ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT
No. 18-1285 (and consolidated cases)

STATE OF MARYLAND, *et al.*,
Petitioners,

v.

ENVIRONMENTAL PROTECTION AGENCY, *et al.*,
Respondents.

On Petition for Review of Final Action by the
United States Environmental Protection Agency
83 Fed. Reg. 50,444 (Oct. 5, 2018)

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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April 5, 2019

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

A. Parties

All parties and intervenors appearing in this case are listed in the opening briefs for Petitioners.

B. Rulings Under Review

References to the ruling under review appear in Petitioners' opening briefs.

C. Related Cases

As noted in Petitioners' opening briefs, the final agency action at issue in this proceeding has not previously been reviewed by this or any other court. There are no related cases (other than those consolidated herein) within the meaning of D.C. Circuit Rule 28(a)(1)(C).

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. Policy Integrity is dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. 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.

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:

Cross-State Air Pollution Rule	Cross-State Rule
Cross-State Air Pollution Rule Update	Cross-State Update
EPA	Environmental Protection Agency
Policy Integrity	Institute for Policy Integrity

INTEREST OF AMICUS CURIAE AND AUTHORITY TO FILE

The Institute for Policy Integrity at New York University School of Law[1] ("Policy Integrity") submits this *amicus* brief in support of Petitioners. 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 particular focus on the proper use of cost-benefit analysis in environmental rulemaking.

Policy Integrity consists of a team of legal and economic experts, trained in the estimation of costs and benefits and the application of economic principles to regulatory decisionmaking. Policy Integrity's leadership and staff have produced extensive scholarship on regulation under the Clean Air Act and other federal environmental laws. For example, Policy Integrity's Director, Professor Richard Revesz, has written on the economic justifications for federal regulation of interstate externalities,[2] as well as the importance of accurately quantifying the health and welfare benefits of environmental protections.[3] Additionally, Professor

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

[2] Richard Revesz, *Federalism and Interstate Environmental Externalities*, 144 U. Pa. L. Rev. 2341 (1996).

[3] *See, e.g.*, Kimberly M. Castle & Richard L. Revesz, *Environmental Standards, Thresholds, and the Next Battleground of Climate Change Regulations*, 103 Minn. L. Rev. 1349 (2019); Richard L. Revesz, *Quantifying Regulatory Benefits*, 102 Cal. L. Rev. 1423 (2014); *see also* Richard L. Revesz, Publications, NYU School of

Revesz and Jack Lienke, Policy Integrity's Regulatory Policy Director, co-authored a book on the history of power-plant regulation under the Clean Air Act, including decades of efforts by states and the U.S. Environmental Protection Agency (EPA) to combat interstate pollution from coal-fired plants.[4]

Policy Integrity has harnessed this expertise to file *amicus* briefs in several cases involving Clean Air Act regulations. Most notably for purposes of the present case, Policy Integrity filed an *amicus* brief in *EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489 (2014), in support of the Cross-State Air Pollution Rule ("Cross-State Rule"). Professor Revesz's law review article on interstate externalities was cited prominently in the Supreme Court's majority opinion in that case. *Id.* at 495. Policy Integrity also participated as *amicus curiae* in cases regarding Clean Air Act limits on mercury, greenhouse gas, and ozone pollution. *See, e.g.*, Br. for Inst. for Policy Integrity as *Amicus Curiae*, *Michigan v. EPA*, 135 S. Ct. 2699 (2015) (discussing EPA's calculation of costs and benefits in its regulation of mercury emissions from power plants); Br. for Inst. for Policy Integrity as *Amicus Curiae*, *Murray Energy Corp. v. EPA*, No. 15-1385 (D.C. Cir.

Law, https://its.law.nyu.edu/facultyprofiles/index.cfm?fuseaction=profile.publications&personid=20228 (last visited Apr. 4, 2019).

[4] Richard L. Revesz & Jack Lienke, Struggling for Air: Power Plants and the "War on Coal" (Oxford University Press 2016).

Aug. 4, 2016) (discussing the cost-benefit analysis EPA prepared in connection with its revision to national ozone standards).

Here, Policy Integrity's expertise in both the Clean Air Act and economic analysis gives it a unique perspective from which to evaluate EPA's contention that the relief requested by Maryland and Delaware in their Section 126 petitions is not cost-effective.

Policy Integrity has conveyed to the parties its interest in this case, and all parties have consented to the filing of this *amicus* brief.

SUMMARY OF ARGUMENT

The Clean Air Act's Good Neighbor Provision requires state implementation plans for achieving national ambient air quality standards ("ambient standards") to include "adequate provisions . . . prohibiting any source of other type of emissions activity" within the state from emitting air pollution in amounts that "contribute significantly" to any *other* state's nonattainment of the ambient standards or "interfere with maintenance" of those standards. 42 U.S.C. § 7410(a)(2)(D)(i)(I). When sources in upwind states emit in violation of this provision, Section 126 of the Act authorizes downwind states to petition EPA for relief. *Id.* § 7426(b)–(c).

Petitioners challenge EPA's denial of five such petitions filed by Maryland and Delaware, which sought tighter limits on ozone-forming nitrogen oxides emissions from electric generating units in Indiana, Kentucky, Ohio, Pennsylvania,

and West Virginia ("Section 126 petitions").[5] While Petitioners offer many grounds for vacating EPA's decision, this *amicus* brief focuses on just one: the agency's claim that, following implementation of the Cross-State Air Pollution Rule Update ("Cross-State Update"), no additional cost-effective emission reductions are available at the sources named in the Section 126 petitions. Opening Br. Citizen Pet'rs, Docket No. 1780297, at 15.

EPA appears to believe that, even when a Section 126 petition establishes a nonattainment problem linked to emissions from an upwind state, the petitioning state can be denied relief if the emission reductions it requests are costlier to achieve than those deemed cost-effective in a prior, EPA-initiated rulemaking under the Good Neighbor Provision.[6] But this interpretation reflects a fundamental misunderstanding of the role that cost considerations may play in determining whether emissions from a particular upwind source violate the Good Neighbor

[5] *See* Opening Br. Pet'r Md., Docket No. 1780298, at 12–13 (explaining that Maryland sought tighter controls on thirty-six electric generating units in Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia); Opening Br. Pet'r Del., Docket No. 1780302, at 7 (explaining that Delaware sought tighter controls on four power plants in West Virginia and Pennsylvania, two of which were also named in Maryland's petition).

[6] *See* 83 Fed. Reg. 50,444, 50,445 (Oct. 5, 2018) (arguing that the Cross State-Update "appropriately quantified the cost-effective [nitrogen oxides] reduction potential" of the sources named in the Section 126 petitions and that "any further [nitrogen oxides] reductions that may be available" from these plants are not cost-effective).

Provision by "contribut[ing] significantly" to downwind nonattainment. 42 U.S.C. § 7410(a)(2)(D)(i)(I).

In *EME Homer City,* the Supreme Court held that, when choosing among multiple pathways to attainment in downwind states, EPA could rely on cost-effectiveness analysis as a means of allocating emission-reduction burdens among the states. 572 U.S. 489, 519–20 (2014). The Court in that case upheld EPA's Cross-State Rule, which deemed upwind contributions significant (and thus emitted in violation of the Good Neighbor Provision) if they could be more cheaply reduced than other emissions whose elimination would contribute equally to downwind attainment. *See id.* at 520 ("EPA must decide how to differentiate among the otherwise like contributions of multiple upwind States. EPA found decisive the difficulty of eliminating each 'amount,' *i.e.,* the cost incurred in doing so.").

Nothing in *EME Homer City* suggests, however, that EPA has authority to categorize upwind emissions as *in*significant simply because their abatement cost exceeds an arbitrary threshold. Instead, EPA can deem such emissions insignificant only if it can identify other reductions that will lead to downwind attainment at a lower cost, which it has not done in these proceedings. Cost-effectiveness, in other words, is a permissible grounds for choosing one route to the Good Neighbor

Provision's "goal of attainment" over another, 587 U.S. at 517, not for declining to pursue attainment at all.

In addition to finding no support in *EME Homer City*, EPA's position is at odds with the basic nature of cost-effectiveness analysis, which, by definition, compares different means of achieving *the same goal*. Here, the Supreme Court has made clear that the Good Neighbor Provision "seeks attainment in *every* downwind state." 587 U.S. at 522 (emphasis in original). Thus, to determine whether further emission reductions at the sources identified in the Section 126 petitions are cost-effective, EPA must compare the cost of those reductions to the cost of other emission reductions—whether in the named states, the petitioning states, or elsewhere—that would bring the petitioning states into attainment. Because the agency did not make such a comparison before denying the Section 126 petitions, it could not reasonably conclude that the requested reductions are not cost-effective.

ARGUMENT

I. EPA CAN CONSIDER COST IN DETERMINING *HOW* TO ACHIEVE THE GOOD NEIGHBOR PROVISION'S GOAL OF ATTAINMENT, BUT NOT IN DETERMINING *WHETHER* TO ACHIEVE THAT GOAL

The Good Neighbor Provision prohibits upwind sources from "contribut[ing] significantly" to downwind nonattainment, 42 U.S.C. § 7410(a)(2)(D)(i)(I), and EPA concedes that at least one of the petitioning states,

Maryland, has established a nonattainment problem linked to upwind emissions, 83 Fed. Reg. 50,444, 50,464 (Oct. 5, 2018). The agency claims, however, that the upwind sources named in the Section 126 petitions do not "emit in violation" of the Good Neighbor Provision because, following implementation of the Cross-State Update, they have already achieved "all identified cost-effective emission reductions." *Id*. at 50,449.[7] In other words, EPA appears to believe that upwind sources' contributions to downwind nonattainment can be deemed categorically *in*significant if the cost of eliminating them rises above the cost-effectiveness threshold adopted in the most recent EPA-initiated rulemaking under the Good Neighbor Provision. But in taking this position, the agency misunderstands the proper role of cost considerations in significance determinations under the Good Neighbor Provision.

As the Supreme Court explained in *EME Homer City*, implementing the Good Neighbor Provision requires EPA to resolve "a thorny causation problem." 572 U.S. at 514. Due to the "vagaries of the wind," "[m]ost upwind States propel pollutants to more than one downwind State, many downwind States receive pollution from multiple upwind States, and some States qualify as both upwind and downwind." *Id.* at 496–97. This complex web of linkages offers EPA a variety of

[7] EPA claims that Delaware has *not* established a nonattainment problem, but argues that the unavailability of cost-effective reductions at the sources named in Delaware's petitions "provides an additional, independent grounds for denial." 83 Fed. Reg. at 50,464.

pathways to downwind attainment, depending on which states it requires to reduce emissions and in what quantities. To select among the available routes, the agency must adopt a guiding principle for "allocat[ing] among multiple contributing upwind states responsibility for a downwind State's excess pollution." *Id.* at 514.

In the Cross-State Rule, EPA chose cost-effectiveness as that guiding principle: having first identified twenty-seven upwind states that contributed at least one percent of the maximum permissible concentration of either ozone or particulate matter in at least one downwind state that was out of attainment, the agency determined a statewide emissions budget for sources in each of the upwind states based on the volume of reduction available for $500 per ton or less. 76 Fed. Reg. 48,208, 48,264 (Aug. 8, 2011). In this way, an upwind state's contribution to downwind nonattainment was deemed significant—and thus a violation of the Good Neighbor Provision—only to the extent that it could be cost-effectively reduced relative to emissions in other contributing states.

The *EME Homer City* Court found that EPA's decision to apportion reduction responsibility based, in part, on cost-effectiveness was "an efficient and equitable solution to the allocation problem the Good Neighbor Provision requires the Agency to address." 572 U.S. at 519. The cost-effectiveness criterion was efficient because it would move downwind states toward attainment "at a much lower overall cost." *Id.* And the criterion was equitable because it would "subject

to stricter regulation those States that have done relatively less in the past to control their pollution." *Id.*

But while *EME Homer City* endorsed EPA's use of cost-effectiveness as a means of selecting among different routes to attainment in downwind states, the Court never suggested that the agency could use cost considerations as a justification for disregarding the Good Neighbor Provision's "goal of attainment" altogether. *Id.* at 517. On the contrary, the Court emphasized that EPA "has a statutory obligation to avoid 'under-control,' *i.e.,* to maximize achievement of attainment." *Id.* at 523.

In the Cross-State Update, issued five years after the Cross-State Rule, EPA quite openly engaged in under-control—that is, it did not purport to eliminate all emissions that violated the Good Neighbor Provision, either by contributing significantly to downwind nonattainment or interfering with maintenance of ambient standards in downwind states. Instead, the agency sought a "partial remedy" that focused on "immediately available reductions." 81 Fed. Reg. 74,504, 74,521 (Oct. 26, 2016). To this end, EPA set state emission budgets based on the reductions available for $1,400 per ton or less. *Id.* at 74,508.

EPA acknowledged that it was "only quantifying a subset of each state's emission reduction obligation pursuant to the good neighbor provision," and that further reductions "may be necessary to eliminate all significant contribution to

nonattainment or interference with maintenance in other states." *Id.* at 74,520–21. The agency further conceded that achieving full compliance with the Good Neighbor Provision might require it to deviate from the use of a uniform abatement-cost threshold in every state. *Id.* at 74,520 ("It is only due to the partial nature of the remedy provided by this rule that the EPA is finalizing a single uniform level of control stringency for all [Cross-State] Update states.").

Accordingly, even if it were true that the reductions requested in the Section 126 petitions would be more expensive, on a per-ton basis, than the reductions achieved by the Cross-State Update, this would not be grounds for claiming that the emissions are not cost-effective to eliminate and thus are not significant contributions under the Good Neighbor Provision. In determining whether a contribution to downwind nonattainment is significant, EPA can consider the cost-effectiveness of eliminating it relative to the cost of other reductions that would make equal progress toward the Good Neighbor Provision's "goal of attainment." 572 U.S. at 523; *id.* at 519 ("The Agency, tasked with choosing which among equal 'amounts' to eliminate, has chosen sensibly to reduce the amount easier, *i.e.*, less costly, to eradicate."). What EPA cannot do is what it has done here: set emission budgets that are admittedly insufficient to achieve attainment in downwind states and then claim that, upon further reflection, the additional reductions needed for attainment are too costly—and thus legally unnecessary—to

pursue. This is like painting half a wall, pledging to come back and complete the job later, and then, when pressed to follow through, declaring that the unfinished half never needed to be painted in the first place. Nothing in *EME Homer City* or the Clean Air Act permits EPA to restrict the scope of the Good Neighbor Provision—and by extension, Section 126—in this manner.

II. EPA SHOULD HAVE ASSESSED THE COST-EFFECTIVENESS OF MARYLAND'S AND DELAWARE'S REQUESTED RELIEF RELATIVE TO OTHER OPTIONS FOR ACHIEVING ATTAINMENT

EPA claims that any cost-effectiveness findings it made in the context of the Cross-State Update "are informative—if not determinative" for purposes of its evaluation of the Section 126 petitions. 83 Fed. Reg. at 50,452. But the agency fails to appreciate the necessarily context-dependent nature of cost-effectiveness analysis. The fact that a particular reduction was not deemed cost-effective in the context of the reductions achieved by the Cross-State Update does not mean it is not cost-effective in the context of the reductions requested by the Section 126 petitions.

Cost-effectiveness analysis is, by definition, a comparative inquiry. Given multiple options for achieving a particular goal, an agency identifies the least expensive course of action. *See* EPA, Guidelines for Preparing Economic

Analyses, at xi (2010) (cost-effectiveness analysis "is designed to identify the least expensive way of achieving a given environmental quality target").[8]

Say an agency has a statutory mandate to reduce 100 tons of pollution. Is a technology that can accomplish this goal for $5,000 per ton cost-effective? It depends. If the only other means of reducing those 100 tons of pollution costs $10,000 per ton, then yes, the $5,000 solution is cost-effective. If, by contrast, there is a technology that would do the job for only $2,500 per ton, then no, the $5,000 option is not cost-effective.

Furthermore, a technology that could reduce pollution at a cost of $1,000 per ton but that would eliminate only 50 total tons is *not* a more cost-effective means of fulfilling the agency's mandate than the $5,000 solution. The problem here is not that the $1,000 option is excessively costly but that it is *insufficiently effective.* It will not achieve the relevant goal, which, again, is to reduce 100 tons of pollution.

The ultimate goal of the Good Neighbor Provision is "attainment in *every* downwind state." 572 U.S. at 522 (emphasis in original). As discussed above, the

[8] *See also* EPA, Guidelines for Preparing Economic Analyses, at 1-5 (cost-effectiveness analysis helps "identify the least costly approach to achieving a specific goal"), https://www.epa.gov/environmental-economics/guidelines-preparing-economic-analyses; Eric A Posner, *Transfer Regulations and Cost-Effectiveness Analysis*, 53 Duke L. J. 1067, 1069 (2003) ("Cost-effectiveness analysis is a procedure for comparing the different means for achieving a given regulatory end; it identifies the least costly means as the most cost-effective.").

Cross-State Update was concededly insufficient to achieve that goal. Accordingly, claiming that the emission reductions requested in the Section 126 petitions are not cost-effective simply because they may be costlier than the reductions already required by the Cross-State Update is equivalent to claiming that the technology that reduces 50 tons of pollution for $1,000 per ton is more cost-effective than the technology that reduces 100 tons of pollution for $5,000 per ton. If the former option cannot actually achieve the statutory goal, it may be less costly, but it is not more cost-*effective*. Thus, while EPA had discretion to consider the cost-effectiveness of available abatement measures when determining whether emissions from the upwind sources cited in the Section 126 petitions qualified as significant contributions under the Good Neighbor Provision, the relevant comparison for determining cost-effectiveness was between the cost of eliminating emissions from the cited sources and the cost of achieving *other* reductions that would lead to attainment in the petitioning states.

Put another way, the question for EPA was this: as between sources in the petitioning states and the upwind sources identified in the Section 126 petitions, which could most cheaply make further emission reductions beyond those already required by the Cross-State Update? The answer is almost certainly the upwind sources. Maryland's petition, for example, asked EPA to require that nineteen power plants in upwind states operate their Selective Catalytic Reduction

equipment every day during the summer ozone season. *See* Petition to the United States Environmental Protection Agency Pursuant to Section 126 of the Clean Air Act for Abatement of Emissions from 36 Coal-Fired Electric Generating Units at 19 Plants in Five States that Significantly Contribute to Nonattainment of, and Interfere with Maintenance of, the 2008 Ozone National Ambient Air Quality Standard in the State of Maryland, at 4 (Nov. 16, 2016).[9] This is a practice that Maryland has required of its own plants since 2015. *Id.*

Granting Maryland's petition would thus have achieved exactly the sort of "equitable" solution that the Supreme Court endorsed in *EME Homer City*, in which "[u]pwind states that have not yet implemented pollution controls [are] stopped from free riding on their neighbors' efforts to reduce pollution." 572 U.S. at 519. But rather than helping to realize an efficient and equitable solution to nonattainment in the petitioning states, EPA chose to disclaim its responsibility to offer any remedy at all. This abdication was both contrary to the requirements of the Clean Air Act and arbitrary and capricious under the Administrative Procedure Act.

[9] *Available at* https://news.maryland.gov/mde/wp-content/uploads/sites/6/2016/11/MD_126_Petition_Final_111616.pdf.

CONCLUSION

The court should vacate EPA's denial of the Section 126 petitions.[10]

DATED: April 5, 2019

Respectfully submitted,

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[10] Policy Integrity thanks Tim Duncheon and Adam Kern, students in New York University School of Law's Regulatory Policy Clinic, for aiding in the preparation of this brief.

CERTIFICATE OF COMPLIANCE WITH TYPE-VOLUME LIMIT

Pursuant to Fed. R. App. P. 29(a)(4)(G) and Fed. R. App. P. 32(g)(1), I hereby certify that this brief complies with the type-volume limitations of Fed. R. App. P. 29(a)(5) because it contains 3,203 words (as counted by counsel's word processing system) excluding those portions exempted by Fed. R. App. P. 32(f) and D.C. Cir. R. 32(e)(1), which is less than one-half the maximum length authorized for a principal brief under Fed. R. App. P. 32(a)(7)(B).

I further certify that this brief complies with the typeface requirements of Fed. R. App. P. 32(a)(5) and the type-style requirements of Fed. R. App. P. 32(a)(6) because it has been prepared in a proportionally spaced typeface in 14-point Times New Roman font.

DATED: April 5, 2019

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CERTIFICATE OF SERVICE

I hereby certify that on April 5, 2019, I filed the foregoing Final Brief of the Institute for Policy Integrity at New York University School of Law as *Amicus Curiae* in Support of Petitioners through the Court's CM/ECF system, which will send a notice of filing to all registered CM/ECF users.

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