, *supra* note 10, at 14.