

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD FEB 21 2006

STATE OF ILLINOIS
Pollution Control Board

IN THE MATTER OF:)	
)	
NOx TRADING PROGRAM:)	R06-22
AMENDMENTS TO 35 ILL.)	(Rulemaking - Air)
ADM. CODE PART 217)	

NOTICE

TO:

Dorothy Gunn, Clerk
Illinois Pollution Control Board
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, Illinois 60601

John Knittle, Hearing Officer
Illinois Pollution Control Board
State of Illinois Center
100 West Randolph, Suite 11-500
Chicago, Illinois 60601

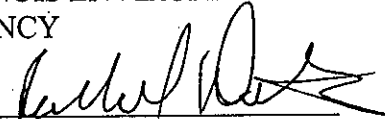
Gale W. Newton
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3150 Roland Ave.
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Illinois Environmental Regulatory Group
3150 Roland Ave.
Springfield, IL 62703

Kathleen C. Bassi
Schiff Hardin, LLP
6600 Sears Tower
233 S. Wacker Drive
Chicago, IL 60606-6473

PLEASE TAKE NOTICE that I have today filed with the Office of the Pollution Control Board a MOTION TO SUPPLEMENT THE RULEMAKING PROPOSAL of the Illinois Environmental Protection Agency a copy of which is herewith served upon you.

ILLINOIS ENVIRONMENTAL PROTECTION
AGENCY

By: 

Rachel L. Doctors
Assistant Counsel
Division of Legal Counsel

DATED:
P.O. Box 19276
Springfield, Illinois 62794-9276

BEFORE THE ILLINOIS POLLUTION CONTROL BOARD

RECEIVED
CLERK'S OFFICE

FEB 21 2006

STATE OF ILLINOIS
Pollution Control Board

IN THE MATTER OF:)	
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THE NO _x TRADING PROGRAM:)	R06-22
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ADM. CODE PART 217)	
)	

MOTION TO SUPPLEMENT RULEMAKING PROPOSAL

NOW COMES Proponent, the ILLINOIS ENVIRONMENTAL PROTECTION AGENCY (Illinois EPA), by its attorney, Rachel L. Doctors, pursuant to 35 Ill. Adm. Code 102.110, 102.402, and 101.500, and moves that the Illinois Pollution Control Board (Board) allow the Illinois EPA to supplement its rulemaking proposal. In support of its Motion, the Illinois EPA states as follows:


1. The Illinois EPA filed the above entitled rulemaking proposal with the Board on January 17, 2006.
2. The Illinois EPA also filed a Motion for Waiver of Requirements asking the Board to waive the filing requirements pertaining to documents the Agency relied upon that were readily accessible.
3. In an Order dated February 2, 2006, the Board states that the two documents referenced in paragraph 3 (h) and (m) are not readily accessible and asks that the Illinois EPA provide 5 copies of the documents. The items referenced in paragraph 3 (h) and (m) are citations to dockets before the United States Court of Appeals in the D. C. Circuit.

4. The Illinois EPA is supplementing the rulemaking proposal by providing the Petition for Review that was filed in *State of North Carolina v. EPA*, No. 05-1244 (D.C. Cir.) on July 8, 2005 as a document in which the Illinois EPA relied upon.

5. The Illinois EPA is providing the Board with the Decision entered in *State of West Virginia v. EPA*, 362 F. 3d 861 (D.C. Cir. 2004) as a document relied upon.

WHEREFORE, for the reasons set forth above, the Illinois EPA moves that the Board accept the above mentioned documents relied upon as part of the rulemaking proposal.

Respectfully submitted,
ILLINOIS ENVIRONMENTAL
PROTECTION AGENCY

By: 
Rachel L. Doctors
Assistant Counsel
Division of Legal Counsel

DATED: February 17, 2006

1021 North Grand Ave. East
P.O. Box 19276
Springfield, IL 62794-9276
217/782-5544

UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT
JUL - 8 2005
RECEIVED

UNITED STATES COURT OF APPEALS
FOR DISTRICT OF COLUMBIA CIRCUIT
FILED JUL - 8 2005
CLERK

UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF NORTH CAROLINA,)

Petitioner,)

v.)

UNITED STATES ENVIRONMENTAL)
PROTECTION AGENCY,)

Respondent.)

No. **05-1244**

PETITION FOR REVIEW

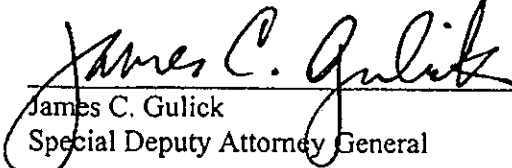
Pursuant to Rule 15 of the Federal Rules of Appellate Procedure and section 307(b) of the Clean Air Act, 42 U.S.C. § 7607(b), the State of North Carolina hereby petitions the Court to review the final rule of the United States Environmental Protection Agency entitled "Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule); Revisions to Acid Rain Program; Revisions to the NOx SIP Call" which was published at 70 Fed. Reg. 25,162 (May 12, 2005) and is to be codified at 40 C.F.R. §§ 51, 72, 73, 74, 77, 78, and 96.

Dated July 7, 2005.

Respectfully submitted,

ROY COOPER
Attorney General

By:


James C. Gulick
Special Deputy Attorney General

J. Allen Jernigan
Senior Deputy Attorney General

Marc Bernstein
Assistant Attorney General

Jill Weese
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N.C. Department of Justice
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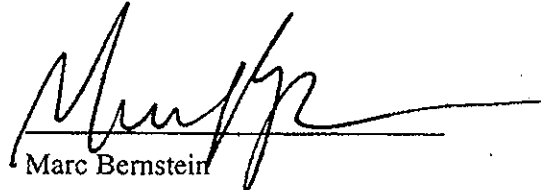
CERTIFICATE OF SERVICE

I hereby certify that on the 8 day of July 2005, a copy of the foregoing Petition for Review was sent by U.S. mail, first class postage prepaid, to the following:

Hon. Alberto R. Gonzales
Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001

Hon. Stephen L. Johnson, Administrator
United States Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Hon. Ann R. Klee
U.S. Environmental Protection Agency
Office of General Counsel
1200 Pennsylvania Avenue, N.W. (2310A)
Washington D.C. 20460


Marc Bernstein

H**Briefs and Other Related Documents**

United States Court of Appeals,
 District of Columbia Circuit.
 State of WEST VIRGINIA, Petitioner,
 v.
 ENVIRONMENTAL PROTECTION AGENCY,
 Respondent.
 State of New York, et al., Intervenors.
 Nos. 02-1181, 02-1185, 02-1188, 02-1193, 02-1200,
 02-1204 and 02-1205.


Argued Sept. 15, 2003.
 Decided April 9, 2004.

Background: Two states and several business and energy policy entities petitioned for review of Environmental Protection Agency (EPA) rules requiring various states to revise state implementation plans (SIPs) as to nitrogen oxide (NOx) emissions and establishing emission limits for major NOx sources. The Court of Appeals, 249 F.3d 1032 and 251 F.3d 1026, remanded EPA's electric generating unit (EGU) growth-factor determinations. EPA issued response to remand, and petitioners sought review.

Holdings: The Court of Appeals, Sentelle, Circuit Judge, held that:


- (1) states had standing to challenge EPA's actions;
 - (2) although EPA should have provided formal notice-and-comment opportunity after adding data to docket in second Notice of Data Availability (NODA) on remand, such error did not require invalidation of EPA action;
 - (3) EPA reasonably explained its decision to use data related to time period that overlapped, but did not equate to, period for which it was projecting EGU growth rates; and
 - (4) petitioners could not raise claims that were not raised in the initial litigation or the original rulemaking.
- Petitions denied.

West Headnotes

[1] Administrative Law and Procedure  **759**
15Ak759 Most Cited Cases

While courts routinely defer to agency modeling of complex phenomena, model assumptions must have a rational relationship to the real world.

[2] Environmental Law  **633**
149Ek633 Most Cited Cases

[2] Environmental Law  **642**
149Ek642 Most Cited Cases

Nitrogen oxide (NOx) State Implementation Plans (SIPs) Call issued by Environmental Protection Agency (EPA), based on national work group's findings regarding interstate ozone transport problem, was not subject to review under Clean Air Act (CAA), but would be reviewed under arbitrary and capricious standard of the Administrative Procedure Act (APA). 5 U.S.C.A. § 706(2)(A); Clean Air Act, § 307(d)(9), as amended, 42 U.S.C.A. § 7607(d)(9).

[3] Environmental Law  **683**
149Ek683 Most Cited Cases

Under arbitrary and capricious standard of review set forth by Clean Air Act (CAA) and Administrative Procedure Act (APA), agency determinations based upon highly complex and technical matters are entitled to great deference, particularly when court reviews the use of computer models, because their scientific nature does not easily lend itself to judicial review. 5 U.S.C.A. § 706(2)(A); Clean Air Act, § 307(d)(9), as amended, 42 U.S.C.A. § 7607(d)(9).

[4] Environmental Law  **678**
149Ek678 Most Cited Cases

Environmental Protection Agency (EPA) has undoubted power to use predictive models as long as it explains the assumptions and methodology used, and court will defer to the agency's decision on how to balance the cost and complexity of a more elaborate model against the oversimplification of a simpler model, though court will vacate if agency's conclusions drawn from this model are unreasonable.

[5] Environmental Law  **654**
149Ek654 Most Cited Cases

States had standing to challenge action of Environmental Protection Agency (EPA) in requiring states to revise their state implementation plans (SIPs) as to nitrogen oxide (NOx) emissions and establishing emission limits for major NOx sources; states were not merely suing as *parens patriae* on behalf of electric generators inside their respective

borders, since EPA's lower emissions "budgets" caused injury to states as states.

[6] States  **190**

360k190 Most Cited Cases

A state does not have standing as *parens patriae* to bring an action against the federal government.

[7] Environmental Law  **292**

149Ek292 Most Cited Cases

Environmental Protection Agency (EPA) should have provided formal notice-and-comment opportunity after adding data to the docket in second Notice of Data Availability (NODA) on remand of its electric generating unit (EGU) growth-factor determinations from Court of Appeals, after publishing its initial NODA and inviting comments, as comment period was required for any action taken under section relating to interstate pollution abatement. Clean Air Act, § § 110(c), 126, 307(d)(1)(B, N), (d)(3), as amended, 42 U.S.C.A. § § 7410(c), 7426, 7607(d)(1)(B, N), (d)(3).

[8] Environmental Law  **690**

149Ek690 Most Cited Cases


Failure of Environmental Protection Agency (EPA) to provide formal notice-and-comment opportunity after adding data to the docket in second Notice of Data Availability (NODA) on remand of its electric generating unit (EGU) growth-factor determinations from Court of Appeals, after publishing its initial NODA and inviting comments, did not require invalidation of EPA's action on judicial review, absent any substantial likelihood that resulting rule would have been significantly changed in absence of procedural error. Clean Air Act, § § 110(c), 126, 307(d)(1)(B, N), (d)(3), as amended, 42 U.S.C.A. § § 7410(c), 7426, 7607(d)(1)(B, N), (d)(3).

[9] Environmental Law  **293**

149Ek293 Most Cited Cases

Environmental Protection Agency (EPA) reasonably explained its decision to use data related to time period that overlapped, but did not equate to, period for


which it was projecting electric generating unit (EGU) growth rates in connection with establishing emission limits for nitrogen oxide (NOx) pursuant to the Clean Air Act (CAA); EPA published historical data showing periods of multi-year heat-input decline in accord with its projections, and EPA explained that increasing complexity of its model would not have been worth the increased cost. Clean Air Act, § 126(b), as amended, 42 U.S.C.A. § 7426(b).

[10] Environmental Law  **666**

149Ek666 Most Cited Cases

Petitioners challenging Environmental Protection Agency (EPA) rules requiring various states to revise state implementation plans (SIPs) as to nitrogen oxide (NOx) emissions, and establishing emission limits for major NOx sources, could not raise on appeal, following appellate court's initial remand of rules, claims that were not raised in initial litigation or original rulemaking, as EPA did not explicitly or implicitly reopen issues underlying such new claims in remand proceedings.

[11] Administrative Law and Procedure

 **392.1**

15Ak392.1 Most Cited Cases

Whether an agency has explicitly or implicitly reopened an issue after an initial determination depends on the entire context of the rulemaking including all relevant proposals and reactions of the agency.

*863 **421 On Petitions for Review of an Order of the Environmental Protection Agency.

Mary E. Welsh, Assistant Attorney General, Illinois Attorney General's Office, argued the cause for petitioners State of Illinois and West Virginia. With her on *864 **422 the briefs were Lisa Madigan, Attorney General, Gary S. Feinerman, Solicitor General, and Thomas H. Zerbe, Senior Counsel, West Virginia Attorney General's Office.

Norman W. Fichthorn argued the cause for petitioners Utility Air Regulatory Group, et al. on Common Issues. With him on the briefs were David M. Flannery, Gale R. Lea, Kathy G. Beckett, Mel S. Schulze, Steven G. McKinney, C. Grady Moore, III, Philip S. Gidiere, III, Daniel S. Reinhardt, Margaret C. Campbell, and Gary R. Sheehan, Jr. Andrea B. Field entered an appearance.

C. Grady Moore, III, argued the cause for petitioners Alabama Power Company, et al. on State-Specific Issues. With him on the briefs were Steven G. McKinney, P. Stephen Gidiere, III, Daniel S. Reinhardt, Margaret Claiborne Campbell, Gary R. Sheehan, Jr., David M. Flannery, Gale R. Lea, and Kathy G. Beckett.

Norman L. Rave, Jr., Attorney, U.S. Department of Justice, argued the cause for respondent. With him on the brief were Howard J. Hoffman and Dwight C. Alpern, Attorneys, Environmental Protection

Agency.

William L. Pardee, Assistant Attorney General, Commonwealth of Massachusetts Attorney General's Office, argued the cause for intervenors States of Massachusetts, et al. With him on the brief were Thomas F. Reilly, Attorney General, Richard Blumenthal, Attorney General, Connecticut Attorney General's Office, Eliot Spitzer, Attorney General, New York State Attorney General's Office, J. Jared Snyder, Assistant Attorney General, G. Steven Rowe, Attorney General, Maine Attorney General's Office, Gerald D. Reid, Assistant Attorney General, J. Joseph Curran, Jr., Attorney General, Maryland Attorney General's Office, Kathy M. Kinsey, Assistant Attorney General, Peter C. Harvey, Attorney General, New Jersey Attorney General's Office, Howard Geduldig, Deputy Attorney General, Patrick C. Lynch, Attorney General, Rhode Island Attorney General's Office, Tricia Jedele, Special Assistant Attorney General, Peter W. Heed, Attorney General, New Hampshire Attorney General's Office, Maureen D. Smith, Senior Assistant Attorney General, Kristen Campfield, William H. Sorrell, Attorney General, Vermont Attorney General's Office, Eric Titrud, Assistant Attorney General, and Kevin Leske, Special Assistant Attorney General. John M. Looney, Jr., Assistant Attorney General, Connecticut Attorney General's Office, entered an appearance.

Before: GINSBURG, Chief Judge, and SENTELLE and ROGERS, Circuit Judges.

Opinion for the Court filed by Circuit Judge SENTELLE.

SENTELLE, Circuit Judge:

This is a petition for review of the Environmental Protection Agency's ("EPA" or "Agency") response to this Court's remands in Appalachian Power Co. v. EPA, 249 F.3d 1032 (D.C.Cir.2001) ("Appalachian I"), and Appalachian Power Co. v. EPA, 251 F.3d 1026 (D.C.Cir.2001) ("Appalachian II"). In those cases, we remanded the EPA's electric generating unit ("EGU") growth-factor determinations, which are used to develop Nitrogen Oxide ("NOx") emission limits for regulated states and EGUs. Petitioners--two states and several business and energy policy entities--raise multiple challenges to the Agency's Order on remand. Several states intervene in support of the EPA.

We hold that the EPA satisfied its obligation on

remand to engage in reasoned decisionmaking and explain its choice of methodology. The remaining claims are *865 **423 not properly before this Court, as they were not raised at the time of the rulemaking or in the initial proceedings, and the EPA did not reopen these issues on remand. For these reasons, we deny the petitions.

I. Background

A. Regulatory Background

The Clean Air Act, 42 U.S.C. § 7401 *et seq.* (1994) ("CAA"), requires the EPA to identify air pollutants that endanger the public health, and to formulate National Ambient Air Quality Standards ("NAAQS") that specify the maximum permissible concentrations of those pollutants in the ambient air. Once the EPA has established NAAQS, each state must adopt a "state implementation plan" ("SIP") "providing for the implementation, maintenance, and enforcement of the NAAQS." Michigan v. EPA, 213 F.3d 663, 669 (D.C.Cir.2000). Pursuant to the statute, the EPA has promulgated NAAQS for ozone, which is linked to multiple adverse health effects. See 40 C.F.R. pt. 50 (2003). Ozone, itself, is not emitted directly into the air; rather, it is formed from chemical reactions between NOx and volatile organic compounds in the presence of sunlight. NOx is, therefore, a "precursor" of ozone. NOx is emitted primarily from fossil fuel combustion sources, including motor vehicles and power plants. Owing to the ability of NOx to move through the atmosphere, emissions of NOx in one area can result in ozone non-attainment in a distant area. Evidence in the record demonstrates that states in the eastern United States have difficulty attaining ozone standards because of ozone, or ozone precursor, emissions in upwind states. 64 Fed.Reg. 28,253 (May 25, 1999). The two rules at issue in this petition deal with NOx exhaust limitations on upwind states and EGUs within their borders.

The first rule was based on the work of the Ozone Transport Assessment Group ("OTAG"). The OTAG was a national work group comprising 37 states, along with representatives of EPA, industry, and environmental groups, formed "to study and devise solutions to the interstate ozone transport problem." Michigan v. EPA, 213 F.3d at 672; see also 62 Fed.Reg. 60,318 at 60,319. Based on OTAG's findings, EPA determined that NOx emissions from 23 jurisdictions were "contribut[ing] significantly" to non-attainment in downwind states in violation of the CAA. 42 U.S.C. § 7410(a)(2)(D)(i)(I). Accordingly, in October 1998, the EPA issued the NOx State Implementation Plans Call, which required 22 states and the District of

Columbia to revise their SIPs to impose controls on NOx emissions. 63 Fed. Reg. 57,356 (Oct. 27, 1998) ("NOx SIP Call"). Under the NOx SIP Call, each upwind state must limit its summertime NOx emissions to a statewide emissions "budget." "The budgets represent the amount of allowable NOx emissions remaining after a covered state prohibits the NOx amount contributing significantly to downwind non-attainment." Michigan v. EPA, 213 F.3d 663, 686 (D.C.Cir.2000). Specifically, the NOx state budgets represent the EPA's projection for NOx emissions in 2007 for each state if highly cost-effective controls were implemented. "Highly cost-effective" is defined as those controls capable of removing NOx at a cost of \$2,000 or less per ton. See Appalachian Power Co. v. EPA, 251 F.3d 1026, 1030 (D.C.Cir.2001).

The EPA adopted the second rule in response to petitions from eight states requesting a finding, pursuant to CAA section 126(b), 42 U.S.C. § 7426(b), that stationary sources in upwind states were contributing to ozone non-attainment in the petitioning states in violation of the *866 **424 CAA. 42 U.S.C. § 7410(a)(2)(D). Each petitioning state further sought direct federal regulation of stationary sources in upwind states. Because the Section 126 petitions raised many of the same issues as the NOx SIP Call, the EPA coordinated its response to the section 126 petitions with the NOx SIP Call rulemaking. Based on the analysis underlying the NOx SIP Call, the EPA determined that sources in all or parts of 12 states contributed to non-attainment in the petitioning states; therefore, the Agency established emission limits for major NOx sources in those states. 65 Fed. Reg. 2674 (Jan. 18, 2000) ("Section 126 Rule"). As with the NOx SIP call, the EPA considered both NOx emissions and the cost of controlling them in determining which sources contributed significantly to downwind ozone non-attainment. The EPA also established a "cap and trade" program for the Section 126 Rule, which allows sources with emissions that exceed their budget to purchase allowances from other facilities.

NOx emissions budgets for both the Section 126 Rule and the NOx SIP Call are calculated for the year 2007, although states and EGUs must begin meeting their budgets on May 31, 2004. See 67 Fed. Reg. 21,522-21,525 (April 30, 2002). Additionally, both rules rely on the same underlying determinations. In setting the NOx budgets, the EPA divided each state's NOx emissions according to five source types or "sectors": EGUs, non-EGU stationary sources (such as industrial boilers), area sources (smaller

stationary sources), highway mobile sources, and nonroad mobile sources. The EPA calculated budget allocations for each sector. See Appalachian II, 251 F.3d at 1030. At issue in this petition is the EPA's method for determining the EGU budgets.

To calculate the EGU budgets, the EPA started with a baseline utilization measured as heat input, in million British thermal units ("mmBtu"), from fossil fuels for each EGU's actual heat input from 1995 or 1996, whichever was higher. To that baseline, the EPA added a heat input growth factor. To determine the growth factor, the EPA used the Integrated Planning Model ("IPM"). Several assumptions went into the IPM, one of the most critical of which was projected electricity demand for the states. The EPA utilized inputs derived from the model for 2001-2010. The EPA then applied the projected heat input growth for the 2001-2010 period to the 1995 or 1996 baseline to determine projected heat inputs for the year 2007. Under the NOx SIP Call, each state can allocate its NOx allowances to individual sources as it deems appropriate. Under the Section 126 Rule, EPA distributed the allowances to specific EGUs based on historical heat input levels.

B. This Court's Remands

[1] We have previously considered petitions for review of both the NOx SIP Call and the Section 126 Rule. In both cases we remanded the rules and instructed the EPA to "fulfill its obligation to engage in reasoned decisionmaking on how to set EGU growth factors and explain why results that appear arbitrary on their face are, in fact, reasonable determinations." Appalachian I, 249 F.3d at 1055; Appalachian II, 251 F.3d at 1035. This decision was based, at least in part, on the fact that in two states "actual utilization in 1998 already exceeded the EPA's projected level for 2007." Appalachian I, 249 F.3d at 1053. Additionally, the EPA's implied prediction of "negative growth in electricity generation over the course of a decade appear[ed] arbitrary," as it was left completely unexplained. *Id.* "While courts routinely defer to agency modeling of complex phenomena, model assumptions must have a 'rational relationship' to the real *867 **425 world." *Id.* (citing Chemical Mfrs. Ass'n v. EPA, 28 F.3d 1259, 1265 (D.C.Cir.1994)). In sum, although we noted that EPA's choice may have been reasonable, its failure to explain why it made that choice was error, particularly in the face of contrary real-world data.

C. EPA's Response on Remand

EPA published its response to this Court's remands

in the Federal Register on May 1, 2002. 67 Fed.Reg. 21,868 ("Remand Response"). There, the EPA explained that it decided to retain the previously determined growth rates and provide a fuller explanation. The EPA first pointed out that the 2001-2010 modeled period utilized a consistent set of assumptions. While many commenters suggested using predicted annual growth rates in energy demand from 1995 or 1996 to 2007, the agency was "not aware of any projected heat input growth rates for that period for each State ... that were developed using a consistent set of assumptions." *Id.* at 21,875. According to the EPA, this Court had already held that the EPA's decision to rely upon the IPM instead of inconsistent projections offered by individual states was not arbitrary and capricious. *Appalachian I*, 249 F.3d at 1052-53. The EPA also noted that the two time periods at issue overlap substantially and run a similar length of time. 67 Fed.Reg. 21,875. Furthermore, the EPA explained that the increased costs in man-hours and dollars associated with adding extra years to the model would require "simplifying other assumptions within the model," thus decreasing its accuracy. *Id.* at 21,876. In addition, by utilizing the years 2001-2010, the IPM results could be used in a variety of EPA programs, including implementation of the recently revised NAAQS for ozone. *Id.* at 21,875.

The EPA also addressed this Court's concerns regarding the difference between EPA's predictions and actual heat input levels at the time of the earlier *Appalachian* cases. Using data for the two years following those decisions, the EPA points out that heat input in the two states cited as inconsistent with EPA's predictions--Michigan and West Virginia--had significantly dropped. *Id.* at 21,882-90. The Remand Response explained that most of the regulated states' actual heat input values are now consistent with EPA's predictions, and none are so far above EPA's predictions as to indicate that its assumptions are incorrect. The Agency also conducted a historical analysis of heat input, which showed that it is quite variable and subject to both up and down swings. Thus, heat input can decline over multi-year periods. *Id.* at 21,884-85.

Following EPA's publication of its Remand Response, two states and several business entities petitioned this Court for review. They claim, *inter alia*, that the EPA's projections remain arbitrary, that EPA's use of the 2001- 2010 modeling years is unsupported, and that EPA's predictions regarding future electricity demand were unreasonable.

II. Analysis

[2][3][4] This Court sets aside EPA final action under the CAA if that action is arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. 42 U.S.C. § 7607(d)(9). The standard of review is the same for the NOx SIP Call, which is not subject to § 7607(d)(9), but is subject to the Administrative Procedure Act. 5 U.S.C. § 706(2)(A). Under this familiar standard, "[a]gency determinations based upon highly complex and technical matters are 'entitled to great deference.'" *Appalachian I*, 249 F.3d at 1051-52 (quoting *868*426*Public Citizen Health Research Group v. Brock*, 823 F.2d 626, 628 (D.C.Cir.1987)). See also *Huls Am., Inc. v. Browner*, 83 F.3d 445, 452 (D.C.Cir.1996) ("[W]e will give an extreme degree of deference to the agency when it 'is evaluating scientific data within its technical expertise.'" (citation omitted)). This is particularly true when we review the use of computer models because "their scientific nature does not easily lend itself to judicial review." *Appalachian Power Co. v. EPA*, 135 F.3d 791, 802 (D.C.Cir.1998). The EPA has "undoubted power to use predictive models" as long as it "explain[s] the assumptions and methodology used." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 535 (D.C.Cir.1983). We will "defer to the agency's decision on how to balance the cost and complexity of a more elaborate model against the oversimplification of a simpler model." *Id.* We will vacate if the agency's conclusions drawn from this model are unreasonable.

A. Standing

[5][6] We first address the standing of petitioner States. The EPA contends that West Virginia and Illinois do not have standing to challenge the Agency's action, arguing that these States are suing as *parens patriae* on behalf of electric generators inside their respective borders. While it is true that "[a] State does not have standing as *parens patriae* to bring an action against the Federal Government," that is not the case before us. *Maryland People's Counsel v. FERC*, 760 F.2d 318, 320 (D.C.Cir.1985) (internal citations omitted). Here, the states are suing as states.

The NOx SIP Call directs each state to revise its SIP in accordance with EPA's NOx emissions budget for the state. The lower the emissions budget, the more difficult and onerous is the states' task of devising an adequate SIP. Thus, lower growth factors leading to lower emissions budgets causes injury to the states as states. EPA's own brief belies its argument, as it states that "[u]nder the NOx SIP Call, states have the

option of participating in [a] cap and trade program or obtaining the reductions through other mechanisms." This injury is sufficient to confer standing. Cf. *City of Olmsted Falls v. FAA*, 292 F.3d 261, 268 (D.C.Cir.2002) (declining to decide whether a city may sue as *parens patriae* because injury to the city itself suffices for standing).

B. EPA's Failure to Provide an Opportunity for Comment

[7] Petitioner States challenge EPA's failure to provide formal notice-and-comment after adding data to the docket on remand. According to petitioner States, the CAA requires EPA to engage in formal notice-and-comment procedures when promulgating or revising a SIP (under 42 U.S.C. § 7410(c)) or taking action under Section 126. 42 U.S.C. § 7607(d)(1)(B), (N). During the remand proceedings, the EPA published a Notice of Data Availability ("NODA") that stated that the growth rates could "be supported with a more robust explanation, based on the existing record." 66 Fed.Reg. 40,609 (Aug. 3, 2001). In addition, the EPA stated it was "considering new data" that "appear [ed] to confirm the reasonableness of the growth calculations." *Id.* EPA invited comment and gave thirty days to respond.

On March 11, 2002, EPA released its second NODA ("NODA II"). 67 Fed.Reg. 10,844. After listing 15 documents, the EPA offered no invitation to comment. *Id.* Despite the lack of an invitation, Illinois responded and asked for clarification of what had been added to the record and also requested the opportunity to have "meaningful review and comment." Illinois *869 **427 also reasserted the concerns it had raised in the first NODA and reattached them for EPA's consideration. *Id.*

The EPA contends that no notice-and-comment was required, because our earlier *Appalachian I & II* cases merely remanded for a fuller explanation. As such, on remand no notice-and-comment was required because EPA was only providing a better explanation, not engaging in rulemaking. The EPA also claims that even if notice-and-comment were required it complied because, although it did not expressly request comment in NODA II, it did receive comments.

Petitioner States have the better argument. The EPA erred in not providing an opportunity to comment when it added new material to the record subsequent to its publication of the first NODA. The CAA specifically requires that EPA shall specify a

comment period for any "action of the Administrator under [Section 126]." 42 U.S.C. § 7607(d)(1)(N), (d)(3).

[8] This Court, however, will invalidate agency action because of procedural error only if the error is "so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such error[] had not been made." *National Petrochemical & Refiners Ass'n v. EPA*, 287 F.3d 1130, 1148 (D.C.Cir.2002) (quoting CAA § 307(d)(8), 42 U.S.C. § 7607(d)(8)). Petitioner States argue that EPA's refusal to conduct full notice-and-comment rulemaking fails under this standard. The only support petitioner States offer for this proposition, however, is their contention that had the states been given meaningful opportunity for comment, Illinois would have been able to offer evidence about its nuclear power and electricity generation capacity that would have countered EPA's assumptions. This example is not convincing.

In its response to NODA II, Illinois stated that it had already "provided detailed support for [Illinois' position that EPA's projected electrical generation was too low] to EPA and we have explained our analyses and supporting facts in detail." Illinois pointed out that during the NODA I comment period, it had commented on the "data and on the broader underlying growth factor issues which Illinois has repeatedly raised to EPA." In Illinois' response to NODA I, it specifically provided its opinion regarding its nuclear power generation and capacity. In sum, the only evidence petitioning States offer to show that the absence of formal procedures following NODA II caused EPA to decide differently was, in fact, before the EPA in responses to NODA I. This is not sufficient under the applicable standard of review. While EPA erred in failing to provide comment following NODA II, petitioners have offered no evidence that there is a "substantial likelihood" that the rule would have been "significantly changed" in the absence of the procedural error.

C. EPA's Growth Factor Methodology

[9] This Court previously found that the EPA failed to explain its method for projecting EGU growth rates. In *Appalachian I* and *Appalachian II*, we remanded the rules at issue and instructed the EPA to "fulfill its obligation to engage in reasoned decisionmaking on how to set EGU growth factors and explain why results that appear arbitrary on their face are, in fact, reasonable determinations."

Appalachian I, 249 F.3d at 1055; Appalachian II, 251 F.3d at 1035. In particular, we were concerned about EPA's decision to apply projected heat input growth rates from 2001-2010 to the 1996-2007 period. Appalachian I, 249 F.3d at 1053-54. Fueling those concerns was our observation that real-world growth rates were not in line *870 **428 with EPA's projections. *Id.* Petitioners contend that on remand the agency has failed to satisfy its obligation to resolve these concerns.

According to petitioners, the overlapping quality of the time periods is irrelevant, because 2001-2010 is not representative of 1996-2007. In particular, petitioners argue that there is an absence of evidence regarding heat-input growth for the 1996-2000 period. If growth rates during that time period were different, it would set all of the EPA's predictions askew, because the IPM uses the difference between two modeled years to determine the growth rate. In other words, according to petitioners, the starting point matters greatly in determining the end result, as the years build on one another. Furthermore, petitioners do not accept the agency's explanation that the high costs in conducting extra IPM runs militate against adding runs for the additional years 1996-2001, and they question the EPA's explanation that by running the IPM for 2001-2010, the EPA will be able to utilize the information for several other programs. In sum, petitioners argue that EPA cannot rely on generalized cost savings as an excuse for limiting the quality of its work.

We think EPA has reasonably explained why it chose to rely on the IPM projections for years 2001-2010 in determining the projected growth rate for 1996-2007. We pause to note that actual heat inputs have changed since our prior decisions. The discrepancies we observed between the actual heat input values and the projections for various states during the original *Appalachian* cases - which discrepancies made EPA's modeled growth rates appear arbitrary - are no longer so severe. Both West Virginia and Michigan, which were cited in our earlier opinions as having actual heat input in 1998 already exceeding the EPA's 2007 projections, have both experienced declining heat input from 1998 to 2001. Appalachian I, 249 F.3d at 1053. By 2001, the last year for which data was available for EPA's Remand Response, Michigan's heat input levels had dropped significantly and were in line with EPA's 2001 projections and 8.7% below 2007 projections. 67 Fed.Reg. 21,895. Furthermore, actual heat-input values have decreased in several of the regulated states from 1998 to 2001. 67 Fed.Reg. 21,883.

Finally, EPA points out that the NOx SIP Call covers 23 jurisdictions, and the existence of some margin of error with respect to some of the predictions is not indicative of an unreasonable approach.

In response to our concern that "[f]uture growth projections that implicitly assume a baseline of negative growth in electricity generation over the course of a decade appear arbitrary, and the EPA can point to nothing in the record to dispel this appearance," Appalachian I, 249 F.3d at 1053, the EPA has published historical data that shows there have been historical periods of multi-year heat-input decline. 67 Fed.Reg. 21,884-21,885.

The EPA also points out the significant overlap between the modeled time period and the regulated time period. Again, the IPM was run for the years 2001-2010, and then applied to the 1995 or 1996 to 2007 time frame. Therefore, for the 2001-2007 period, all of the underlying inputs would be the same as if the model had been conducted on the 1995 or 1996 to 2007 time period. The resulting projected demand for those years would also be the same. Because the growth factor is derived from the difference in heat input growth between modeled years, for this entire period the growth rate is directly correlated.

Finally, the EPA describes its effort to "balance the cost and complexity of a more elaborate model against the oversimplification of a simpler **429 model." *Id.* at 21,876 *871 (quoting Small Refiner Lead Phase-Down Task Force v. EPA, 705 F.2d 506, 535 (D.C.Cir.1983)). As the EPA explains, "[t]he complexity of the model - its simulations, inputs, and variables - means that each additional run year adds many more calculations to the model, a task that requires time and resources." *Id.* Because of the increased cost, "other ways would have had to be [sic] found to reduce the number of equations," including reduction of variables or constraints which would have decreased the accuracy of the model. *Id.* In addition, by starting the IPM in 2001, "the model adequately served the needs of several programs." *Id.* In sum, EPA asserts that any further refinement in the heat input growth rate that may have resulted from adding additional years would not have been worth the increased cost.

In the *Appalachian* cases we were faced with a situation in which "even in the face of evidence suggesting the EPA's projections were erroneous, the EPA never explained why it adopted this particular methodology." Appalachian I, 249 F.3d at 1053. On

remand, EPA adequately explained why it chose to apply IPM results from 2001-2010 to determine 2007 heat input requirements, and the evidence suggesting the projections were erroneous has greatly diminished. As we stated in the earlier cases, we will "give an extreme degree of deference to the agency when it is evaluating scientific data within its technical expertise." *Id.* at 1052 (quoting *Huls Am., Inc. v. Browner*, 83 F.3d 445, 452 (D.C.Cir.1996)). Furthermore, "we must defer to the agency's decision on how to balance the cost and complexity of a more elaborate model against the oversimplification of a simpler model." *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d at 535. We will "reverse only if the model is so oversimplified that the agency's conclusions from it are unreasonable." *Id.* This great degree of deference, coupled with EPA's explanation and the evidence added to the record on remand, requires that the petitions be denied.

D. EPA's Electrical Demand Projections and Disaggregation

Petitioners raise two other distinct challenges. First, they claim that the EPA erred in projecting electricity demand growth. More specifically, petitioners contend that EPA erred in discounting electricity demand projections made by the North American Electric Reliability Council ("NERC"), a not-for-profit corporation made up of electric utility generators, sellers, and users. Petitioners also challenge EPA's reduction of projections made by the Energy Information Administration ("EIA"), a department within the United States Department of Energy. The EPA made these reductions because it thought the forecasts did not take into account future reductions in electricity demand caused by energy conservation programs. Petitioners challenge both the amount of the reduction EPA applied, and the premise that these energy conservation programs were not already accounted for in the projections.

Second, they challenge EPA's method of disaggregating regional data. Because the IPM "necessarily models electricity generation and sales on a regional basis in order to reflect the regional nature of the electricity sector," EPA is required to take regional results and turn them into state-specific budgets. 67 Fed.Reg. 21,888. Petitioners contend that EPA failed to adequately explain its disaggregation methodology, and that failure to do so on remand was arbitrary.

[10] Both petitioners' disaggregation and electricity demand reduction claims *872 **430 are forfeit. The

EPA correctly points out that petitioners never raised these claims to the agency in the administrative proceedings when the modeling period was adopted, or in the earlier challenges in this Court. To the extent that petitioners challenged the validity of EPA's use of the IPM, this Court has already rejected that challenge. Appalachian I, 249 F.3d at 1052-53. Petitioners, having forgone the ability to attack these aspects of the model while the rule was being promulgated and initially challenged in court, cannot now do so. Appalachian II, 251 F.3d at 1036 ("It is black-letter administrative law that 'absent special circumstances, a party must initially present its comment to the agency during the rulemaking in order for the court to consider the issue' ") (quoting Tex Tin Corp. v. EPA, 935 F.2d 1321, 1323 (D.C.Cir.1991)). Because neither of these claims were raised in the initial litigation or the original rulemaking, they cannot be raised now.

[11] Additionally, EPA did not reopen these issues in the remand proceedings. Petitioners argue vehemently that EPA did so because it "respond [ed] on the merits" to virtually all comments. 67 Fed.Reg. 21,901. That statement in the Federal Register, however, was made in response to commenters' request that EPA treat any comments it believed outside the scope of the remand as a petition to reconsider. *Id.* As we have previously held, "the reopening rule of *Ohio v. EPA* is not a license for bootstrap procedures by which petitioners can comment on matters other than those actually at issue, goad an agency into a reply, and then sue on the grounds that the agency had re-opened [sic] the issue." American Iron & Steel Inst. v. EPA, 886 F.2d 390, 398 (D.C.Cir.1989) (internal citations omitted). Petitioners are correct that "[w]hether an agency has in fact reopened an issue, explicitly or implicitly," depends on "the entire context of the rulemaking including all relevant proposals and reactions of the agency." Public Citizen v. NRC, 901 F.2d 147, 150 (D.C.Cir.1990). However, petitioners have not shown that the EPA either explicitly or implicitly reconsidered these issues on remand.

As a threshold matter, EPA expressly stated on remand that it "is not soliciting comment on IPM itself or on state-specific approaches for determining 2007 heat input levels." 66 Fed.Reg. 40,616 (August 3, 2001). Looking for implicit reconsideration of these claims, we find none. A reading of EPA's explanation of its reduction of EIA and NERC forecasts, contained in its Remand Response, shows that it did not reconsider that aspect of the rule; rather, it responded to commenters' concerns by

further explaining its reasoning. See Fed.Reg. 21,867-21,881. This is also true of its disaggregation methodology. The EPA's disaggregation methodology was made public on August 24, 1998. 63 Fed.Reg. 45,032-45,033. Petitioners, however, did not raise any claims about EPA's disaggregation methodology in the previous litigation. Again, a reading of the EPA's Remand Response shows that there was no implicit reconsideration of its disaggregation methodology; instead, it simply reiterated the reasoning it had used from the beginning. 67 Fed.Reg. 21,881.

In sum, these claims fall squarely within the ambit of *American Iron & Steel Institute*. Here, petitioners submitted comments, "goad[ed] [EPA] into a reply, and [now] sue on the grounds that the agency ha[s] re-opened [sic] the issue." *American Iron & Steel Inst.*, 886 F.2d at 398. This, we cannot allow. The record does not reflect that EPA explicitly or implicitly reopened the issue. See *Public Citizen v. NRC*, 901 F.2d at 150.

***873 **431 III. Conclusion**

The EPA erred in not providing an opportunity to comment when it added new material to the docket subsequent to its initial NODA, but because the petitioners have not shown a substantial likelihood that the rule would have been significantly changed in the absence of that procedural error, it will not serve as the basis for invalidating the agency's action. Because EPA has now explained its choice of methodology for projecting EGU growth factors, and because petitioners' claims regarding: (1) EPA's reduction of NERC and EIA forecasts, and (2) EPA's disaggregation methodology have been waived, we deny the petitions for review.

362 F.3d 861, 58 ERC 1333, 360 U.S.App.D.C. 419

Briefs and Other Related Documents ([Back to top](#))

• [02-1181](#) (Docket) (Jun. 07, 2002)

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PROOF OF SERVICE

I, the undersigned, on oath state that I have served the attached MOTION TO SUPPLEMENT THE RULEMAKING PROPOSAL of the Illinois Environmental Protection Agency upon the person to whom it is directed, by placing it in an envelope addressed to:

TO:

Dorothy Gunn, Clerk
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and mailing it by First Class Mail from Springfield, Illinois on February 17, 2006 with sufficient postage affixed.

Cynthia Sims

SUBSCRIBED AND SWORN TO BEFORE ME

this 17th day of February, 2006

Brenda Boehner
Notary Public

