

United States Court of Appeals  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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Argued January 16, 2020

Decided May 19, 2020

No. 18-1285

STATE OF MARYLAND,  
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,  
RESPONDENT

CITY OF NEW YORK, ET AL.,  
INTERVENORS

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Consolidated with 18-1287, 18-1301

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On Petitions for Review of an Action of the  
United States Environmental Protection Agency

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*William J. Kassab*, Deputy Attorney General, Office of the Attorney General for the State of Delaware, argued the cause and filed the briefs for petitioner State of Delaware.

*Joshua Berman* argued the cause for Citizen Petitioners. With him on the briefs were *Ariel Solaski*, *Jon A. Mueller*, *Leah Kelly*, *Ann Brewster Weeks*, *Graham McCahan*, *Sean H. Donahue*, and *Susannah L. Weaver*. *Hayden W. Hashimoto* entered an appearance.

*Michael F. Strande*, Assistant Attorney General, Office of the Attorney General for the State of Maryland, argued the cause for petitioner State of Maryland. With him on the briefs were *Brian E. Frosh*, Attorney General, and *Joshua M. Segal*, Special Assistant Attorney General.

*Letitia James*, Attorney General, Office of the Attorney General for the State of New York, *Morgan A. Costello* and *Claiborne E. Walthall*, Assistant Attorneys General, *Barbara D. Underwood*, Solicitor General, *Steven Wu*, Deputy Solicitor General, *David S. Frankel*, Assistant Solicitor General, *Gurbir S. Grewal*, Attorney General, Office of the Attorney General for the State of New Jersey, *Aaron A. Love*, Deputy Attorney General, and *Christopher G. King* were on the brief for petitioner-intervenors State of New York, et al.

*Richard L. Revesz* and *Jack Lienke* were on the brief for *amicus curiae* Institute for Policy Integrity at New York University School of Law in support of petitioners.

*Samara M. Spence*, Attorney, U.S. Department of Justice, argued the cause for respondent. With her on the brief were *Jeffrey Bossert Clark Sr.*, Assistant Attorney General, *Jonathan Brightbill*, Principal Deputy Assistant Attorney General, and *Abirami Vijayan* and *Stephanie L. Hogan*, Counsel, U.S. Environmental Protection Agency.

*Norman W. Fichthorn*, *E. Carter Chandler Clements*, *Garry S. Rice*, *Rae E. Cronmiller*, and *Janet J. Henry* were on the brief for respondent-intervenors.

Before: HENDERSON, GARLAND, and KATSAS, *Circuit Judges*.

## Opinion for the Court filed PER CURIAM.

PER CURIAM: The Clean Air Act, 42 U.S.C. §§ 7401 *et seq.*, charges the United States Environmental Protection Agency (EPA) with regulating air pollution, including ozone. Clean Air Act section 110 requires individual states to adopt plans for the implementation and enforcement of EPA-mandated national air quality standards. *Id.* § 7410. But because pollutants are readily transported across large areas, without regard to state boundaries, upwind emissions can impede downwind states' attainment of the national standards. To address this unequal burden, section 110 includes a "Good Neighbor Provision," which requires state plans to prohibit emissions that will "contribute significantly" to nonattainment in any other state. *Id.* § 7410(a)(2)(D)(i)(I). The EPA has developed a four-step framework to address Good Neighbor obligations in this context. At Step One, it identifies downwind areas projected to have trouble attaining the relevant air quality standard. At Step Two, the EPA determines which upwind states are "linked" to the downwind nonattainment sites. At Step Three, it calculates the optimal level of pollution control, considering the marginal cost of emission reductions and anticipated downwind air quality improvements. The EPA then formulates an emissions budget for each state, accounting for achievable reductions. Finally, at Step Four, the EPA typically promulgates federal implementation plans that require upwind states' participation in a regional cap-and-trade program to bring about compliance with their Good Neighbor obligations.

Separately, Clean Air Act section 126(b) authorizes "[a]ny State" to petition the EPA for a finding that an upwind source "emits or would emit" in violation of the Good Neighbor Provision's prohibition. *Id.* § 7426(b). If the EPA makes the requested finding, the offending source must cease operations

unless it complies with federally enforceable emission limitations. In 2016 Maryland and Delaware filed section 126(b) petitions requesting that the EPA impose additional limitations on certain upwind sources that were purportedly contributing to the two States' nonattainment of the national ozone standards. Both States sought to require the optimization of existing selective catalytic reduction controls; Maryland also addressed the operation of selective non-catalytic reduction controls at two facilities and Delaware requested that one facility burn only natural gas.

The EPA denied the petitions on October 5, 2018. Because a section 126(b) petition seeks a finding that the upwind source has violated the Good Neighbor provision, the EPA applies the same four-step framework it developed in the implementation of section 110. The EPA denied Delaware's petitions at Step One, finding that Delaware had not demonstrated a current or future in-state air quality problem and that, under the EPA's own modeling, no such problem would exist under either the 2008 or 2015 ozone standards. Alternatively, the EPA concluded that denial was warranted under Step Three because Delaware failed to identify any available cost-effective controls at the named sources. Although Maryland survived Steps One and Two, the EPA denied its petition at Step Three. Like Delaware, Maryland failed to identify further cost-effective emission reductions at sources operating with catalytic controls. For the remaining sources named in Maryland's petition, the EPA explained that non-catalytic controls were not cost-effective in this context. Maryland, Delaware and a coalition of environmental groups (Citizen Petitioners) petition for review of the EPA's denials. Although we reject some of the EPA's Step One determinations, we find, with one exception, that it reasonably denied the petitions at Step Three. We conclude, however, that the EPA's explanation was inadequate with respect to non-

catalytic controls. We therefore grant Maryland’s petition for review in part and remand this issue to the EPA. We deny all other petitions for review.

## I. Background

### A. Statutory Framework

The Clean Air Act instructs the EPA to establish a primary and secondary National Ambient Air Quality Standard (NAAQS), *see* 42 U.S.C. § 7409, for each air pollutant “which may reasonably be anticipated to endanger public health or welfare,” *id.* § 7408(a)(1)(A).<sup>1</sup> Once established by the EPA, these standards “become the centerpiece of a complex statutory regime aimed at reducing the pollutant’s atmospheric concentration.” *Am. Trucking Ass’ns, Inc. v. EPA*, 283 F.3d 355, 358–59 (D.C. Cir. 2002). The EPA first promulgated the NAAQS for ground-level ozone, i.e., smog, in 1979. *See* Revisions to the National Ambient Air Quality Standards for Photochemical Oxidants, 44 Fed. Reg. 8202 (Feb. 8, 1979). In 1997 it set the ozone NAAQS at a level of 80 parts per billion (ppb), measured over an eight-hour period. *See* National Ambient Air Quality Standards for Ozone, 62 Fed. Reg. 38,856 (July 18, 1997). The EPA subsequently reduced the ozone NAAQS to 75 ppb in 2008, *see* National Ambient Air Quality Standards for Ozone, 73 Fed. Reg. 16,436 (Mar. 27, 2008), and, in 2015, to 70 ppb, *see* National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292 (Oct. 26, 2015).

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<sup>1</sup> A “primary” NAAQS must specify the level of air quality “requisite to protect the public health,” while “allowing an adequate margin of safety.” 42 U.S.C. § 7409(b)(1). A “secondary” NAAQS, on the other hand, “specif[ies] a level of air quality . . . requisite to protect the public welfare.” *Id.* § 7409(b)(2).

To promote attainment and maintenance of the NAAQS, the “EPA, in coordination with state governments, divides the country geographically into ‘[a]ir quality control region[s].’” *NRDC v. EPA*, 777 F.3d 456, 458 (D.C. Cir. 2014) (alterations in original) (quoting 42 U.S.C. § 7407). “Some areas lie within a single state while others encompass portions of two or more states.” *Del. Dep’t of Nat. Res. & Envtl. Control v. EPA*, 895 F.3d 90, 94 (D.C. Cir. 2018). Once the EPA issues a new or revised NAAQS, it “designates each area as ‘attainment,’ ‘nonattainment,’ or ‘unclassifiable’ with respect to the NAAQS.” *Id.* (citing 42 U.S.C. § 7407(d)(1)(A), (B)). An “attainment” area meets the NAAQS, that is, the atmospheric concentration of the regulated pollutant is less than the allowable level; an “unclassifiable” area, as the name suggests, cannot be classified due to the absence of available information; and a “nonattainment” area exceeds the NAAQS or contributes to a violation in a nearby area. 42 U.S.C. § 7407(d)(1)(A)(i)–(iii). Ozone nonattainment areas are further classified by operation of law, according to the severity of their air quality problems, as marginal, moderate, serious, severe, or extreme. *Id.* § 7511(a)(1). These classifications determine how long the area has in order to attain the primary NAAQS. *Id.* An ozone nonattainment area that misses its attainment deadline is generally bumped up to the next highest classification, *id.* § 7511(b)(2)(A), which “impose[s] additional regulatory responsibilities on the states composing that area,” *Del. Dep’t of Nat. Res.*, 895 F.3d at 94.

Following the promulgation of a NAAQS, each state must submit a state implementation plan (SIP) that “provides for implementation, maintenance, and enforcement” of the NAAQS within that state. 42 U.S.C. § 7410(a)(1). For states in nonattainment areas, “SIPs must show how the areas will achieve and maintain the relevant NAAQS.” *S. Coast Air Quality Mgmt. Dist. v. EPA*, 882 F.3d 1138, 1143 (D.C. Cir.

2018). In particular, SIPs for ozone nonattainment areas must adopt certain measures, *see, e.g., id.* at 1143–44, intended to bring about attainment “as expeditiously as practicable” and not later than specific statutory deadlines, 42 U.S.C. § 7511(a)(1). If a state fails to submit a SIP, or if its submission is incomplete or disapproved, the EPA must issue a federal implementation plan (FIP) that requires the state to correct the identified deficiency. *Id.* § 7410(c)(1).

State-level air quality regulation is an inherently complicated endeavor because “[a]ir pollution is transient, heedless of state boundaries. Pollutants generated by upwind sources are often transported by air currents, sometimes over hundreds of miles, to downwind States.” *EPA v. EME Homer City Generation, L.P.*, 572 U.S. 489, 496 (2014). For example, ground-level ozone is not emitted directly into air. Rather, it is the product of chemical reactions between nitrogen oxides (NO<sub>x</sub>) and non-methane volatile organic compounds in the presence of sunlight. *See New York v. EPA*, 133 F.3d 987, 989 (7th Cir. 1998). Thus, the upwind emission of ozone precursors can seriously threaten downwind attainment of the ozone NAAQS. “As the pollution travels out of state, upwind States are relieved of the associated costs,” which “are borne instead by the downwind States, whose ability to achieve and maintain satisfactory air quality is hampered by the steady stream of infiltrating pollution.” *EME Homer City*, 572 U.S. at 496.

To alleviate this potential inequity, Congress included a Good Neighbor Provision in the Clean Air Act. Under the Good Neighbor Provision, SIPs must prohibit in-state sources “from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any [NAAQS].” 42 U.S.C. § 7410(a)(2)(D)(i). If the SIP is

incomplete or inadequate, a FIP may be necessary to address the state's Good Neighbor obligations. *See id.* § 7410(c)(1).

Separate from the SIP and FIP process, Clean Air Act section 126(b) authorizes “[a]ny State or political subdivision” to petition the EPA “for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of” the Good Neighbor Provision. 42 U.S.C. § 7426(b).<sup>2</sup> The EPA must “make such a finding or deny the petition” within sixty days. *Id.* In other words, it “must act quickly . . . and not wait the potential several years that it would take for states to fully adopt SIPs implementing new NAAQS.” *GenOn REMA, LLC v. EPA*, 722 F.3d 513, 520 (3d Cir. 2013). But the EPA still must determine whether an upwind source has violated the Good Neighbor Provision and, accordingly, its evaluation of each section 126(b) petition is tied to its interpretation and implementation of the Good Neighbor Provision. Once a petition is granted, the offending source must cease operations within three months unless it complies with EPA-mandated “emission limitations.” 42 U.S.C. § 7426(c).

## **B. Regulatory History**

In 2011 the EPA issued the Cross-State Air Pollution Rule (CSAPR), which placed emission limitations on upwind states that violated their Good Neighbor obligations with respect to the 1997 and 2006 fine particulate matter NAAQS and the 1997 ozone NAAQS. *See* Federal Implementation Plans: Interstate

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<sup>2</sup> Although § 7426(b) refers to any emission “in violation of the prohibition of section 7410(a)(2)(D)(ii),” we have held that this cross-reference is a scrivener’s error and should be read to refer to the Good Neighbor Provision in § 7410(a)(2)(D)(i). *See Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1040–44 (D.C. Cir. 2001) (*per curiam*).



Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208 (Aug. 8, 2011). To account for the revised ozone NAAQS, the EPA promulgated an update to the CSAPR in 2016. *See* Cross-State Pollution Rule Update for the 2008 Ozone NAAQS, 81 Fed. Reg. 74,504 (Oct. 26, 2016) [hereinafter Update Rule]. The Update Rule finalized FIPs to address twenty-two states' Good Neighbor obligations with respect to the more-stringent 2008 ozone NAAQS. Substantively, the Update Rule established further limits on ozone season<sup>3</sup> NO<sub>x</sub> emissions from electric generating units (EGUs) in those states. *Id.* at 74,507. To quantify the necessary reductions, the EPA applied a four-step framework.

At Step One, the EPA considered current and modeled future air quality data at downwind monitors (i.e., receptors) to identify areas expected to have trouble attaining or maintaining the 2008 ozone NAAQS. *Id.* at 74,517. The EPA utilized a monitoring site's earlier "design values"—a three-year historical average of a receptor's air quality data—to generate multiple ozone-level projections for 2017. *Id.* at 74,532. With the 2008 ozone NAAQS of 75 ppb, any receptor with a projected design value of less than 76 ppb was determined to be in attainment. *See id.* A receptor was designated nonattainment if its average projected design value and its most recent monitored design value (2013–2015) equaled or exceeded 76 ppb. *Id.* In addition, the EPA defined a "maintenance" receptor as any site that is currently in

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<sup>3</sup> The ozone season runs May 1 through September 30. *See* Update Rule, 81 Fed. Reg. at 74,507. "Ozone levels are generally higher during the summer months" because "[t]he potential for ground-level ozone formation increases during periods with warmer temperatures and stagnant air masses." *Id.* at 74,513. Reducing emissions during this timeframe is thus a critical component of the EPA's regulatory approach.

attainment but has a projected average design value that exceeds the NAAQS, or that has an average design value below the NAAQS but a maximum projected design value of 76 ppb or greater. *Id.*

At Step Two, the EPA identified the upwind states “linked” to nonattainment or maintenance at downwind monitors. *Id.* at 74,518. First, the EPA calculated each state’s contribution to downwind ozone formation. Next, because the Good Neighbor Provision prohibits only those emissions that “contribute significantly to nonattainment” or “interfere with maintenance,” the EPA screened out upwind states that contributed less than one per cent of the 2008 ozone NAAQS (i.e., 0.75 ppb) to ozone formation in a downwind state. *Id.* at 74,537. Simply put, only those “States . . . whose contributions to a specific receptor meet or exceed the screening threshold are considered linked to that receptor.” *Id.*

At Step Three, the EPA applied a multifactor test—considering cost, NO<sub>x</sub> reduction potential, and downwind air quality impacts—to quantify the magnitude of the emission reductions required by the Good Neighbor Provision. *Id.* at 74,519. The EPA measured the expected reductions at different cost-control levels: \$800/ton, \$1,400/ton, \$3,400/ton, \$5,000/ton, and \$6,400/ton. *Id.* at 74,540–42. “Each level . . . represents an estimated marginal cost per ton of NO<sub>x</sub> reduced and is characterized by a set of pollution control measures.” *Id.* at 74,540. For each cost-control level, the EPA also estimated corresponding air quality improvements at downwind receptors. It ultimately concluded that a control cost of \$1,400 per ton—which represents turning on and fully operating existing, idled selective catalytic reduction controls—constituted the point “at which incremental EGU NO<sub>x</sub> reduction potential and corresponding downwind ozone air quality improvements are maximized with respect to marginal

cost.” *Id.* at 74,550. The EPA then quantified each state’s emissions “budget” by projecting the emissions that would occur under \$1,400 per ton cost controls. *Id.* at 74,553. Emissions that can be reduced at or below the selected control level are considered “significant” for purposes of Good Neighbor compliance. *See* EPA Br. 10.

Finally, at Step Four, the EPA implemented an allowance trading program to achieve the required emission reductions. *See* Update Rule, 81 Fed. Reg. at 74,521. Each state receives an allocation of individual allowances authorizing the emission of a designated quantity of ozone season NO<sub>x</sub>. *Id.* at 74,554. The total allowances equal that state’s emissions budget and are allocated among sources in that state. Because allowances can be bought and sold through market transactions, sources can emit more NO<sub>x</sub> than otherwise permitted by purchasing additional allowances. *Id.* Each state, however, can emit no more than 121 per cent of its emissions budget. *Id.*

Importantly, the Update Rule was promulgated as a partial remedy. Because downwind states with a moderate nonattainment classification faced a July 2018 attainment deadline, the EPA focused solely on near-term emission reductions. *See id.* at 74,540 (“[T]he EPA limited its analysis of potential NO<sub>x</sub> reductions in each upwind state to those that could be feasibly implemented for the 2017 ozone season, which is the last full ozone season prior to the July 20, 2018 attainment date.”). Accordingly, analysis of further controls was anticipated “in any future action that may be necessary to address upwind states’ full emission reduction obligations with respect to the 2008 ozone standard.” *Id.* A number of parties challenged the Update Rule and we invalidated it in part. *See Wisconsin v. EPA*, 938 F.3d 303, 309 (D.C. Cir. 2019) (per curiam). Because upwind states could continue to significantly contribute to downwind air quality beyond the downwind

attainment deadline, we concluded the Update Rule was inconsistent with the Clean Air Act, which “require[s] upwind States to eliminate their significant contributions in accordance with the deadline by which downwind States must come into compliance with the NAAQS.” *Id.* at 313.

In December 2018, the EPA promulgated the Close-Out Rule. *See* Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard, 83 Fed. Reg. 65,878 (Dec. 21, 2018) [hereinafter Close-Out Rule]. The Close-Out Rule found that, for the 2008 ozone NAAQS, it was not feasible to implement cost-effective emissions controls before 2023—two years after the 2021 attainment deadline for serious areas—and, moreover, that all downwind states would attain the NAAQS by 2023 even without further upwind emission reductions. *Id.* at 65,904–05, 65,917. Due in part to its finding that regionwide NO<sub>x</sub> emissions had declined twenty-one per cent in the Update Rule’s first year, *id.* at 65,899, the EPA concluded that the Update Rule fully resolved the Good Neighbor obligations for twenty upwind states, *id.* at 65,879. We vacated the Close-Out Rule because it relied on the same statutory interpretation of the Good Neighbor Provision that *Wisconsin* rejected. *New York v. EPA*, 781 F. App’x 4 (D.C. Cir. 2019) (*per curiam*).

### **C. Procedural History**

In 2016, Maryland and Delaware both filed section 126(b) petitions with the EPA. Maryland’s sole petition alleged that thirty-six EGUs, in “five upwind states that EPA ha[d] already determined are significantly contributing to Maryland’s ozone problem,” were violating the Good Neighbor Provision with respect to the 2008 ozone NAAQS. Md. Cover Ltr at 1 (J.A. 48). According to Maryland, 2015 ozone season monitoring data demonstrated that these units either were not optimizing

their existing controls or had ceased running these controls regularly during the ozone season. Md. Pet. at 4–5 (J.A. 53–54). Contending that the EPA’s regional cap-and-trade approach did not prevent sources from emitting above achievable limits on particularly bad ozone days, *id.* at 3 (J.A. 52), Maryland requested source-specific limitations that would require the “targeted EGUs to run their existing NO<sub>x</sub> control technology effectively on each day of the ozone season,” *id.* at 4 (J.A. 53).

Delaware submitted four petitions, each addressing a different upwind facility. All four petitions requested a finding that EGUs at the named facilities violated the Good Neighbor Provision with respect to both the 2008 and 2015 NAAQS. Delaware alleged that three of the facilities were not optimizing their existing controls. The fourth facility—the Brunner Island power plant in Pennsylvania (Brunner Island)—did not have catalytic controls installed. It was, however, then in the process of adding natural gas capacity. Delaware maintained that Brunner Island’s continued ability to burn coal warranted the imposition of short-term NO<sub>x</sub> emission limits and asked the EPA to impose an enforceable requirement that Brunner Island burn only natural gas. Del. Brunner Island Pet. at 20, 22 (J.A. 238, 240).

Although section 126(b) requires the EPA to act within sixty days after receipt of a petition, the EPA sought to extend its deadline by six months pursuant to 42 U.S.C. § 7607(d)(10). But the EPA failed to hold a public hearing or otherwise act on Maryland’s petition by the new deadline. Maryland filed suit and the United States District Court for the District of Maryland ordered the EPA to “sign a notice taking final agency action on Maryland’s petition on or before September 15, 2018.” *Maryland v. Pruitt*, 320 F. Supp. 3d 722, 732 (D. Md. 2018). The EPA proposed to deny the Maryland and Delaware

petitions on June 8, 2018, *see* Response to Clean Air Act Section 126(b) Petitions from Delaware and Maryland, 83 Fed. Reg. 26,666 (June 8, 2018) and finalized the denials on October 5, 2018, *see* Response to Clear Air Act Section 126(b) Petitions from Delaware and Maryland, 83 Fed. Reg. 50,444 (Oct. 5, 2018) [hereinafter Response to Delaware and Maryland].

The EPA, using the same four-step Good Neighbor framework it applied in the Update Rule, concluded that neither Maryland nor Delaware could establish a Good Neighbor violation. First, the EPA determined that Maryland satisfied Steps One and Two because the EPA modeled a 2017 maintenance problem at Maryland's Harford County receptor for the 2008 ozone NAAQS and the upwind states named in Maryland's petition are linked to that receptor according to the EPA's contribution modeling. *Id.* at 50,464. Maryland's petition failed, however, at Step Three. Maryland requested that EGUs be required to operate and optimize existing catalytic controls.<sup>4</sup> But, because this same control strategy was already reflected in the Update Rule's emissions budgets, the EPA determined that "all identified cost-effective emission reductions have already been implemented for the 2008 ozone NAAQS with respect to the" identified sources. *Id.* This was so, the EPA said, based on both "a conceptual case as to why those reductions will be achieved through the [Update Rule's] existing allowance trading program, and an evidence-based case that reductions based on control optimization [were] already achieved in 2017." *Id.* at 50,462.

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<sup>4</sup> Catalytic and non-catalytic controls both involve injecting a reagent into an exhaust flue, where it reacts with NO<sub>x</sub> to produce molecular nitrogen and water. As their names suggest, catalytic controls facilitate this reaction with a catalyst. Non-catalytic controls do not. *See Appalachian Power Co. v. EPA*, 135 F.3d 791, 798 nn.7–8 (D.C. Cir. 1998) (per curiam).

As for EGUs operating selective non-catalytic reduction controls, the EPA concluded “that fully operating with [non-catalytic controls] is not a cost-effective NO<sub>x</sub> emissions reduction strategy for these sources.” *Id.* at 50,469. Although Maryland submitted a comment asking the EPA to assess its petition under the 2015 ozone NAAQS, the EPA declined to do so, finding that Maryland’s petition had requested a decision with respect to the 2008 ozone NAAQS only. *Id.* at 50,463.

The EPA denied Delaware’s petitions at Steps One and Two and, in the alternative, at Step Three. First, Delaware failed to satisfy its purported burden under section 126(b) to demonstrate “that there is a current or future nonattainment or maintenance problem in Delaware based on violations of the [2008 or 2015 ozone] NAAQS, [or that the named sources are improperly impacting downwind air quality on days when such violations would be expected.” *Id.* at 50,457. Delaware’s identification of individual exceedances (i.e., an eight-hour measurement above the NAAQS) at its own monitors was insufficient because the EPA considers “[v]iolations, rather than exceedances” as “the relevant metric for identifying nonattainment and maintenance problems.” *Id.* at 50,456. Nor did the fact that areas of Delaware were designated nonattainment for the 2008 NAAQS indicate, by itself, that the State would have future attainment problems. *Id.* Under the EPA’s interpretation of the Good Neighbor Provision, if a downwind state will attain the NAAQS without further upwind reductions, there is no air quality problem necessitating additional emission limitations. Otherwise, the EPA would over-control upwind states by imposing limitations on emissions that do not significantly contribute to downwind nonattainment. *Id.* For this reason, although commenters identified Delaware monitors that were currently exceeding the 2015 ozone NAAQS, the commenters failed to “identify any projected air quality violations in a future year associated with

the relevant attainment dates.” *Id.* Commenters also identified monitors in the Philadelphia-Wilmington-Atlantic City nonattainment area that were violating the 2008 and 2015 ozone NAAQS. Because Delaware’s New Castle County is included in this multistate area, the commenters argued that “Delaware’s attainment of the ozone NAAQS is tied to the attainment of the other monitors in the nonattainment area.” *Id.* at 50,460. But the EPA interpreted section 126(b) to authorize findings only with respect to downwind receptors within the petitioning state and, accordingly, declined to consider these data. *Id.*

Although the EPA found Delaware’s conclusions unsupported and technically deficient, *id.* at 50,456, it nevertheless proceeded to analyze independently Delaware’s petitions at Step One. Relying on the modeling it conducted in connection with the Update Rule, the EPA determined that Delaware was not projected to have any nonattainment or maintenance receptors with respect to the 2008 ozone NAAQS and its most recent design values were not to the contrary. *Id.* at 50,458. And, although the modeling evinced air quality problems in Delaware for the 2015 ozone NAAQS, the EPA deemed upwind control unnecessary because it projected Delaware to attain the 2015 ozone NAAQS by 2023. *Id.* at 50,459. Even though Delaware is first subject to the 2021 marginal nonattainment deadline,<sup>5</sup> the EPA determined that 2023 is in fact the relevant future analytic year because it is the

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<sup>5</sup> New Castle County was designated as marginal nonattainment for the 2015 ozone NAAQS given its inclusion in the Philadelphia-Wilmington-Atlantic City multistate nonattainment area. *See* Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 Fed. Reg. 25,776, 25,794 (June 4, 2018). The three-year attainment deadline for marginal areas runs from 2018, when the area was designated under the 2015 NAAQS. *See* 42 U.S.C. § 7511(a)(1); *NRDC*, 777 F.3d at 464–66.



last full year that will inform analysis of the 2024 moderate attainment deadline—the first deadline requiring downwind states to implement controls on existing sources. *Id.* at 50,461.

Notwithstanding the EPA’s denial of Delaware’s petitions at Step One, it found, in the alternative, that Step Three constituted an independent basis for denial. Three of Delaware’s petitions pertained to sources with catalytic controls. As with Maryland’s petition, the EPA determined that emission reductions associated with the operation of catalytic controls were already implemented through the Update Rule. *Id.* at 50,465. Delaware’s Brunner Island petition also failed to show that the facility “emits or would emit in violation” of the Good Neighbor Provision. *Id.* at 50,470. Brunner Island primarily burned natural gas during the 2017 ozone season, achieving emission reductions consistent with Delaware’s proposed control strategy. *Id.* at 50,470–71. Accordingly, the EPA concluded that “no additional feasible and cost-effective NO<sub>x</sub> emissions reductions . . . have been identified.” *Id.* at 50,470. And, because the EPA predicted that Brunner Island would continue to burn natural gas for economic reasons, it found that the facility would not emit in violation of its Good Neighbor obligations. *Id.* at 50,471.

Maryland, Delaware, and Citizen Petitioners (collectively, the Petitioners) petition for review, challenging the denial of Delaware’s petitions at Step One of the Good Neighbor framework and the denial of both States’ petitions at Step Three. New York, New Jersey, and New York City<sup>6</sup> intervened

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<sup>6</sup> The EPA recently denied a Section 126 petition from New York on substantially similar grounds. *See* Response to Clean Air Act Section 126(b) Petition from New York, 84 Fed. Reg. 56,058 (Oct. 18, 2019). New York, New Jersey, and New York City have petitioned for review of that denial. *New York v. EPA*, No. 19-1231 (D.C. Cir. filed Oct. 29, 2019).

on behalf of the Petitioners and several power companies intervened in support of the EPA.

We have jurisdiction under the Clean Air Act. *See* 42 U.S.C. § 7607(b)(1). We may reverse any EPA action found to be “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” *Id.* § 7607(d)(9)(A). To determine whether an action is arbitrary and capricious, “we apply the same standard of review under the Clean Air Act as we do under the Administrative Procedure Act.” *Allied Local & Reg’l Mfrs. Caucus v. EPA*, 215 F.3d 61, 68 (D.C. Cir. 2000). In doing so, we must “give an ‘extreme degree of deference’ to the EPA’s evaluation of ‘scientific data within its technical expertise,’ especially where, as here, we review the ‘EPA’s administration of the complicated provisions of the Clean Air Act.’” *Miss. Comm’n on Env’tl. Quality v. EPA*, 790 F.3d 138, 150 (D.C. Cir. 2015) (per curiam) (citation omitted) (first and second quoting *City of Waukesha v. EPA*, 320 F.3d 228, 247 (D.C. Cir. 2003) (per curiam); then quoting *Catawba Cty. v. EPA*, 571 F.3d 20, 41 (D.C. Cir. 2009) (per curiam)). Further, we “review[] the EPA’s interpretation of the Clean Air Act under the familiar two-step framework formulated in *Chevron*, . . . defer[ring] to the EPA’s interpretation if the statutory text is ambiguous and the EPA’s interpretation is reasonable.” *Am. Fuel & Petrochemical Mfrs. v. EPA*, 937 F.3d 559, 574 (D.C. Cir. 2019) (per curiam).

## **II. Denial of Delaware’s Petitions at Step One**

The Petitioners first argue that the EPA arbitrarily denied Delaware’s section 126(b) petitions at Step One. They assert that the EPA impermissibly refused to consider data from an out-of-state receptor and data regarding nonattainment before 2023. The EPA contests both points. In addition, it contends

that, regardless of whether its own analysis was flawed, Delaware bore the burden of proof and failed to meet it.

### **A. Burden of Proof**

We first consider whether the EPA permissibly assigned the burden of proof to Delaware. On this question of statutory construction, we ask only whether the EPA's position reasonably interprets the governing provisions of the Clean Air Act. *See Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837, 842–44 (1984).

We begin with statutory text. Section 126(b) provides that “[a]ny State or political subdivision may petition the Administrator for a finding” of a violation of the Good Neighbor Provision. 42 U.S.C. § 7426(b). Section 126(b) makes clear that the petitioning state must initiate the process. As a general “default rule,” the burden of proof falls “upon the party seeking relief.” *Schaffer ex rel. Schaffer v. Weast*, 546 U.S. 49, 57–58 (2005) (civil litigation). The same rule governs formal proceedings under the Administrative Procedure Act. 5 U.S.C. § 556(d) (“[T]he proponent of a rule or order has the burden of proof.”). And the provision of the Clean Air Act governing section 126(b) proceedings does nothing to displace the default rule. *See* 42 U.S.C. § 7607(d). This strongly suggests that the default rule should apply. *See Astoria Fed. Sav. & Loan Ass’n v. Solimino*, 501 U.S. 104, 108 (1991).

Statutory context reinforces this conclusion. The Clean Air Act requires the EPA to resolve a section 126(b) petition “[w]ithin 60 days after receipt . . . and after public hearing,” 42 U.S.C. § 7426(b), though the EPA may extend the deadline to six months, *id.* § 7607(d)(10). In *New York v. EPA*, 852 F.2d 574 (D.C. Cir. 1988), we held that this compressed timeline supports requiring the petitioning state to bear the burden of

proof. There, three states argued that section 126(b) required the EPA “to take the investigatory steps necessary to determine whether” there was any violation of the Good Neighbor Provision. *Id.* at 578. We rejected this contention that the EPA must itself “conduct whatever data-gathering and research is necessary to either prove . . . or affirmatively disprove” a state’s allegations. *Id.* Given the sixty-day deadline, we thought it “reasonable to conclude that Congress did not intend that the Administrator be required to perform all these duties in such a short period of time.” *Id.*

We recognize that the petitioning states in *New York* sought to compel the EPA to evaluate entire SIPs, whereas Delaware seeks only a finding that individual upwind sources emit excessively. This distinction makes little difference, for any evaluation under the Good Neighbor Provision requires time-intensive research and analysis assessing air quality problems in the petitioning downwind state, the cause of those problems in upwind states, and the cost-effectiveness of possible solutions. As we explained in *New York*, these tasks are at odds with a sixty-day deadline. We therefore hold that the EPA reasonably interpreted section 126(b) to require Delaware to bear the burden of proof.

## **B. Consideration of Out-of-State Monitors**

We now address the EPA’s decision not to consider air quality data from non-attaining receptors outside Delaware, “even if such monitors are located in a multistate nonattainment area that includes [Delaware].” Response to Delaware and Maryland, 83 Fed. Reg. at 50,460. The EPA construes the “petition authority” set out in section 126(b) as “limited to states and political subdivisions seeking to address interstate transport of pollution impacting downwind receptors *within their geographical borders.*” *Id.* (emphasis added).

Delaware and Petitioner-Intervenors assert that section 126(b) plainly authorizes Delaware to petition based on out-of-state monitoring data or, alternatively, that the EPA's statutory interpretation is unreasonable.

Again, we start with the text. *See NRDC v. Browner*, 57 F.3d 1122, 1125 (D.C. Cir. 1995). In relevant part, section 126(b) provides that “[a]ny State or political subdivision may petition the Administrator for a finding that any major source or group of stationary sources emits or would emit any air pollutant in violation of [the Good Neighbor Provision].” 42 U.S.C. § 7426(b). Starting with the premise that “[a]ny State” can file a section 126(b) petition, Delaware contends the EPA's interpretation conflicts with the statute's plain meaning because the text does not “explicitly bar[] a state from petitioning EPA for a finding that a source is affecting downwind receptors in another state.” Del. Br. 19. Delaware's emphasis is misplaced—a liberal construction of “[a]ny State” does not mandate a similarly expansive scope for the petition itself.<sup>7</sup> In other words, that any state can petition the EPA says

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<sup>7</sup> The parties' discussion of *Delaware Department of Natural Resources* is largely beside the point. There, we considered whether an attainment-date extension, which may be granted “[u]pon application by any State,” 42 U.S.C. § 7511(a)(5), required every state in a multistate area to request the extension. Resolving the question at *Chevron* step one, we held that “any State” unambiguously permits EPA to consider an application filed by fewer than all states in a multistate nonattainment area.” *Del. Dep't of Nat. Res.*, 895 F.3d at 99. Here, there is no dispute that a single state within a multistate nonattainment area can file a section 126(b) petition based on air pollution within its own borders. The fact that “any State” was given unambiguous meaning in a different context does not resolve whether “any State” can file a section 126(b) petition to determine whether an upwind source is contributing to air pollution in a different state.

nothing about whether the petitioning state can rely on air quality data from a *different* state to support its requested finding that an upwind source violates the Good Neighbor Provision. Although Delaware construes this silence in its favor, the fact remains that Congress “has [not] directly spoken to the precise question at issue.” *Chevron*, 467 U.S. at 842.

We turn, therefore, to *Chevron* step two, where “we presume that when an agency-administered statute is ambiguous with respect to what it prescribes, Congress has empowered the agency to resolve the ambiguity. The question for a reviewing court is whether in doing so the agency has acted reasonably and thus has ‘stayed within the bounds of its statutory authority.’” *Util. Air Regulatory Grp.*, 573 U.S. at 315 (quoting *City of Arlington v. FCC*, 569 U.S. 290, 297 (2013)). Although we defer to a permissible construction of the Clean Air Act, the EPA’s interpretation must be “reasonable in light of the Act’s text, legislative history, and purpose.” *Allied Local & Reg’l Mfrs. Caucus*, 215 F.3d at 68 (citation omitted).

The EPA primarily argues that statutory context dictates a narrow construction for section 126(b) petitions. First, other Clean Air Act provisions “that contain petition authority . . . expressly allow for *any person* to petition the EPA” whereas section 126(b) is limited to states and political subdivisions. Response to Delaware and Maryland, 83 Fed. Reg. at 50,460 (emphasis added); *see, e.g.*, 42 U.S.C. § 7661d(b)(2). But this observation has little bearing on the question before us. “Any State” plainly includes Delaware and the fact that the section 126(b) petition process is comparatively circumscribed does not mean an otherwise qualified petitioner is thereafter subject to additional, implicit limitations. Next, the EPA contends that “the context of . . . section 126 as a whole suggests these provisions are meant to moderate interstate transport concerns

between *affected* states and upwind sources, not between any third party (even if such party is another state) and upwind sources.” Response to Delaware and Maryland, 83 Fed. Reg. at 50,460 (emphasis added). For example, section 126(a) requires certain upwind sources “to provide written notice to all nearby States the air pollution levels of which may be affected by such source.” 42 U.S.C. § 7426(a)(1). The EPA imports this language into section 126(b), reading in a requirement that the petitioning state be “*directly affected* by upwind pollution.” Response to Delaware and Maryland, 83 Fed. Reg. at 50,460 (emphasis added). And, according to the EPA, Delaware is not “affected” because it has provided no evidence of an in-state air quality problem.

The EPA’s position is unavailing. Although Congress, in section 126(a), referred specifically to “States . . . which may be affected by such [upwind] source,” 42 U.S.C. § 7426(a)(1), it included no analogous limitation in section 126(b). Moreover, it is not at all obvious when a state is “affected.” Indeed, section 126(a) requires a new or modified source to provide written notice if it “may significantly contribute to levels of air pollution in excess of the [NAAQS] in any air quality control region outside” the source’s own state. *Id.* § 7426(a)(1)(B). Because “air quality control regions” include multistate areas, *id.* § 7407(b)(1), (c), it is unclear whether all states in a shared nonattainment area are “affected”—and are therefore owed written notice—regardless of where in the multistate area the offending air pollution is measured. Thus, even accepting the EPA’s proffered interpretation—that only *affected* states may file section 126(b) petitions to protect against violating upwind sources—the same ambiguity arises.

Although statutory context, on its own, does not resolve matters, the EPA also found that “the legislative history for [section 126(b)] suggests the provision was meant to address

adverse air impacts only in the petitioning state.” Response to Delaware and Maryland, 83 Fed. Reg. at 50,460. Its brief foray into the legislative history is, at best, unilluminating. It relies solely on the Conference Report accompanying the Clean Air Act Amendments of 1977, which added section 126. The Senate’s proposed amendment is described in the Report as cabining section 126(b)’s petition authority to findings that an upwind source “adversely affect[s] the air quality in the petitioning State.” H.R. Rep. No. 95-564, at 146 (1977) (Conf. Rep.). This summary language, which the EPA erroneously ascribes to the amendment itself, *see* Response to Delaware and Maryland, 83 Fed. Reg. at 50,460 n.47, does not appear in the enacted text, *see* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 123, 91 Stat. 685, 724. Nor does the EPA suggest this limitation was considered and debated, beyond its brief assertion that “[t]he House concurred with the Senate’s amendment” and, despite making revisions elsewhere, “did not indicate changes to this sentence.” Response to Delaware and Maryland, 83 Fed. Reg. at 50,460 n.47.

Delaware and Petitioner-Intervenors contend that, even if a state must be “affected” in order to file a section 126(b) petition, “upwind emissions that impact non-attaining receptors within a multistate nonattainment area *affect* all of the included states’ air quality . . . , regardless of where the particular non-attaining receptor happens to be located.” Del. Reply Br. 4. First, because ozone and its precursor pollutants are easily transported over large areas, without regard to political boundaries, selectively placed ozone monitors are intended to “serve as proxies for identifying broader air quality problems.” Pet’r-Intervenors Br. 29.<sup>8</sup> Consequently, a

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<sup>8</sup> The EPA objects that Petitioner-Intervenors’ argument was not raised in the comment period and is therefore forfeited. *See* 42 U.S.C. § 7607(d)(7)(B) (“Only an objection . . . raised with reasonable specificity during the period for public comment . . . may



violating monitor anywhere in the shared nonattainment area signals that other locations may face similar problems.

Second, for states in a shared nonattainment area, out-of-state receptors can cause very real regulatory consequences. Because a nonattainment area includes “any area . . . that contributes to ambient air quality in a nearby area that does not meet” the ozone NAAQS, 42 U.S.C. § 7407(d)(1)(A)(i), a state’s attainment status is necessarily linked to all other states comprising the multistate area. A non-attaining receptor anywhere in the multistate area causes the entire area to be designated nonattainment and, in turn, the states must coordinate a collective response irrespective of the offending monitor’s location. *See id.* § 7511a(j)(1). Thus, Delaware and Petitioner-Intervenors attack the EPA’s notion that considering monitoring data from outside the petitioning state would impermissibly “allow states to act in the role of citizen attorneys general on behalf of other states.” EPA Br. 39. They maintain that, to the contrary, a state acts on its own behalf when it raises a shared nonattainment problem because its *own*

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be raised during judicial review.”). “But the word ‘reasonable’ cannot be read out of the statute in favor of a hair-splitting approach. In other words, the Act does not require that precisely the same argument that was made before the agency be rehearsed again, word for word, on judicial review.” *Appalachian Power Co.*, 135 F.3d at 817–18. In its comments, Delaware argued that its attainment status was tied to the status of the Philadelphia-Wilmington-Atlantic City nonattainment area. *See Del. Cmts.* at 4 (J.A. 345). This is largely the same argument now offered by Petitioner-Intervenors. And because the EPA has “considered the particular challenge raised on judicial review, it is of no import whether that challenge is phrased in exactly the same way in each forum.” *Appalachian Power Co.*, 135 F.3d at 818.

attainment status has been affected by the upwind source. We agree.

The untenability of the EPA's interpretation is clear when we consider its practical effect on the section 126(b) petition process. Section 126(b) permits downwind states to petition for a finding that an upwind source is violating the Good Neighbor Provision, which prohibits emissions that will "contribute significantly to nonattainment in . . . any other State." 42 U.S.C. § 7410(a)(2)(D)(i)(I). There is no dispute that Delaware could file a section 126(b) petition to address an upwind source's contribution to an in-state non-attaining receptor. But, according to the EPA, Delaware has no recourse if its regulatory burden is attributable to a monitor in Pennsylvania, even though Delaware remains bound by the corresponding nonattainment designation. And, because Delaware cannot compel another state to file a section 126(b) petition, it is stuck in regulatory limbo, affected by an upwind source yet unable to avail itself of the intended remedy for addressing upwind contributions to nonattainment.

The EPA's efforts to explain away this incongruity fall flat. First, the EPA contends that "concerns about the impacts of upwind pollution on out-of-state monitors in a shared multistate nonattainment area . . . can be addressed under other statutory processes." Response to Delaware and Maryland, 83 Fed. Reg. at 50,460. But the Clean Air Act creates the section 126(b) petition process as an alternative to the use of implementation plans. *See supra* at 8. Indeed, with respect to the requirements of the Good Neighbor Provision and section 126, "the EPA has consistently acknowledged that Congress created these provisions as two independent statutory processes to address the problem of interstate pollution transport." Response to Delaware and Maryland, 83 Fed. Reg. at 50,452. The EPA cannot ignore section 126(b)'s standalone remedy

simply because it has other regulatory options at its disposal. Next, the EPA asserts that Delaware's obligations as a member of a multistate nonattainment area should have no bearing on the EPA's interpretation of section 126(b). Granted, "[p]ortions of Delaware were included in the Philadelphia nonattainment area because . . . those portions were themselves contributing to the air quality problems in Pennsylvania." *Id.* at 50,460. But, contrary to the EPA's characterization, Delaware is not trying to "relieve [itself] . . . of the specific planning obligations associated with its inclusion in an area designated nonattainment." *Id.* Rather, it asks merely that upwind sources contributing to air quality problems in the multistate nonattainment area shoulder a comparable regulatory burden, as the section 126(b) petition process contemplates.

In sum, states in a multistate nonattainment area share not only a nonattainment designation but also the concomitant responsibility to limit their own emissions. To equalize the burdens between upwind and downwind states, the Clean Air Act authorizes a state to petition the EPA for a finding that upwind emissions significantly contribute to that state's nonattainment of the ozone NAAQS. But, under the EPA's interpretation, a state cannot file a section 126(b) petition if its nonattainment status is caused by a receptor outside its political boundaries, even as the state remains burdened by the corresponding regulatory obligations. It is arbitrary for the EPA to subject states like Delaware to this burden while denying access to the intended remedy. *Cf. Catawba Cty.*, 571 F.3d at 39 ("[S]tatutory interpretation that is arbitrary and capricious is unreasonable under *Chevron* step two." (citing *Northpoint Tech., Ltd. v. FCC*, 412 F.3d 145, 151 (D.C. Cir. 2005))). We therefore conclude that the EPA's interpretation of section 126(b) is unreasonable, at least if the petition involves "monitors . . . located in a multistate nonattainment

area that includes the petitioning state.” Response to Delaware and Maryland, 83 Fed. Reg. 50,460. Accordingly, the EPA could not ignore Delaware’s evidence of non-attaining receptors in the Philadelphia-Wilmington-Atlantic City nonattainment area.

### **C. Selection of Year to Measure Air Quality**

We next consider a question of timing: In evaluating a section 126(b) petition at Step One, for what year must the EPA assess nonattainment in the downwind state? The Petitioners argue that the EPA must focus on current nonattainment or, at a minimum, nonattainment at the next future attainment deadline applicable to the petitioning downwind state. We disagree with the Petitioners on the first point, but we agree with them on the second.

#### **1. Current Nonattainment**

The Petitioners contend that current nonattainment is enough to satisfy Step One. The EPA responds that section 126(b), like the Good Neighbor Provision, concerns only nonattainment that will last into the future. Again, the EPA’s interpretation of the statute is reasonable.

Section 126(b) requires a finding on whether an upwind source “emits or would emit” a pollutant in violation of the Good Neighbor Provision. 42 U.S.C. § 7426(b). By cross-referencing the Good Neighbor Provision, “Congress clearly hinged the meaning of § 126 on that of” the Good Neighbor Provision. *Appalachian Power Co. v. EPA*, 249 F.3d 1032, 1049–50 (D.C. Cir. 2001) (per curiam). As a result, “the substantive inquiry for decision is the same” under both provisions. *Id.* at 1047 (quotation marks omitted).

The Good Neighbor Provision requires SIPs to prohibit any in-state source “from emitting any air pollutant in amounts which will . . . contribute significantly to nonattainment in, or interfere with maintenance by, any other State with respect to any [NAAQS].” 42 U.S.C. § 7410(a)(2)(D)(i). In determining the temporal scope of this rule, the key word is “will.” In *North Carolina v. EPA*, 531 F.3d 896 (D.C. Cir.) (per curiam), *modified on reh’g in part*, 550 F.3d 1176 (D.C. Cir. 2008), we held that the EPA reasonably construed “will”—which denotes the future tense—to limit the Good Neighbor Provision to downwind air quality problems (of nonattainment or maintenance) that are currently present and will continue into the future. *See id.* at 913–14.

*North Carolina* resolves the question presented here. Section 126(b) requires a finding on whether an emission causes a violation of the Good Neighbor Provision. And an upwind source that currently contributes to downwind air quality problems, but that will not contribute to these problems in the future, does not cause such a violation. Thus, in its Step One analysis, the EPA permissibly excluded downwind areas that are not currently attaining the NAAQS but that will reach attainment by a relevant future date.

The Petitioners press four counterarguments. *First*, they contend that the EPA’s approach of requiring future nonattainment is inconsistent with inclusion of the present tense in section 126(b), which covers any major source that “emits or would emit” a pollutant in violation of the Good Neighbor Provision. But to violate the Good Neighbor Provision, as the EPA has permissibly construed it, the source must contribute to both current and future downwind nonattainment. *See id.* at 914. And if no such violation will materialize, then the fact of current nonattainment is irrelevant.

The Petitioners suggest that the word “will” must take on a different meaning as incorporated into section 126(b) than it does in the Good Neighbor Provision itself, lest the present-tense “emits” be entirely collapsed into the future conditional “would emit.” But statutes are not chameleons, acquiring different meanings when presented in different contexts. *See Clark v. Martinez*, 543 U.S. 371, 382 (2005). If present-only nonattainment does not trigger a violation of the Good Neighbor provision, then it cannot trigger a violation of that same provision as incorporated into section 126(b).

In any event, the EPA’s interpretation does not turn “emits” into surplusage. Sometimes, current emissions do contribute to future nonattainment. For example, the EPA evaluates attainment of ozone standards based on certain concentrations averaged over three consecutive years. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,456. Thus, to predict air quality for 2023, the EPA looks to actual or predicted air quality between 2020 and 2022. So a source that pollutes right now, in 2020, “emits” pollutants that “will contribute” to pollution levels—and possibly nonattainment—for 2023. That gives “emits” independent meaning.

*Second*, the Petitioners argue that *North Carolina* itself rejected the EPA’s current reading of section 126(b). After holding that the EPA could permissibly construe the Good Neighbor Provision as focused on future nonattainment, we stated that this “does not mean that EPA may ignore present-day violations for which there may be another remedy, such as relief pursuant to section 126.” 531 F.3d at 914. But *North Carolina* presented no question involving section 126, so our statement about it was dictum. As a consequence, we had no occasion to substantively address this interpretive question.

*Third*, the Petitioner-Intervenors contend that the EPA's interpretation disregards the accelerated enforcement deadlines in section 126. Under the Good Neighbor Provision, implementation plans must ensure that upwind states do not contribute significantly to downwind nonattainment at the next future downwind deadline. *See Wisconsin*, 938 F.3d at 313–20. Those deadlines can be three to twenty years in the future. *See* 42 U.S.C. § 7511(a)(1). In contrast, section 126 gives upwind sources only three months, extendable to three years, to eliminate significant contributions after the EPA finds a violation of the Good Neighbor Provision. *Id.* § 7426(c). The petitioner-intervenors argue that this shortened enforcement horizon reflects heightened concern with current nonattainment. They are right that section 126(b) provides for fast remediation, but what is remediated must nonetheless be a violation of the Good Neighbor Provision. And as we have explained, its scope does not change depending on whether enforcement is sought under section 126(b). *See Appalachian Power Co.*, 249 F.3d at 1047.

*Fourth*, the Citizen Petitioners invoke a past section 126(b) finding that they say turns entirely on current nonattainment. In 2011, the EPA granted New Jersey's petition regarding sulfur dioxide emissions from a nearby Pennsylvania power plant. *See* Final Response to Petition from New Jersey Regarding SO<sub>2</sub> Emissions from the Portland Generating Station, 76 Fed. Reg. 69,052, 69,053 (Nov. 7, 2011). Although the EPA had promulgated a sulfur dioxide NAAQS in 2010, it had not yet set future attainment deadlines. But the agency nonetheless granted the petition because the power plant was significantly contributing to current nonattainment. *See id.* at 69,053, 69,058.

The Citizen Petitioners are mistaken to suggest that the EPA's present position is inconsistent with agency precedent.

For several decades, the EPA has consistently interpreted the Good Neighbor Provision to require future nonattainment. *See* Close-Out Rule, 83 Fed. Reg. at 65,889 (discussing past agency actions), *vacated on other grounds, New York*, 781 F. App'x at 4. The agency's treatment of New Jersey's petition fit that pattern. Downwind sulfur dioxide pollution is usually caused by one or a few nearby sources. *See* Data Requirements Rule for the 2010 1-Hour Sulfur Dioxide (SO<sub>2</sub>) Primary National Ambient Air Quality Standard (NAAQS), 80 Fed. Reg. 51,052, 51,057 (Aug. 21, 2015). In the case of the Pennsylvania plant, actual emissions were causing pollution levels more than two times greater than the applicable NAAQS, and otherwise allowable emissions would have caused pollution levels more than seven times greater. *See* Response to Petition from New Jersey Regarding SO<sub>2</sub> Emissions from the Portland Generating Station, 76 Fed. Reg. 19,662, 19,668, 19,672 (Apr. 7, 2011). Because a single source was causing New Jersey to exceed the NAAQS by a wide margin, the EPA could reasonably have concluded that, absent intervention, New Jersey's current nonattainment would persist into the future.

No such extrapolation would be reliable for ozone. Ozone precursors are transported over long distances, so downwind ozone problems often are caused by numerous upwind sources. *See EME Homer City.*, 572 U.S. at 496–97. And ozone concentrations can be significantly affected by meteorological variables. *See* Findings of Significant Contribution and Rulemaking on Section 126 Petitions for Purposes of Reducing Interstate Ozone Transportation, 64 Fed. Reg. 28,250, 28,292 (May 25, 1999). All of this makes predicting future levels for ozone far more complex than doing so for sulfur dioxide. *See Michigan v. EPA*, 213 F.3d 663, 674 (D.C. Cir. 2000) (per curiam). The New Jersey finding thus does nothing to undermine the EPA's position in this case.



## 2. Future Nonattainment

The Petitioners next argue that, looking to the future, the EPA was required to measure air quality in the year that corresponds with the next applicable downwind attainment deadline. We agree.

The Good Neighbor Provision requires upwind states to eliminate excess emissions “consistent with” Title I of the Clean Air Act, which includes the deadlines for downwind states to attain the ozone standards. *See* 42 U.S.C. § 7410(a)(2)(D)(i). As we recently explained in *Wisconsin*, an implementation plan violates the Good Neighbor Provision if it fails to “eliminate upwind States’ significant contributions to downwind pollution by the statutory deadline for downwind States to meet the NAAQS for ozone.” 938 F.3d at 314. Because section 126(b) incorporates the Good Neighbor Provision, the EPA must find a violation if an upwind source will significantly contribute to downwind nonattainment at the next downwind attainment deadline. Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.

In this case, Delaware’s next attainment deadline under the 2015 ozone NAAQS is the deadline for marginal nonattainment areas, which falls in 2021. *See supra* at 16 & n.5. Yet when conducting its analysis of Delaware’s petitions at Step One, the EPA chose to examine the State’s air quality in 2023. This decision cannot be reconciled with the Good Neighbor Provision as we construed it in *Wisconsin*.

The EPA’s responses are unpersuasive. It argues that marginal nonattainment areas often achieve the NAAQS without further downwind reductions, so it would be unreasonable to impose reductions on upwind sources based on the next marginal attainment deadline. Nonetheless, Delaware

must achieve attainment “as expeditiously as practicable but not later than” 2021, 42 U.S.C. § 7511(a)(1), so upwind sources violate the Good Neighbor Provision if they will significantly contribute to Delaware’s failure to meet that deadline. *See Wisconsin*, 938 F.3d at 314. The EPA adds that if Delaware’s marginal area fails to reach attainment by 2021, it will be automatically bumped up to a moderate nonattainment status and then subjected to a 2024 deadline. *See* 42 U.S.C. § 7511(b)(2). But that does not make Delaware’s obligation to attain the NAAQS by 2021 any less binding. And an upgrade from a marginal to a moderate nonattainment area carries significant consequences, such as a requirement to provide for annual emissions reductions in SIPs. *See id.* § 7511a(b). So long as upwind sources significantly contribute to Delaware’s nonattainment at its 2021 attainment deadline, they violate the Good Neighbor Provision.

#### **D. Whether Delaware Carried Its Burden**

In sum, here is the basic legal framework for analysis of Delaware’s section 126(b) petitions at Step One. First, Delaware bore the burden to prove a violation of the Good Neighbor Provision. Second, the EPA was required to consider data from out-of-state receptors in the Philadelphia-Wilmington-Atlantic City Attainment Area, which includes parts of Delaware. Third, the EPA was not required to consider downwind areas reflecting only current nonattainment, but it was required to consider areas reflecting nonattainment both currently and at the next attainment deadline. Applying these rules, we conclude that the EPA’s decision to reject Delaware’s petitions at Step One was arbitrary with respect to petitions under the 2008 ozone standards, but not with respect to petitions under the 2015 ozone standards.

## 1. 2008 NAAQS

In its petitions under the 2008 NAAQS, Delaware failed to identify any receptor connected to the State showing current or future nonattainment. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,456. The petitions simply noted the number of days that air pollution levels in the State had exceeded the NAAQS. *See* Del. Conemaugh Pet. at 3 (J.A. 160); Del. Homer City Pet. at 3(J.A. 193); Del. Brunner Island Pet. at 3 (J.A. 221); Del. Harrison Pet. at 3 (J.A. 248). But the EPA measures nonattainment based on the fourth-highest daily maximum ozone concentration, averaged across three consecutive years. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,456. Delaware's petitions failed to provide that information and thus failed to carry the State's burden of proof at Step One.

Delaware provided additional information in its comments responding to the EPA's proposed denial of its petitions.<sup>9</sup> Specifically, it highlighted data from a receptor in Bristol, Pennsylvania that was part of the Philadelphia-Wilmington-Atlantic City attainment area. The EPA declined to consider this data because it came from an out-of-state receptor. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,456. As explained above, that decision was arbitrary and capricious. The EPA makes no suggestion that, had it considered data from the Bristol receptor, it still might have concluded that Delaware failed to carry its burden at Step One. We therefore hold that Delaware carried its burden.

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<sup>9</sup> The EPA has not argued that Delaware forfeited reliance on this information by failing to offer it in its petitions.

## **2. 2015 NAAQS**

In its petitions under the 2015 NAAQS, Delaware also failed to provide data showing any current or future nonattainment. In its comments on the EPA's proposed denial, Delaware showed current nonattainment at both the Bristol monitor and an in-state monitor in New Castle. Del. Cmts. at 4, 10 (J.A. 345, 351). But Delaware offered no data showing nonattainment at either monitor in 2021, the deadline for both areas under the 2015 NAAQS. *Id.* at 4, 10 (J.A. 345, 351). Because Delaware failed to show that upwind sources will significantly contribute to nonattainment at its next future deadline, it failed to carry its Step One burden. *See Wisconsin*, 938 F.3d at 314.

After rejecting Delaware's petitions on this ground, the EPA went on to conduct its own independent analysis of future attainment, which erroneously considered pollution levels in 2023 rather than 2021. But because the EPA independently rested its decision on Delaware's failure to carry its burden of proof, the agency's error on this point was harmless.

## **III. Denial of All Petitions at Step Three**

Having concluded our review at Step One of the EPA's Good Neighbor framework, we proceed to Step Three: the identification of cost-effective reductions at the named sources. On this front, the parties have separate disputes with respect to the sources that have catalytic controls; the sources that have non-catalytic controls; and the one facility, Brunner Island, with neither. We take each in turn.

### **A. Catalytic Controls**

Delaware's three petitions not related to Brunner Island involve sources that, the State claims, are failing to optimize

their catalytic controls. Similarly, thirty-two out of the thirty-six sources in Maryland's petition have catalytic controls that the State says they are failing to optimize. The EPA concluded in the Update Rule that such optimization is a cost-effective strategy for reducing NO<sub>x</sub> emissions. This, Petitioners say, is more or less the ball game. If optimization is the measure of Good Neighbor compliance, and if the named sources are failing to optimize, then it necessarily follows that those sources are not currently in compliance with the Good Neighbor Provision.

The EPA offered two answers in its denial. First, it said, the latest data showed that “the control optimization and the emission reductions anticipated from the [Update Rule] *are* being realized from the 34 units with [catalytic controls].” Response to Delaware and Maryland, 83 Fed. Reg. at 50,465 (emphasis added). Second, it explained, “even in the event of any single-unit variation in performance, the overall reductions [attributable to optimization] are occurring within the same airshed due to the fact that state budgets and assurance levels were set to ensure those reduction levels statewide and regionwide” through the Update Rule's trading program. *Id.* at 50,466. In other words, the logic of a cap-and-trade program is that not all sources will reduce their individual emissions to the same extent. We uphold the EPA's first answer as reasonable and do not address the second.

The parties disagree about how to tell if any given source is optimizing its controls. (No one has knocked on the plants' doors to see for themselves.) How high do a source's emissions need to be before we can conclude that it is failing to optimize? For purposes of the Update Rule, the EPA concluded that optimizing catalytic controls would result in an average NO<sub>x</sub> emissions rate of 0.10 lb/mmBtu. Update Rule, 81 Fed. Reg. at 74,543. That figure was based on the third-best average

performance of the covered sources between 2009 and 2015, a choice we upheld in *Wisconsin* over the objection that the EPA should have chosen an even lower figure. 938 F.3d at 320–21.

Now suppose a source is found emitting above the EPA’s estimated average—at 0.11 lb/mmBtu, for instance—after the Update Rule. Is the source failing to optimize? Petitioners seem to think so. *See, e.g.*, Md Br. 29; Citizen Pet’rs Br. 16–17; Pet’r-Intervenors Br. 46–47. But the EPA explains why that may not be so:

The optimized rate for any particular unit depends on the unit-specific characteristics, such as boiler configuration, burner type and configuration, fuel type, capacity factor, and control characteristics such as the age, type, and number of layers of catalyst and reagent concentration and type.

Response to Delaware and Maryland, 83 Fed. Reg. at 50,466 n.62. As a result, the bare fact that a source emits above 0.10 lb/mmBtu is equivocal. It could be evidence that the source is not optimizing, or it could be evidence that that particular source’s optimized rate is higher than average.

In that light, the EPA approached the question from the opposite direction: What sorts of rates are likely to result if a source does *not* consistently operate its catalytic controls? The agency pegged that figure at 0.20 lb/mmBtu, a rate that sources can usually hit by operating only their combustion controls. *See id.*<sup>10</sup> And as the agency observed, virtually all of the

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<sup>10</sup> Of course, any threshold the agency chose would present a trade-off. Short of determining each source’s true optimized rate, an undertaking in some tension with the general principle that section 126 allocates the initial evidentiary burden to Petitioners, *see supra* Part II.A, the EPA could not avoid either under- or over-inclusion.

sources equipped with catalytic controls nationwide beat that mark in 2017, after the Update Rule went into effect, “including every unit with [catalytic controls] named in Delaware’s and Maryland’s petitions.” *Id.* at 50,466. The remaining few either achieved as much based on preliminary 2018 data, are not located in the states targeted by the petitions, or have since retired. *See id.*

Maryland and Citizen Petitioners do not respond directly to the EPA’s explanation for applying a 0.20 lb/mmBtu rule of thumb, as opposed to the 0.10 lb/mmBtu average it articulated in the Update Rule. But they mount a further argument that these particular sources are not achieving their individual optimized rates because they have performed more efficiently in the past. In particular, the Petitioners calculated the “highest 30-day rolling average rate of emissions experienced by [each] source during its best ozone season,” Md. Br. 23, and argue that the EPA should have required sources to match that performance. The trouble with this argument is that it mirrors one we rejected in *Wisconsin*. There, in choosing to look to each source’s *third*-best ozone season for purposes of the Update Rule, the EPA explained that sources’ very best rates are not, in the main, consistently achievable. *See Wisconsin*, 938 F.3d at 320–21; Update Rule, 81 Fed. Reg. at 74,544. Having found EPA’s reasoning on that question reasonable once, we do so again here.

Delaware’s objection is somewhat different. The State acknowledges EPA’s use of the 0.20 lb/mmBtu threshold, but points out that some of the named sources emitted above that mark on individual days of the ozone season. *See Del. Br.* 30–31. Since the EPA bases attainment on daily concentrations, not seasonal emissions, Delaware argues that the EPA should likewise control daily emissions to avoid the possibility that sources will idle their controls on days with high electricity

demand. We did not have the occasion to consider the Update Rule's reliance on a seasonal cap in *Wisconsin*, since no party challenged that decision there. But as the EPA explained here, there appears to be "very little difference" between "NO<sub>x</sub> rates for EGUs for hours with high energy demand" and "seasonal average NO<sub>x</sub> rates." Response to Delaware and Maryland, 83 Fed. Reg. at 50,466. In other words, Delaware's concern makes sense but has not been observed in practice. The EPA also noted that there may be valid operational reasons not to operate catalytic controls on particular days, "e.g., to avoid damaging or plugging of the [control] or taking a forced outage where a breakdown leaves the unit unavailable to produce power." *Id.* at 50,466-67. As a result, that a source ends up emitting above 0.20 lb/mmBtu on a particular day is not necessarily evidence of a failure to optimize. The EPA's explanation was reasonable.<sup>11</sup>

## **B. Non-Catalytic Controls**

We now turn to the next control strategy at issue. Maryland contends that the four electric generating units in its petition that do not have catalytic controls should be required to operate their non-catalytic controls. Maryland argues that the EPA cannot rely on the Update Rule's conclusion that such controls are not cost-effective in light of our decision in *Wisconsin*. We agree, and because we do not read the denial

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<sup>11</sup> Maryland argues, relatedly, that the Clean Air Act itself requires daily limits—that a seasonal cap is not a valid "emission limitation" within the meaning of the statute because it does not "limit[] the quantity, rate, or concentration of emissions of air pollutants on a continuous basis." 42 U.S.C. § 7602(k). But Maryland did not present this interpretive claim in its comments; it said only that daily limits would be a good idea. *See* Md. Reply Br. 6 (citing Md. Cmts. at 6, 11, 39, 45 (J.A. 290, 295, 323, 329)). The argument is therefore forfeited. *See* 42 U.S.C. § 7607(d)(7)(B).



to have offered an adequate argument in the alternative, we remand it to the agency with respect to this issue.

The EPA explained concisely its conclusion that operating non-catalytic controls at these sources would not be cost-effective. The Update Rule, the agency said, had already concluded as much on a regional level. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,469–70. And there was no reason to think these sources were any different, it continued, because the units identified “are relatively small in size and have low emission levels, indicating that the units have a relatively limited ability to substantially reduce NO<sub>x</sub> emissions.” *Id.* at 50,470.

We cannot endorse this explanation after *Wisconsin*. There, we concluded that the Update Rule was impermissibly “partial.” *Wisconsin*, 938 F.3d at 318. As relevant here, in choosing a cost-effectiveness threshold, the Update Rule did not consider control strategies that could not have been implemented in time for the 2017 ozone season. *Id.* at 313. As the EPA concedes, the agency’s judgment about the cost-effectiveness of non-catalytic controls may change when it conducts a new comparative analysis in response to the *Wisconsin* remand. *See* Recording of Oral Arg. at 35:06; *accord* Close-Out Rule, 83 Fed. Reg. at 65,898 (acknowledging that the EPA could have revisited the Update Rule’s conclusion about non-catalytic controls in the Close-Out Rule if it had found a continuing air quality problem). In that light, the EPA cannot rely mechanically on the Update Rule for the proposition that non-catalytic controls are not cost-effective. And the denial does not seriously suggest that its brief discussion of these particular units amounted to a standalone cost-effectiveness analysis. *See* EPA Br. 78 (suggesting only that the EPA “reviewed the specific emissions

levels of the named sources to determine if anything had changed” since the Update Rule was promulgated).

We recognize that *Wisconsin* does not imply that non-catalytic controls *are* cost-effective—or even that the EPA, on remand, will choose a different cost threshold than the one it originally did.<sup>12</sup> Indeed, Counsel suggested at argument that the EPA’s judgment about non-catalytic controls “probably” would not change. *See* Recording of Oral Arg. at 52:29. But under the familiar rule of *SEC v. Chenery Corp.*, 318 U.S. 80 (1943), we must review an agency’s action on the basis of reasons it actually gave, not ones it hypothetically could. And while there are gestures in the denial at an alternative argument that Petitioners bear the burden to establish that a control is cost-effective at Step Three (and failed to do so here), the EPA ultimately based its decision on its own conclusion that non-catalytic controls are not cost-effective. In that light, we need not decide what burden a petitioner may have to show cost-effectiveness.<sup>13</sup>

### C. Brunner Island

Finally, we address Delaware’s Brunner Island petition. Brunner Island, which has installed neither catalytic nor non-catalytic controls, added natural gas capacity to augment—and eventually replace—its coal-firing generation units. Delaware argues that voluntary conversion is not enough and that the EPA must affirmatively prohibit the facility from burning coal.

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<sup>12</sup> *Cf. Michigan*, 213 F.3d at 680 (noting that EPA’s “selection of the cut-off point [is] essentially unbounded,” given the sense in which we have permitted the agency to consider cost-effectiveness).

<sup>13</sup> Given the possible alternative rationales identified by the EPA, we do not vacate the denial. *See Allied-Signal, Inc., v. U.S. Nuclear Regulatory Comm’n*, 988 F.2d 146, 150-51 (D.C Cir. 1993).

The EPA declined to impose the requested limitation, concluding that Brunner Island had not violated its Good Neighbor obligations. The EPA's determination is reasonable.

Brunner Island significantly reduced its pollution footprint by operating primarily on natural gas during the 2017 ozone season. Compared to the 2016 season, NO<sub>x</sub> emissions fell from 3,765 tons to 877 tons, as the emissions rate declined from 0.370 lb/mmBtu to 0.090 lb/mmBtu. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,470–71. In other words, consistent with Delaware's proposed control strategy, Brunner Island utilized its natural gas capabilities to achieve a low NO<sub>x</sub> emissions rate during the 2017 ozone season. Because Delaware did not identify any "additional feasible and cost-effective NO<sub>x</sub> emissions reductions," it could not "demonstrate that, at this current level of emissions, Brunner Island emits in violation of" the Good Neighbor Provision. *Id.* The EPA next explained that favorable natural gas prices, coupled with the incentive for Brunner Island to sell unused emissions allowances, supported its "belie[f that] Brunner Island will continue to primarily use natural gas as fuel during future ozone seasons for economic reasons." *Id.* at 50,471. Thus, Delaware's petition also failed to show that Brunner Island "would emit" in violation of the Good Neighbor Provision.

According to Delaware, the installation of a NO<sub>x</sub> control technology does not, by itself, prevent a future violation of the Good Neighbor Provision. Rather, a corresponding regulatory requirement is necessary to ensure optimal operation and, on this front, "passive market forces are an unacceptable emissions limitation under the [Clean Air] Act." Del. Br. 34. Delaware asserts that the EPA, by crediting Brunner Island's voluntary choice to burn natural gas, contravened section 126(c)'s instruction that a violating source may continue

operating only if it “complies with such emission limitations . . . as may be *provided by the Administrator*.” 42 U.S.C. § 7426(c) (emphasis added). As Delaware sees it, the EPA must affirmatively ensure that Brunner Island maintains its NO<sub>x</sub> reductions in the future. But section 126(c) contemplates EPA-mandated limitations only for “a source referred to in paragraph (2),” *id.*, that is, “any major existing source . . . after such finding has been made with respect to it,” *id.* § 7426(c)(2). And because the requisite finding is one “made under subsection (b),” *id.* § 7426(c)(1), the imposition of limitations under section 126(c) is therefore predicated on finding, under section 126(b), that a source “emits or would emit” in violation of the Good Neighbor Provision, *id.* § 7426(b). Put differently, the remedies to cure a Good Neighbor violation are distinct from whether a violation has occurred in the first place. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,472 (“[T]he EPA only implements federally enforceable limits under step four of the four-step framework for sources that the EPA determines have emissions that significantly contribute to nonattainment or interfere with maintenance of the ozone NAAQS downwind under steps one, two, and three.”). The EPA determined that Brunner Island does not, and would not, emit in violation of the Good Neighbor Provision. Accordingly, it was not required to issue federally enforceable limitations under the Clean Air Act.

Petitioner-Intervenors dispute the EPA’s Good Neighbor determination, alleging that Brunner Island could, at any time, revert to burning coal which, considering its 2016 NO<sub>x</sub> emissions rate of 0.370 lb/mmBtu, proves it “would emit” in violation of the Good Neighbor Provision. *See* Pet’r-Intervenors Br. 48. The EPA concluded such a reversion was unlikely, considering Brunner Island’s strategic decision to invest in natural gas, the economic incentive to burn natural gas and sell unused emission allowances through the NO<sub>x</sub> trading

program, and price projections indicating that natural gas will remain a less expensive fuel source. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,471. The EPA also noted that, pursuant to a settlement agreement, Brunner Island's owner "agree[d] to operate only on natural gas during the ozone season . . . starting on January 1, 2023, . . . and cease coal operations after December 31, 2028." *Id.* at 50,471 n.79. Petitioner-Intervenors offer no evidence contradicting the EPA's record determination beyond unsupported conjecture that Brunner Island *could* decide to burn coal.

Moreover, Delaware and Petitioner-Intervenors provide no reason that the EPA could not consider all known conditions affecting Brunner Island's anticipated emissions. "Our review under the 'arbitrary and capricious' standard is narrow and does not permit us to substitute our policy judgment for that of the Agency." *Bluewater Network v. EPA*, 370 F.3d 1, 11 (D.C. Cir. 2004). "Thus, when an agency's decision is primarily predictive, our role is limited; we require only that the agency acknowledge factual uncertainties and identify the considerations it found persuasive." *Rural Cellular Ass'n v. FCC*, 588 F.3d 1095, 1105 (D.C. Cir. 2009). Here, the EPA discussed the economic incentives built into the cap-and-trade program, outlined Brunner Island's business strategy and highlighted natural gas price projections prepared by independent analysts. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,471. And it acknowledged the fallibility of its predictions, conceding that "Brunner Island's operations [could] change such that the facility is operating primarily on coal during future ozone seasons." *Id.* at 50,472. In that case, if "future emission levels increase," Delaware can "submit[] another petition regarding Brunner Island's impacts." *Id.* Accordingly, we find that the EPA reasonably explained its predictive judgment.

#### **IV. Nonconsideration of Maryland's Petition Under 2015 NAAQS**

Finally, Maryland argues that the EPA's refusal to evaluate its petition under the 2015 ozone NAAQS was arbitrary and capricious. We disagree.

To preserve an issue for our review, a party generally must raise the issue before the agency. The Clean Air Act specifically provides that issues must be raised during the period for public comment in order to be reviewable here. *See* 42 U.S.C. § 7607(d)(7)(B). Likewise, general administrative-law principles require timely preservation of issues before the agency. *See United States v. L.A. Tucker Truck Lines, Inc.*, 344 U.S. 33, 37 (1952); *Nuclear Energy Inst., Inc. v. EPA*, 373 F.3d 1251, 1297 (D.C. Cir. 2004).

In this case, Maryland's section 126(b) petition did not ask the EPA to make a finding that upwind sources were significantly contributing to its nonattainment of the 2015 NAAQS. On the contrary, the petition sought a finding only "with respect to the 2008 ozone [NAAQS]." Md. Cover Ltr. at 1 (J.A. 48). Moreover, Maryland repeatedly described its emissions problem, its requested finding, and its proposed remedy by reference to the 2008 NAAQS. *See* Md. Pt. at 1, 3, 4, 17 (J.A. 50, 52, 53, 66). Because Maryland did not ask for a finding under the 2015 standards, the EPA permissibly declined to make one. *See Appalachian Power Co. v. EPA*, 251 F.3d 1026, 1036 (D.C. Cir. 2001) ("An agency cannot be faulted for failing to address such issues that were not raised by petitioners.").

Maryland contends that its petition did request a finding under the 2015 NAAQS, if not in so many words. Specifically, Maryland noted that a timely remedy might allow some in-state areas also to reach attainment under the 2015 standards. *See*

Md. Pet. at 9, 13, 14 (J.A. 58, 62, 63). But that does not amount to requesting a finding under those standards. Instead, it suggests only that a finding under the 2008 standards might have produced further in-state benefits under other standards.

Alternatively, Maryland responds that its petition did not need to request a finding under the 2015 NAAQS. Maryland reasons that, when it filed the petition in November 2016, the EPA had not yet issued attainment designations for it under the 2015 NAAQS. But whether it would have been premature for Maryland to request a finding under the 2015 standards at that time is beside the point. In its November 2016 petition—the only one at issue here—Maryland did not request a finding under the 2015 standards. Now that the EPA has designated areas in Maryland as failing to attain those standards, the State remains free to file a separate petition requesting a finding under them.

Finally, Maryland notes that it asked for a finding under the 2015 standards in its comments to the EPA's proposed denial of its petition. But that request came too late. Consistent with Maryland's petition, the EPA's proposed action did not address the 2015 standards and failed to give public notice that it might do so. *See* Response to Delaware and Maryland, 83 Fed. Reg. at 50,463. With the proceeding so far along, Maryland could not properly request an entirely new finding. We recognize that Maryland was required to preserve arguments in its response to the proposed denial, 42 U.S.C. § 7607(d)(7)(B), but that hardly entitled it to raise points wholly outside the scope of the notice generated by its own prior petition. Because Maryland's request for a finding under the 2015 NAAQS fell outside the scope of the pending rulemaking—as triggered by Maryland's own petition—the EPA had no obligation to address it. *See Am. Fuel & Petrochemical Mfrs.*, 937 F.3d at 585–86.

**V. Conclusion**

For the foregoing reasons, we grant Maryland's petition for review in part and remand the non-catalytic controls issue to the EPA. We otherwise deny the petitions for review.