

July 19, 2013

PUBLISH

Elisabeth A. Shumaker  
Clerk of Court

UNITED STATES COURT OF APPEALS

TENTH CIRCUIT

STATE OF OKLAHOMA;  
OKLAHOMA INDUSTRIAL  
ENERGY CONSUMERS, an  
unincorporated association,

Petitioners,

v.

No. 12-9526

UNITED STATES  
ENVIRONMENTAL PROTECTION  
AGENCY,

Respondent.

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SIERRA CLUB,

Intervenor-Respondent,

and

PACIFICORP; AMERICAN  
COALITION FOR CLEAN COAL  
ELECTRICITY; NATIONAL PARKS  
CONSERVATION ASSOCIATION,

Amici Curiae.

OKLAHOMA GAS & ELECTRIC  
COMPANY,

Petitioner,

v.

No. 12-9527

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Amici Curiae.

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**PETITION FOR REVIEW OF FINAL DECISION ISSUED BY THE  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
EPA-R06-OAR-2010-0190**

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S. Moreno, Assistant Attorney General; M. Lea Anderson and Barbara Nann, Of Counsel, United States Environmental Protection Agency, with her on the brief), for Respondent.

Andrea Issod, (Elena Saxonhouse and Sanjay Narayan with her on the brief), San Francisco, California, for the Intervenor, Sierra Club.

Michael G. Jenkins, Assistant General Counsel, PacifiCorp Energy, Salt Lake City, Utah, and E. Blaine Rawson, Ray Quinney & Nebeker, P.C., Salt Lake City, Utah, filed an amicus curiae brief on behalf of PacifiCorp, Amicus Curiae.

Paul M. Seby and Marian C. Larsen of Moye White LLP, Denver, Colorado, filed an amicus curiae brief on behalf of the American Coalition for Clean Coal Electricity, Amicus Curiae.

Stephanie Kodish, Knoxville, Tennessee, filed an amicus curiae brief on behalf of the National Parks Conservation Association, Amicus Curiae.

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Before **BRISCOE**, Chief Judge, **KELLY** and **LUCERO**, Circuit Judges.

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**BRISCOE**, Chief Judge.

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In these consolidated petitions for review, petitioners<sup>1</sup> challenge a final rule promulgated by the United States Environmental Protection Agency under the Clean Air Act. The petitioners argue that the EPA impermissibly rejected Oklahoma's plan to limit the emissions of sulfur dioxide at Oklahoma Gas and Electric Company power plants and replaced it with its own more stringent

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<sup>1</sup> The petitioners include the state of Oklahoma, the Oklahoma Industrial Energy Consumers interest group, and the Oklahoma Gas and Electric Company.

regulations, which petitioners contend usurped the state’s authority and will require sizable expenditures on unnecessary technology. We conclude that the EPA has authority to review the state’s plan and that it lawfully exercised that authority in rejecting it and promulgating its own. Exercising our jurisdiction under 42 U.S.C. § 7607(b)(1), we deny the petitions for review.

## I

### *A. Statutory Background*

The Clean Air Act “uses a cooperative-federalism approach to regulate air quality.” U.S. Magnesium, LLC v. EPA, 690 F.3d 1157, 1159 (10th Cir. 2012). Under the Clean Air Act (CAA), the Environmental Protection Agency (EPA) must create and review national ambient air quality standards for certain pollutants. See 42 U.S.C. §§ 7408, 7409. States then have the responsibility to adopt state implementation plans (SIPs), “which provide[] for implementation, maintenance, and enforcement” of those primary and secondary air quality standards. § 7410(a)(1).

States, however, exercise this authority with federal oversight. The EPA reviews all SIPs to ensure that the plans comply with the statute. The EPA may not approve any plan that “would interfere with any applicable requirement” of this chapter of the United States Code. § 7410(l). The EPA has a duty to create its own federal implementation plan (FIP) if either: 1) it “finds that a State has failed to make a required submission or finds that the plan or plan revision

submitted by the State does not satisfy the minimum criteria established under subsection (k)(1)(A) of this section”; or 2) it “disapproves a State implementation plan submission in whole or in part.” § 7410(c)(1). The duty to promulgate a FIP exists “unless the State corrects the deficiency, and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.” Id.

At issue in this case are the portions of the CAA that seek to protect visibility at certain national parks and wildlife areas. The CAA requires that the EPA promulgate regulations “to assure . . . reasonable progress toward” preventing any future and “remedying . . . any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.” § 7491(a)(1), (a)(4). It also requires that the EPA ensure that each state plan “contain[s] such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal.” § 7491(b)(2).

Relevant in this case are the CAA’s mandates regarding sources that contribute to visibility impairments. SIPs must include:

except as otherwise provided . . . a requirement that each major stationary source which is in existence on August 7, 1977, but which has not been in operation for more than fifteen years as of such date, and which, as determined by the State (or the Administrator in the case of a [FIP]) emits any air pollutant which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area,

shall procure, install, and operate, as expeditiously as practicable (and maintain thereafter) the best available retrofit technology, as determined by the State (or the Administrator in the case of a [FIP]) for controlling emissions from such source for the purpose of eliminating or reducing any such impairment.

§ 7491(b)(2)(A). To simplify, a state—or the EPA, when promulgating a FIP—must: 1) determine which of the eligible major stationary sources in their state contributes to visibility impairment; and then 2) determine the “best available retrofit technology” for controlling the emissions causing that impairment at that source. Id. When determining “best available retrofit technology” (BART):

the State (or the Administrator in determining emission limitations which reflect such technology) shall take into consideration [1] the costs of compliance, [2] the energy and nonair quality environmental impacts of compliance, [3] any existing pollution control technology in use at the source, [4] the remaining useful life of the source, and [5] the degree of improvement in visibility which may reasonably be anticipated to result from the use of such technology.

§ 7491(g)(2).

The CAA requires that the EPA create guidelines for the states “on appropriate techniques and methods for implementing this section.” § 7491(b)(1). For “a fossil-fuel fired generating powerplant having a total generating capacity in excess of 750 megawatts, the emission limitations required under this paragraph shall be determined pursuant” to the regulations promulgated by the EPA. § 7491(b). The EPA has promulgated these BART guidelines at 40 C.F.R. §

51.308(e).

*B. Procedural Background*

In 2005, the EPA issued an updated version of its Regional Haze Rule that required states to submit SIP revisions by December 17, 2007. See Regional Haze Program Requirements, 40 C.F.R. § 51.308(b). On January 15, 2009, the EPA took final action in finding that Oklahoma—along with 31 other states, the District of Columbia, and the U.S. Virgin Islands—failed to submit a SIP that addressed any of the Regional Haze elements by this deadline. See Finding of Failure To Submit State Implementation Plans Required by the 1999 Regional Haze Rule, 74 Fed. Reg. 2392-01 (Jan. 15, 2009). This triggered the EPA’s duty to promulgate a federal implementation plan within two years. See 42 U.S.C. § 7410(c)(1).

Before the EPA promulgated a FIP, however, Oklahoma submitted its SIP. See Oklahoma Regional Haze State Implementation Plan, Joint Appendix (JA) at 55 (Feb. 17, 2010). At issue in this petition are the SIP’s BART determinations with respect to two units at Oklahoma Gas & Electricity’s (OG&E’s) Muskogee Generating Station and two units at its Sooner Generating Station. The Oklahoma SIP set a sulfur dioxide (SO<sub>2</sub>) emissions limits of 0.65 lb/mmBtu (thirty-day average) and 0.55 lb/mmBtu (annual average) for each of these four units. See OG&E Muskogee Generating Station BART Review, JA at 187 (Jan. 15, 2010); OG&E Sooner Generating Station BART Review, JA at 221 (Jan. 15, 2010). The

BART for each of these units included OG&E's continued use of low-sulfur coal. The SIP considered, but rejected, an emissions limit that would require the installation of so-called scrubbers to remove SO<sub>2</sub>. See Muskogee BART Review, JA at 213; Sooner BART Review, JA at 247. "The cost for [dry scrubbers] is too high, the benefit too low and these costs, if borne, further extend the life expectancy of coal as the primary fuel in the Sooner [and Muskogee] facilit[ies] for at least 20 years and beyond," according to OG&E's BART analyses. See id.

On March 22, 2011, the EPA proposed a rule that would partially approve and partially disapprove Oklahoma's SIP. Proposed Rule, 76 Fed. Reg. 16,168-01, 16,169 (Mar. 22, 2011). The SO<sub>2</sub> emission limitations for OG&E's four units were among the parts of the SIP that the EPA proposed disapproving. The EPA said that Oklahoma failed to follow the promulgated regulations in determining BART. Id. at 16,182. Specifically, the EPA said that Oklahoma "did not properly 'take into consideration the costs of compliance' when it relied on cost estimates that greatly overestimated the costs of dry and wet scrubbing to conclude these controls were not cost effective." Id. (quoting 40 C.F.R. § 51.308(e)(1)(ii)(A)).

"Given that scrubbers are typically considered to be highly cost-effective controls for power plants such as those at issue, [the EPA] retained a consultant to independently assess the suitability and costs of installing these controls." Id. The EPA found the scrubbers to be substantially more cost effective than



Oklahoma did. Id. at 16,183. For example, Oklahoma estimated the cost of the scrubbers to be \$7,147 per ton of SO<sub>2</sub> removed at one of the Sooner Generating Station units. Id. The EPA projected scrubbers at that same unit would cost \$1,291 per ton of SO<sub>2</sub> removed. Id.

In addition to proposing the partial disapproval of the SIP, the EPA proposed creating its own federal implementation plan in the same action. Id. at 16,168. The EPA proposed an SO<sub>2</sub> emissions limit of 0.06 lb/mmBtu (thirty-day average). Id. at 16,193-94. Based on this limit, the EPA believed the use of dry scrubbers would be cost effective. Id. at 16,183. After notice and comment, the EPA published the final rule enacting these emissions limits. See Final Rule, 76 Fed. Reg. 81,728-01 (Dec. 28, 2011).

On February 24, 2012, the state of Oklahoma and the Oklahoma Industrial Energy Consumers filed in this court a petition seeking review of the final rule (Case No. 12-9526). OG&E filed its petition for review the same day (Case No. 12-9527). We later issued an order granting a motion to consolidate these petitions.

The petitioners also took steps to stay the application of the rule. The same day they filed petitions for review, the petitioners filed with the EPA a motion for reconsideration and a request for an administrative stay.<sup>2</sup> The petitioners also

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<sup>2</sup> Under the CAA, the filing of a petition for reconsideration does not affect  
(continued...)

filed a motion in this court seeking a stay pending a hearing on the merits. A two-judge panel of this court granted the petitioners' motion to stay the portion of the rule requiring the reduction of SO<sub>2</sub> emissions at these four OG&E units.

Oklahoma v. EPA, Nos. 12-9526 and 12-9527, at 1-2 (10th Cir. June 22, 2012).

Meanwhile, appellate briefing progressed.

The petitioners raise a number of objections to the final rule, arguing that the EPA has usurped the state's authority in an effort to force OG&E to spend more than one-billion dollars to install unnecessary technology in the next five years. First, they argue that the EPA exceeded its statutory authority by disapproving Oklahoma's BART determination. Second, they argue that, even if the EPA had this authority, the EPA acted arbitrarily and capriciously by disapproving Oklahoma's SIP. Third, they argue that the EPA acted arbitrarily and capriciously in promulgating its FIP. Fourth, the petitioners argue that the

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<sup>2</sup>(...continued)

the finality of an EPA action for the purposes of judicial review. See 42 U.S.C. § 7607(b)(1) ("The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action."); see also Natural Res. Def. Council v. Abraham, 355 F.3d 179, 203 n.11 (2d Cir. 2004). While the Third Circuit has held that a pending petition for reconsideration deprived it of jurisdiction under the CAA, see W. Penn Power Co. v. EPA, 860 F.2d 581, 587-88 (3d Cir. 1988), it reached this result before the CAA was amended to prevent petitions for reconsideration from affecting finality. Clean Air Act, Amendments, Pub. L. No. 101-549, § 706, 104 Stat. 2399 (1990).

EPA failed to provide them adequate notice of aspects of the final rule. Finally, the petitioners argue the EPA violated the CAA by promulgating the FIP in the same action in which it partially disapproved of the SIP and after the two-year deadline to promulgate a FIP had expired.

## II

The petitioners argue that the EPA exceeded its statutory authority by rejecting Oklahoma's BART determinations and replacing them with its own. The petitioners say that the EPA's action tramples on the discretion that Congress afforded states to make these decisions. The CAA's cooperative-federalism policy supports this view, the petitioners say. More specifically, the petitioners point to the statute's legislative history and its language—mandating BART “as determined by the State.” In the petitioners' view, this all indicates that the statute unambiguously prescribes a limited role for the EPA as regards BART determinations.

In interpreting the CAA, we must follow the guidance set forth in Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc., 467 U.S. 837 (1984). “If the statute is clear, we apply its plain meaning and the inquiry ends.” Ariz. Pub. Serv. Co. v. EPA, 562 F.3d 1116, 1123 (10th Cir. 2009) (quotation omitted). “If the statute is silent or ambiguous about the question at issue . . . we defer to the authorized agency and apply the agency's construction so long as it is a reasonable interpretation of the statute.” Id. (quotation omitted).

“[A]dministrative implementation of a particular statutory provision qualifies for Chevron deference when it appears that Congress delegated authority to the agency generally to make rules carrying the force of law, and that the agency interpretation claiming deference was promulgated in the exercise of that authority.” United States v. Mead Corp., 533 U.S. 218, 226-27 (2001).

We agree with the EPA that the statute provides the agency with the power to review Oklahoma’s BART determination for these four units. The EPA may not approve any plan revision “if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress . . . or any other applicable requirement of this chapter.” 42 U.S.C. § 7410(*l*). And under § 7410(a)(2)(J) SIPs must “meet the applicable requirements of . . . part C of this subchapter”—which includes the provisions of the CAA related to visibility. See §§ 7491, 7492.

The visibility statute itself requires the EPA to promulgate regulations that “require each applicable implementation plan . . . to contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal.” § 7491(b)(2). That includes a requirement that the state make BART determinations. And while it is undoubtedly true that the statute gives states discretion in balancing the five BART factors, it also mandates that the state adhere to certain requirements when conducting a BART analysis. The state plan must include a BART determination

for any eligible plant that “may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area.” § 7491(b)(2). In addition, § 7491(b) requires that the BART determination for units at power plants like those at issue here—having a total generating capacity of greater than 750 megawatts—“shall be determined pursuant” to the EPA regulations. See 42 U.S.C. § 7491(b) (“In the case of a fossil-fuel fired generating powerplant having a total generating capacity in excess of 750 megawatts, the emission limitations required under this paragraph shall be determined pursuant to guidelines, promulgated by the Administrator under paragraph (1).”); see also EPA Br. at 7.

As required by the statute, the EPA has promulgated regulations providing guidelines for making BART determinations. Like the statute, the regulations require that BART determinations at large power plants follow these guidelines. 40 C.F.R. § 51.308(e)(1)(ii)(B) (“The determination of BART for fossil-fuel fired power plants having a total generating capacity greater than 750 megawatts must be made pursuant to the guidelines appendix Y of this part (Guidelines for BART Determinations Under the Regional Haze Rule).”). The EPA rejected Oklahoma’s SIP because the BART determinations failed to comply with these guidelines. See EPA Br. at 22 (“Specifically, EPA concluded that Oklahoma failed to reasonably consider the ‘cost of compliance’ factor by calculating costs as required by the BART guidelines, which led to an ‘unreasoned and unjustified’ BART determination.”). Given that the statute mandates that the EPA must

ensure SIPs comply with the statute, we fail to see how the EPA would be without the authority to review BART determinations for compliance with the guidelines.

The D.C. Circuit's opinion in American Corn Growers Ass'n v. EPA, 291 F.3d 1 (D.C. Cir. 2002), does not alter this conclusion. At issue in Corn Growers was a provision of the Regional Haze Rule that required states to make BART decisions based in part on the geographical location of a source, as opposed to its actual emissions. Id. at 4-5. The rule required BART-eligible sources be subject to BART "even absent empirical evidence of that source's individual contribution to visibility impairment in a Class I area so long as the source is located within a region that may contribute to visibility impairment." Id. at 5. When making the BART determination, the state needed to "analyze the degree of visibility improvement that would be achieved . . . as a result of the emission reductions achievable from all sources subject to BART located within the region that contributes to visibility impairment." Id. at 6 (quotation and emphasis omitted). The D.C. Circuit held the EPA's approach was "inconsistent" with the CAA. Id. at 7-8.

The D.C. Circuit cited two ways in which the rule was inconsistent with the statute. First, the EPA's approach "distort[ed] the judgment Congress directed the states to make for each BART-eligible source" by treating one of the five BART factors differently than the others. Id. at 6. The rule, for instance, prevented a state from "consider[ing] the degree to which new equipment at a

particular source would help cure the haze in some distant national park.” Id. at 7. “Under EPA’s take on the statute, it is therefore entirely possible that a source may be forced to spend millions of dollars for new technology that will have no appreciable effect on the haze in any Class I area.” Id.

Second, the D.C. Circuit said that the rule impermissibly “constrain[ed] authority Congress conferred on the states.” Id. at 9. The court said that the statute and the legislative history suggested that the states had broad authority to weigh the statutory factors and make BART determinations. Id. at 8. The D.C. Circuit noted that the Conference Report on the 1977 amendments to the CAA specifically referenced “an agreement to reject the House bill’s provisions giving EPA the power to determine whether a source contributes to visibility impairment and, if so, what BART controls should be applied to that source.” Id. The agreement instead added the language delegating this authority to the state. Id. “The Conference Report thus confirms that Congress intended the states to decide which sources impair visibility and what BART controls should apply to those sources.” Id. The Haze Rule, though, “ties the states’ hands and forces them to require BART controls at sources without any empirical evidence of the particular source’s contribution to visibility impairment in a Class I area.” Id.

Here, though, the statute and the legislative history support our conclusion that the EPA may reject BART determinations that do not comply with the guidelines. True, the modification of the original House bill reflects an intent to

shift the power to determine BART from the EPA to the states. But, as above, it still placed statutory limits on those state decisions. While the legislative history may evidence an intent to prevent the EPA from *directly* making those BART decisions, it does not necessarily evidence an intent to deprive the EPA of any authority to ensure that these BART decisions comply with the statute. In the present case, the EPA did not reject the petitioners' BART determination because it disagreed with the way it balanced the five factors. It rejected the BART determination because it failed to follow the guidelines—as required by the statute—in calculating one of those factors.

All the conference agreement referenced by the D.C. Circuit did was shift the initial responsibility for making BART determinations from the EPA to the state. But that does not differ from other parts of the CAA—states have the ability to create SIPs, but they are subject to EPA review. In addition, the Conference Report emphasized that the BART determinations for large power plants must comply with EPA guidelines:

The agreement clarifies that the State, rather than the Administrator, identifies the source that impairs visibility in the Federal class I areas identified and thereby fall within the requirements of this section.

.....

In establishing emission limitations for any source which impairs visibility, the State shall determine what constitutes 'best available retrofit technology' (as defined in this section) in establishing emission limitations on a source-by-source basis to be included in the State implementation plan so as to carry out the requirements of this section. *The*



*regulations and Federal guidelines required by the House passed bill for determining this technology are eliminated for all sources other than fossil fuel electric generating plants with a total generating capacity in excess of 750 megawatts.*

H.R. Rep. No. 95-564, at 155 (1977) (Conf. Rep.) (emphasis added).

The Senate discussion about the Conference Report also highlighted the role that the guidelines play in BART determinations for large power plants:

[Senator] McClure. And while those existing sources are limited to the 28 major sources contained in the Senate bill's definition of major emitting facilities, exempting any such source which has the maximum potential to emit less than 250 tons per year, Federal guidelines apply only to fossil-fuel fired generating plants in excess of 750 megawatts?

[Senator] Muskie. That is correct.

[Senator] McClure. Under the conference agreement, does the State retain sole authority for identification of sources for the purpose of visibility issues under this section?

[Senator] Muskie. Yes; the State, not the Administrator, identifies a source that may impair visibility and thereby falls within the requirement of section 128.

[Senator] McClure. And does this also hold true for determination of "Best Available Retrofit Technology"?

[Senator] Muskie. Yes; here again it is the State which determines what constitutes "Best Available Retrofit Technology," as defined in section 128. *The Federal guidelines apply only to the large powerplants we have described.*

123 Cong. Rec. S26,854 (daily ed. Aug. 4, 1977) (emphasis added). The last sentence—omitted by petitioners in their brief—makes clear that the statute

requires that the BART determination here comply with the guidelines. See Pet. Opening Br. at 15. And because the EPA monitors SIPs for compliance with the statute, it must monitor BART determinations for compliance with the guidelines. To be sure, the guidelines themselves might somehow conflict with the statute. But the petitioners have not argued that any conflict exists here.<sup>3</sup> We therefore hold that the EPA had the authority to review Oklahoma's BART determination

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<sup>3</sup> In its amicus brief, the American Coalition for Clean Coal Electricity asserts that some conflict between the guidelines and statute may exist because:

EPA can provide the States with guidelines *only* “on appropriate techniques and methods,” including “(A) methods for identifying, characterizing, determining, quantifying, and measuring visibility impairment in Federal areas referred to in paragraph (1), (B) modeling techniques (or other methods) for determining the extent to which manmade air pollution may reasonably be anticipated to cause or contribute to such impairment, and methods for preventing and remedying such manmade air pollution and resulting visibility impairment.” See cross-reference from [42 U.S.C. § 7491(b)] (last paragraph) to [§ 7941(b)(1) to § 7491(a)(3)]. Thus, EPA's role is to provide procedural and technical guidance to the States in making BART determinations.

See Am. Coalition for Clean Coal's Br. at 12 (emphasis added). However, the statute does not limit the guidelines so restrictively. First, the guidelines must be made as part of regulations that ensure “reasonable progress toward meeting the national goals” specified in the statute. § 7491(a)(4), (b)(1). Second, those guidelines must merely “tak[e] into account” recommendations from a report to Congress on the methods and techniques referenced in the statute, 42 U.S.C. § 7491(b)(1), which includes “methods for preventing and remedying such manmade air pollution and resulting visibility impairment.” 42 U.S.C. § 7491(a)(3)(C). Moreover, the amicus brief fails to explain why the EPA could provide these regulations providing procedural and technical guidance, but yet lacks the authority to ensure states complied with them.

with respect to these two power plants.

### III

Having held that the EPA possesses the authority to review these BART decisions, we must now determine whether the EPA lawfully exercised that authority when it rejected Oklahoma's SIP. Petitioners argue that the EPA took arbitrary and capricious action in rejecting two sets of cost estimates they used in determining BART. The EPA, on the other hand, argues that it properly rejected these estimates—and, thus, the SIP that relied on them—for failure to comply with its guidelines.

We follow the standards of the Administrative Procedure Act (APA) in reviewing the EPA's actions under the CAA. See Magnesium, 690 F.3d at 1164. Under the APA, we must hold unlawful any agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2). “Under the arbitrary or capricious standard, we must determine whether the agency considered the relevant data and rationally explained its decision.” Ariz. Pub. Serv. Co., 562 F.3d at 1122. “Agency action is arbitrary or capricious if the agency has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.” Id. at 1123. (quotation omitted). “Even when

an agency explains its decision with less than ideal clarity, a reviewing court will not upset the decision on that account if the agency's path may reasonably be discerned." Alaska Dep't of Env'tl. Conservation, 540 U.S. at 497 (quotation omitted). In addition, we note that "[w]hen an agency interprets its own regulation, the Court, as a general rule, defers to it unless that interpretation is plainly erroneous or inconsistent with the regulation." Decker v. Nw. Env'tl. Def. Ctr., 133 S. Ct. 1326, 1337 (2013) (quotation omitted).

*A. 2008 Cost Estimates*

The petitioners argue that the EPA arbitrarily rejected a set of cost estimates that OG&E submitted to the EPA in 2008 (2008 Cost Estimates). The petitioners claim that the "EPA acknowledged that 'OG&E did utilize the "EPA Air Pollution Control Cost Manual" when constructing its [May 2008] cost estimates.'" Pet. Opening Br. at 20 (quoting EPA Region 6 Comments on ODEQ's BART Engineering Analyses, JA at 1132 (Nov. 4, 2008)). The 2008 Cost Estimates were "more than ten times EPA's stated average costs per ton for this technology, and nearly five times as much as the upper limit of EPA's expected cost range." Id. at 21. The EPA should have addressed these numbers, petitioners say, because they prove the scrubbers were not cost effective.

This argument is without merit. The EPA never stated that the 2008 Cost

Estimates complied with the Control Cost Manual.<sup>4</sup> In context, the EPA simply acknowledged that OG&E purported to have used the manual in constructing these estimates. Indeed, it requested that OG&E note any deviations from the cost manual—as required by the guidelines<sup>5</sup>—after pointing out that OG&E’s estimates “seem[ed] high compared to what EPA has seen in other BART analysis.” EPA Region 6 Comments, JA at 1132; see also 40 C.F.R. pt. 51 app.

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<sup>4</sup> The entire EPA comment included the following:

*Regarding its cost estimates, OG&E’s estimates seem high compared to what EPA has seen in other BART analyses. OG&E cites increased equipment costs, in part due to the “sellers market” that resulted from the CAIR program. Since the CAIR has been vacated, OG&E should solicit revised bids from pollution control equipment vendors. Region 6 is aware of similarly sized and configured facilities that estimate much lower costs for the installation of wet or dry FGD systems. Region 6 notes that OG&E did utilize the “EPA Air Pollution Control Cost Manual” when constructing its cost estimates. However, OG&E should also note any areas in which where it has deviated from that guidance.*

EPA Region 6 Comments, JA at 1132 (emphases added).

<sup>5</sup> The guidelines state that “cost estimates should be based on the OAQPS Control Cost Manual, where possible.” 40 C.F.R. pt. 51 app. Y(IV)(D)(4)(a). However, it also instructs that parties “should include documentation for any additional information regarding purchased equipment costs, equipment life, replacement of major components, and any other element of the calculation that differs from the Control Cost Manual.” 40 C.F.R. pt. 51 app. Y(IV)(D)(4)(a) n.15.

Y(IV)(D)(4)(a) n.15.<sup>6</sup>

And in any event, the EPA did not “ignore[.]” the 2008 Cost Estimates. Rather, the EPA explained that “[t]hese 2008 costs are not valid under the overnight costing method” required by the manual. Response to Technical Comments, JA at 1236. The 2008 Cost Estimates “contain[ed] . . . fundamental methodological flaws, such as including escalation and Allowance for Funds Used During Construction (AFUDC).” *Id.* “The cost of scrubbers would not be substantially higher than those reported for other similar projects if OG&E had used the costing method and basis, i.e., overnight costs in current dollars, prescribed by the Control Cost Manual,” the EPA said. *Id.* The EPA therefore had a reasonable basis for rejecting the 2008 Cost Estimates as not complying

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<sup>6</sup> Petitioners argue in their reply brief that the EPA did not explicitly raise this response in its comments and therefore cannot use this reasoning to justify its decision on appellate review. Pet. Reply Br. at 10 n.1 (quoting Motor Vehicles Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 50 (1983) (“[A]n agency’s action must be upheld, if at all, on the basis articulated by the agency itself.”)). But an agency “need not address every comment, [although] it must respond in a reasoned manner to those that raise significant problems.” Covad Commc’ns Co. v. FCC, 450 F.3d 528, 550 (D.C. Cir. 2006) (quotation omitted). “The failure to respond to comments is significant only insofar as it demonstrates that the agency’s decision was not based on a consideration of the relevant factors.” *Id.* (citations and quotation omitted). “In making the ‘keystone’ inquiry whether the [agency] engaged in reasoned decisionmaking, the reviewing court is to consider the larger administrative record.” Mt. Diablo Hosp. v. Shalala, 3 F.3d 1226, 1234 (9th Cir. 1993) (quotation omitted).

Here, the letter itself—which is part of the record—quite clearly explains the EPA’s concerns about the 2008 Cost Estimates. And the petitioners did, in fact, submit new cost estimates.

with the guidelines.

*B. The 2009 Cost Estimates*

The petitioners also argue that the EPA acted arbitrarily in rejecting the cost estimates submitted in 2009 (2009 Cost Estimates). These cost estimates included more site-specific data than the ones OG&E initially submitted. The petitioners say that the EPA should defer to Oklahoma's determination that the "site-specific cost information submitted by OG&E in 2009 was credible, detailed, and specific for the individual facilities, going well beyond the default methodology recommended by the EPA guidance." Pet. Opening Br. at 23 (quotation omitted). This argument appears to be premised, in part, on our accepting the representation that the EPA conceded the 2008 Cost Estimates complied with the guidelines. The petitioners argue in their reply brief that for "EPA to acknowledge receipt of cost estimates that it agreed were in compliance with the CCM, ask for site-specific cost estimates that go beyond the CCM, and then reject those site-specific estimates for not conforming to the CCM exemplifies arbitrary and capricious results-oriented decisionmaking." Pet. Reply Br. at 11.

We disagree with the petitioners' characterization of the EPA's actions. The EPA did not reject the mere use of *any* site-specific costs as not complying with the guidelines. It rejected this particular use of site-specific numbers because it "recognized that how OG&E specified those vendor quotes and [its]

subsequent use of them in its cost analysis was flawed.” Response to Technical Comments, JA at 1308. The guidelines require that states provide support for any site-specific costs that depart from the generic numbers in the Control Cost Manual. See 40 C.F.R. pt. 51 app. Y(IV)(D)(4)(a) n.15 (“You should include documentation for any additional information you used for the cost calculations, including any information supplied by vendors that affects your assumptions regarding purchased equipment costs, equipment life, replacement of major components, and any other element of the calculation that differs from the *Control Cost Manual*.”). OG&E never delivered to the EPA these detailed vendor estimates, preventing the EPA from conducting an adequate review to ensure these departures from the manual—and Oklahoma’s approval of them—were justified. See 76 Fed. Reg. at 81,745 (“[M]uch of the documentation OG&E and others cite to support deviations from the Control Cost Manual was not provided to us. Thus, we were unable to analyze their contents and determine whether these deviations were appropriate.”); see, e.g., Response to Technical Comments, JA at 1239 (“For instance, although OG&E provided two spreadsheets that listed their cost line items, these spreadsheets, each over 600 lines in length (and including line items such as seeding and fertilizing the grass at the plant sites), were stripped of all cell calculations, preventing any meaningful review.”). And, as we discuss below in evaluating the EPA’s action in promulgating its FIP, many



of OG&E's costing assumptions were unjustified.<sup>7</sup>

Moreover, the EPA's consultant noted that, even if the departures from the generic numbers had been properly documented, the resulting costs were not analyzed in compliance with the manual. See Revised BART Cost-Effectiveness Analysis, JA at 1517 (October 2010) (“[I]t is possible to follow the generic costing method in the Cost Manual, relying on vendor quotes and other information to estimate scrubber capital and O&M costs. [OG&E's consultants] used vendor estimates for equipment costs but did not follow the generic costing method.”). The guidelines say that states should follow the manual's methodology so that projects can be more easily compared. The EPA said that OG&E should have used the “overnight” costing methodology. Instead, “OG&E and others incorrectly assume that BART cost effectiveness should be based on the ‘all-in’ cost method, which includes all of the costs of a financial transaction, including interest, commissions, and any other fees from a financial transaction up to the date that the project goes into operation, as of the assumed commercial operating dates of the scrubbers, 2014 and 2015.” 76 Fed. Reg. at 81,744.

For their part, the petitioners argue generally that the Control Cost Manual

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<sup>7</sup> We recognize that the EPA has less discretion when it takes actions to reject a SIP than it does when it promulgates a FIP. However, we believe that the EPA had reason to make the adjustments described in Section IV, Part B, even under the higher standard we would apply when evaluating its actions in rejecting a SIP. OG&E has yet to provide any justification for providing estimates that departed from the guidelines.

does not require the use of the “overnight” method used by the EPA. However, they do not point to any specific parts of the guidelines or the Control Cost Manual that contradict the EPA’s approach. Instead, the petitioners argue that the EPA itself conceded that its methodology excluded *only* inflation. Pet. Opening Br. at 31. (“EPA claimed that the CCM required compliance with a ‘constant dollar’ approach . . . . The constant dollar approach allows comparability in the BART context by removing the effects of inflation from cost estimates.”). Petitioners believe this means that it properly included the other costs, such as the Allowance for Funds Used During Construction, in its analyses.

Unlike the petitioners, we do not read the EPA’s statement as proof that the EPA believed the constant-dollar method requires removing *only* inflation. The EPA’s consultant referenced the manual’s adherence to the “constant-dollar” method as the reason for excluding inflation in the estimates. See Revised BART Cost-Effectiveness Analysis, JA at 1517 (“The cost metric estimated in the Manual is real or constant-dollar costs in that the effect of inflation has been removed.”). But the consultant never said that the Control Cost Manual excluded only inflation. In fact, the consultant explained throughout her report that the Control Cost Manual also required excluding many of the other costs on which OG&E had relied. See JA at 1519 (“Cost items such as escalation of costs, bond cost, and AFUDC are not part of the Cost Manual methodology for estimating costs.”); see, e.g., JA at 1520 (“[Allowance for Funds Used During Construction]

are not part of the constant dollar approach found in the EPA Control Cost Manual and should not be included in the BART cost-effectiveness analysis.”). Viewing these comments as a whole, we do not believe the EPA or its consultant ever conceded inflation was the only cost that needed to be eliminated from OG&E’s estimates.

The petitioners also refer to two affidavits from their experts that detail what they believe is the proper costing methodology. Even if we permitted these arguments to be incorporated by reference, we cannot consider these affidavits because they are outside of the administrative record. 42 U.S.C. § 7607(d)(7)(A).

Aware of this hurdle, petitioners criticize the EPA’s *procedure*, arguing that they had no opportunity to object to the EPA’s use of the so-called “overnight” costing method because the EPA used it for the first time in the final rule. To be sure, the EPA used the *term* “overnight” method for the first time in the final rule. However, the EPA excluded the same costs in the final rule that it did throughout the entire process—the “overnight” method was simply the shorthand it used in the Final Rule to describe the exclusion of these costs. In fact, the petitioners’ own comments to the EPA belie the argument they have made to us, since they challenged the exclusion of these costs in the administrative proceeding. See, e.g., Ex. B to OG&E’s Comments: May 2011 BART Cost Analysis Report, JA at 1156 (May 20, 2011) (“EPA’s consultant incorrectly argues that an AFUDC is not part of the constant dollar approach

found in the EPA *Control Cost Manual* and should not be included in the BART cost-effectiveness analyses.” (quotation omitted)). We see no reason to excuse petitioners’ failure to raise these substantive arguments in their brief.

Additionally, we do not have jurisdiction to consider any procedural error that might have occurred as a result of the EPA allegedly using the “overnight” method for the first time in the Final Rule. Under the CAA, “[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment . . . may be raised during judicial review.” 42 U.S.C. § 7607(d)(7)(B). The fact that the petitioners could not have raised their objection about the use of the “overnight” method until after the final rule was published does not excuse them from the requirement they first raise the issue with the EPA. “Rather, the CAA requires a petitioner to first raise its objection to the agency th[r]ough a petition for reconsideration.” Appalachian Power Co. v. EPA, 249 F.3d 1032, 1065 (D.C. Cir. 2001). Petitioners here, though, filed their petition for reconsideration the same day they filed this petition for review. We therefore lack jurisdiction to rule on this procedural objection. See 42 U.S.C. § 7607(d)(7)(B) (“If the Administrator refuses to convene [a reconsideration proceeding], such person may seek review of *such refusal* in the United States court of appeals for the appropriate circuit . . . .”) (emphasis added).

#### IV

Petitioners also challenge decisions made by the EPA in promulgating the

FIP. First, the petitioners argue that the EPA itself failed to follow the guidelines because it did not base its cost-effectiveness analysis on the historical emissions baseline. Second, petitioners argue that the EPA based its analysis on incorrect technological assumptions about the size of the scrubber that needs to be built. Third, the petitioners criticize many of the adjustments the EPA made to its cost estimates. Finally, the petitioners assert that “[s]crubbers at the OG&E units would not have a significant impact on visibility.” *Id.* at 36. We review these challenges under the same arbitrary and capricious standard we used to evaluate the EPA’s rejection of the SIP. However, we do so while recognizing this requires a slightly different perspective: evaluating the EPA’s own choices under the guidelines, as opposed to evaluating its choice to reject the Oklahoma SIP under the guidelines.

*A. Baseline Emissions/Technical Feasibility*

Petitioners argue the EPA acted arbitrarily when it promulgated its FIP because it ignored the units’ past rates of SO<sub>2</sub> emissions in conducting its analysis. Under the guidelines, “[a]verage cost effectiveness means the total annualized costs of control divided by annual emissions reductions (the difference between baseline annual emissions and the estimate of emissions after controls).” 40 C.F.R. pt. 51 app. Y(IV)(D)(4)(c). “The baseline emissions rate should represent a realistic depiction of anticipated annual emissions for the source.” *Id.* at Y(IV)(D)(4)(d). “In general, for the existing sources subject to BART, you

will estimate the anticipated annual emissions based upon actual emissions from a baseline period.” Id. “When you project that future operating parameters (e.g., limited hours of operation or capacity utilization, type of fuel, raw materials or product mix or type) will differ from past practice, and if this projection has a deciding effect in the BART determination, then you must make these parameters or assumptions into enforceable limitations.” Id.

OG&E has been voluntarily using low-sulfur coal at these power plants. It therefore estimated that scrubbers would remove around 14,000 tons of SO<sub>2</sub> per year at each of the power plants. Comments of OG&E on Proposed EPA Rule, JA at 1106. The EPA, however, assumed that OG&E would begin to use high-sulfur coal if it installed the proposed scrubbers. The EPA, therefore, estimated that scrubbers would remove 43,428 tons of SO<sub>2</sub> per year at one of the power plants, and 46,458 tons of SO<sub>2</sub> per year at the other. Id. By assuming OG&E would remove larger amounts of SO<sub>2</sub>, while using cheaper, high-sulfur coal, the resulting conclusion was that the scrubbers appeared more cost effective.

This links with petitioners’ second objection: that the EPA impermissibly based its analysis on the construction of smaller, less expensive—but allegedly technically infeasible—scrubbers. Petitioners claim that EPA wrongly assumed that OG&E had the option of building a smaller scrubber based on the sulfur content of the coal it would burn. Scrubber size does not depend on the sulfur content of coal, the petitioners say. Rather, scrubber size must “reflect the

maximum potential heat input from the facility, and that number is essentially the same whether a facility burns high or low sulfur coal.” Pet. Opening Br. at 28. A smaller scrubber would be impossible to build, or would significantly diminish the units’ electricity production, petitioners say.

The EPA says it made its calculations in response to the flawed assumptions made by the petitioners. In the EPA’s view, the petitioners’ analysis assumed that they would be building a much more powerful—and, more important, costly—scrubber system than was actually needed. The petitioners still assumed, though, that they would use low-sulfur coal in the future, making the scrubbers seem less cost effective than they actually would be, the EPA said.

The EPA’s consultant, Dr. Phyllis Fox, analyzed two options to account for these alleged flaws in OG&E’s analysis. In Option 1, Fox evaluated the cost effectiveness of the high powered scrubbers using an *ahistorical* baseline. Revised BART Cost-Effectiveness Analysis, JA at 1513. That is, the analysis assumed that OG&E—while currently using low-sulfur coal—would begin using cheaper, higher sulfur coal if it actually built these larger scrubbers. *Id.* at 1280. This increased the scrubbers’ cost effectiveness because it anticipated the removal of greater amounts of SO<sub>2</sub>. *Id.* at 1513-14.

In Option 2, the EPA evaluated the cost effectiveness of a lower powered scrubber using the historical baseline emissions. *Id.* at 1514. In order to design this less powerful scrubber, the EPA used a model that OG&E’s consultants had

created for the EPA in a different action.<sup>8</sup> JA at 1283. This option increased the cost effectiveness of the scrubbers—assuming the continued use of low-sulfur coal—because it assumed the scrubbers would be less expensive.

The evaluation of the petitioners’ argument essentially hinges on the technical feasibility of a smaller unit. We agree with the petitioners that the guidelines typically require the use of the historical emissions baseline. And we agree that if the EPA were to, without justification, increase the historical emissions baseline, it would encourage the use of high-sulfur coal simply for the purpose of removing greater amounts of SO<sub>2</sub>.

But what is framed as an argument over the baseline is really an argument over the size of the proposed scrubbers. The cost effectiveness of scrubbers would routinely be understated if proposals included costing for scrubbers much larger than needed. “While it may be prudent to overdesign for many reasons, the cost of overdesign should not be attributed to BART, especially when the emission reductions do not consider the overdesign,” the EPA said. Response to Technical Comments. Id. at 1283. If OG&E wanted larger scrubbers, then the EPA needed some way to isolate the BART-related costs from the non-BART-related costs. The EPA took this into account by adjusting the baseline emissions

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<sup>8</sup> The EPA used this model in the final rule. The EPA’s consultant had used a less precise model for basic engineering in the proposal, which the EPA conceded was an “oversimplification.” Response to Technical Comments, JA at 1283.



under the assumption that, if OG&E built the scrubbers it proposed, it would presumably shift to using cheaper forms of coal.

Left to evaluate the arguments of the parties' experts, we must give deference to the EPA. See San Juan Citizens Alliance v. Stiles, 654 F.3d 1038, 1045 (10th Cir. 2011) ("The deference we give agency action is especially strong where the challenged decisions involve technical or scientific matters within the agency's area of expertise." (quotation omitted)).<sup>9</sup> While the petitioners criticize some of the engineering assumptions made by the EPA, they do not explain why the EPA was not justified in relying on OG&E's own consultant's model, or why the EPA's detailed responses in its technical support document were insufficient in addressing its concerns. For example, the petitioners state that "the smaller scrubber envisioned by EPA [option 2] might work for some days of operation at the OG&E Units, but it would preclude OG&E from producing electricity at higher levels when needed." Pet. Opening Br. at 29 n.18. But the EPA assumed in its analysis that the plants would operate at a 100% capacity factor. Technical Support Document, JA at 1348.

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<sup>9</sup> The petitioners argue that we should not afford the EPA deference because the EPA's consultant did not speak to OG&E directly and did not visit the site. Pet. Br. at 19 n.9. They cite no authority for this proposition. Further, the EPA said in its final rule that it "met with OG&E and its consultant concerning the development of our proposal and had extensive communications clarifying particular technical points," which it conveyed to its consultant to incorporate in her report. 76 Fed. Reg. at 81,728.

To be sure, our dissenting colleague raises a number of valid concerns about the EPA’s actions, and we acknowledge that this is a close case. But, ultimately, we cannot adopt OG&E’s analysis given that the EPA was aware of, and provided explanations contradicting, petitioners’ comments.<sup>10</sup> For instance, the petitioners contend that the EPA relied too heavily on the sulfur content of the fuel in downsizing the scrubbers. “A scrubber must be sized to reflect the maximum potential heat input from the facility, and that number is essentially the same whether a facility burns high or low sulfur coal,” the petitioners say. Pet. Opening Br. at 28. The EPA “agree[d] that the sulfur content of the fuel, taken by itself, will not significantly affect the size (or cost) of the gas path portions of the FGD system.” Response to Technical Comments, JA at 1283. However, the EPA noted that the “design and sizing of a scrubber is generally divided into two major systems: (1) flue gas path and (2) reactant handling system.” *Id.* at 1284. The EPA pointed out that OG&E’s own consultant had said in a previous case that “gross unit size in MW . . . and sulfur content of the fuel are the major variables” needed “in order to predict future retrofit costs.” *Id.* at 1285. Ultimately, the

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<sup>10</sup> The dissent argues that “[t]he EPA deserves no deference [on technical determinations], however, where it does not support a conclusion contradicting Oklahoma’s first, reasonable, detailed technical analysis.” Dissent at 3. However, the dissent does not disagree with our conclusion that the EPA had sufficient reasons for rejecting cost estimates—rife with errors—submitted by OG&E. It is not clear how the dissent reached the conclusion that, despite these errors, other portions of Oklahoma’s analysis were “reasonable.”

EPA concluded that “the use of the lower sulfur coal alone would reduce the capital cost of the scrubber by about \$7 million or 3%.” *Id.* at 1284. Given that we must defer to the EPA’s technical judgments, we cannot say the EPA acted arbitrarily on the basis of the record before us and the petitioners’ arguments in their brief.

*B. 2009 Cost Estimates*

The petitioners also argue that the EPA improperly adjusted the 2009 Cost Estimates in promulgating the FIP. Petitioners make three arguments. First, the petitioners argue that the EPA made unreasonable adjustments to the site-specific numbers put forth by petitioners. Second, the petitioners argue that the EPA improperly relied on the “overnight” cost method instead of the constant-dollar approach. Finally, the petitioners argue the EPA selectively manipulated many of the other input variables in order to force OG&E to install scrubbers.

*1) Double Counting and Discounts*

The petitioners claim that in performing the analysis that formed the basis of the FIP, the EPA consultant arbitrarily discounted some of the costs that the petitioners had used in their analysis. Reviewing the record, we do not believe these adjustments were arbitrary or capricious. The EPA explained the basis for each of the adjustments it made. For example, the EPA discounted vendor quotes to reflect the likely efficiencies from building multiple identical units. Revised BART Cost-Effectiveness Analysis, JA at 1530-31. It applied a 5% discount after

a “search of the literature revealed a range of 4% to 10% savings from optimized equipment.” Response to Technical Comments, JA at 1229.

Further, the EPA provided an extensive response to the petitioners’ comments on this point. The petitioners argued during the notice-and-comment period that the EPA should not have assumed that the quotes did not already contain a multiple-unit discount because the vendors knew they were constructing multiple units. In response, the EPA explained why it believed these quotes did not factor in efficiency discounts. *Id.* at 1228. OG&E had specifically asked for single-unit estimates; the prices OG&E used in its report were “exactly double the per-unit prices in the vendor quotes.” *Id.* at 1229. There was “no evidence that any of these vendor quotes considered multiple unit discounts,” even though “[b]ased on common industry practice, [the EPA] expected to see vendor discounts for multiple units in OG&E’s site specific cost estimates.” *Id.* at 1228. In addition, one of the vendors specifically “noted that the cost of the equipment and the design could be optimized to provide more economical operation.” *Id.* at 1229.

Likewise, the EPA explained many of the other adjustments it made to the costs submitted by OG&E. For instance, OG&E’s proposal estimated contingency costs at 14% of the total project capital cost plus escalation, without providing any details on how this number was calculated. Revised BART Cost-Effectiveness Analysis, JA at 1520. The consultant flagged this number as high,

noting that the Control Cost Manual only permits the consideration of a limited number of contingency costs. “A contingency factor in a cost effectiveness analysis ‘should be reserved (and applied to) only those items that could incur a reasonable but unanticipated increase but are not directly related to the demolition, fabrication, and installation of the system,’” the consultant said. Id. at 1521 (quoting Control Cost Manual, Chapter 2, Cost Estimation: Concepts and Methodology, Sec. 2.5.4, p. 2-30). In the absence of any justification for OG&E’s estimate, the consultant adjusted contingency costs to the standard 3% of purchased equipment costs. Id.

Similarly, the consultant adequately explained the decision to apply a discount to the “owner’s costs” estimated by OG&E. OG&E estimated “owner’s cost” at 5% of total capital expended, much higher than the 2% its consultant had used in other BART analyses. Id. at 1527. The EPA’s consultant acknowledged that owners incur some costs related to construction. Id. But the consultant explained that many of the costs that OG&E included in its estimate of “owner’s costs”—such as site oversight—had already been included under the indirect capital costs of engineering/procurement and construction. Id. In light of this, the consultant removed owner’s costs from the analysis. Id. (“Owner’s costs are not separately included in BART cost effectiveness analyses and have been more than double counted here.”).

We do not believe these types of adjustments were arbitrary or capricious.

Moreover, even after the EPA made these adjustments, at least some of these site-specific costs were higher than the generic numbers the EPA could otherwise have used. See, e.g., id. at 1528 (“This change reduces the engineering and procurement costs by \$12,733,100 at Sooner and by \$12,944,277 at Muskogee. These values are still high compared to estimates based on the Cost Manual method of 10% purchased equipment costs.” (footnotes omitted)). In fact, the EPA consultant concluded that the EPA’s cost estimates were likely higher than actual costs would be. Id. at 1510 (“Actual costs could be even lower as I was unable to correct all of the overestimates that I identified due to lack of support and underlying calculations.”).

*2) Constant-Dollar Basis*

Petitioners also argue that the EPA departed from the Control Cost Manual in removing costs aside from inflation from its estimates. As above, we see no merit to this argument. The petitioners have not made a persuasive case in their briefs that either the EPA’s methodology conflicts with the manual<sup>11</sup> or that the EPA conceded it should only have excluded inflation.

*3) Selective Manipulation*

Finally, the petitioners claim the EPA selectively manipulated its data to

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<sup>11</sup> We are not necessarily endorsing the EPA’s approach to costing methodology. We note only that the petitioners chose on appeal to abandon the arguments that they made in the administrative hearing that the manual did not support the EPA’s methodology.

meet its desired result. The petitioners argue the EPA manipulated the data in three ways. First, petitioners argue that the EPA arbitrarily accepted some site-specific numbers and not others. Second, petitioners again reiterate complaints about the EPA's adjustments to its estimates. Third, petitioners argue that the EPA assumed too long of a useful life for the scrubbers.

a) Site-specific costs

First, the petitioners argue that the EPA chose only to adopt site-specific cost estimates that were higher than the generic estimates used in the manual. We cannot agree. As the EPA explained, it used these site-specific numbers when there was, in fact, accurate documentation—supporting a departure from the manual. Response to Technical Comments, JA at 1273 (“We used the Control Cost Methodology (overnight costs, no inflation, no AFUDC, no income taxes, etc.) and site-specific values when they were valuable and correct.”). Petitioners want us to view it as suspicious that the EPA accepted the site-specific estimates where they were lower than the generic numbers in the guidelines. But one could find it equally suspicious that the petitioners did not provide documentation for its estimates that were much greater than the generic cost numbers in the manual. Given that many of the site-specific numbers provided to the EPA were not properly documented in accordance with the guidelines, we do not find it arbitrary or capricious that the EPA rejected them.

b) Double counting

The petitioners also argue that the EPA relied on flawed assumptions when it reduced some of the cost estimates for double counting or overestimation. Again, though, the consultant and the EPA thoroughly documented why they made these adjustments. We see no basis for reversing the EPA's decision on this ground.

c) Useful life of scrubbers

Finally, the petitioners argue that the EPA assumed too long of a useful life for the scrubbers. The longer the useful life of the scrubbers, the more cost effective they will appear to be. The EPA assumed a useful life of thirty years in its analysis. The petitioners argue that the EPA departed from the Control Cost Manual's standard useful life of twenty years for large pollution control systems.

But the EPA adequately explained why it chose to assume a useful life of thirty years. As the petitioners acknowledge, the Control Cost Manual does not reference any specific useful life for scrubbers. See Pet. Opening Br. at 34. Therefore, the EPA considered, among other factors: 1) the fact that scrubbers installed between 1975 and 1985 are still in use; 2) the standards from cost estimates handbooks and published papers, and 3) the fact that the EPA has assumed a 30-year lifetime for scrubbers since "at least 1981." See JA at 1263.



The petitioners do not explain why this explanation was inadequate.<sup>12</sup>

Instead, the petitioners argue that the EPA's decision was unjustified because the EPA assumed that the petitioners would use high-sulfur coal in analyzing Option 1, but then, in its response to the comments, said that the scrubbers would operate in the mild, low-sulfur environment in assuming a useful life of thirty years. This argument is premised on an inaccurate characterization of the EPA's comments. In context, the EPA said that even scrubbers in high-sulfur environments have useful lives of at least thirty years:

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<sup>12</sup> The petitioners characterize the EPA as departing from the manual's standard useful life of twenty years based solely on an unsupported determination "that significant advances have been made in the material of construction and baghouse design since this publication." Pet. Opening Br. at 34. But the EPA was merely explaining that its thirty-year useful life for dry scrubbers was reasonable even in the context of the other control systems actually mentioned in the manual:

OG&E also asserts that the Control Cost Manual assumes a 20 year useful life for other large air pollution systems, citing 20 years for a fabric filter baghouse and 20 years for SCR. The cite of 20 years for the baghouse actually says: "For fabric filters, the system lifetime varies from 5 to 40 years, with 20 years being typical," citing to a 1980 report. Significant advances have been made in the material of construction and baghouse design since this publication. Further, the 1981 EPA/TVA report cited above, "Technical Review of Dry FGD Systems and Economic Evaluation of Spray Dryer FGD System" assumes a 30 year economic and tax life for an SDA/FF, which includes the fabric filter. Regardless, our 30 year estimate for a scrubber, which includes a baghouse, is well within the reported range.

Response to Technical Comments, JA at 1264 (footnotes omitted).

The subject application, the use of a scrubber to remove SO<sub>2</sub> from low sulfur coal, is a mild environment for a scrubber, compared to *high sulfur applications, which have already demonstrated 30 year lifetimes*. The corrosion potential and bag plugging issues in a low sulfur application are much lower than in a comparable high sulfur application.

Response to Technical Comments, JA at 1264 (emphasis added).

Finally, the petitioners argue that the EPA has assumed a shorter useful life for scrubbers attached to other projects. However, the petitioners did not raise this particular argument regarding the useful life of the scrubbers during the administrative review period. Under the CAA, we may review “[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment.” 42 U.S.C. § 7607(d)(7)(B); see, e.g., Am. Farm Bureau Fed’n v. EPA, 559 F.3d 512, 538 (D.C. Cir. 2009) (per curiam) (“In the comments submitted in response to the EPA’s proposed revocation of the annual standard, the environmental petitioners argued only that the record evidence demonstrated adverse effects from *long-term* coarse PM exposure; they did not raise their current argument that an annual standard is necessary to prevent adverse effects from *short-term* exposure.”). The EPA raised this jurisdictional bar in its brief, EPA Response Br. at 43 n.9; the petitioners offered no response in their reply. Therefore, even if this argument had merit, we decline to consider it in this petition for review.

*C. Scrubbers Would Not Have a Significant Impact on Visibility*

Finally, the petitioners assert that the emissions limits proposed in the FIP would not have a significant impact on visibility in the region. The petitioners argue: 1) that the EPA should have used the dollar-per-deciview method in evaluating the benefits to visibility in installing the scrubbers; and 2) that the EPA impermissibly aggregated the visibility improvements the scrubbers would create across facilities. Neither of these claims has merit.

Oklahoma first suggests EPA should not have rejected the visibility analysis it conducted in the SIP, which used the dollar-per-deciview method. This argument is misguided. The EPA rejected the SIP because of the flawed cost estimates. When promulgating its own implementation plan, it did not need to use the same metric as Oklahoma. The guidelines merely permit the BART-determining authority to use dollar per deciview as an optional method of evaluating cost effectiveness. See 40 C.F.R. pt. 51 app. Y(IV)(E)(1).<sup>13</sup>

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<sup>13</sup> We note, however, that in both its final rule and in its brief the EPA asserts that the guidelines require the use of the dollar-per-ton metric in evaluating cost effectiveness. The guidelines themselves are a bit unclear. In the section on cost effectiveness, the guidelines mention only the dollar-per-ton metric. 40 C.F.R. pt. 51 app. Y(IV)(D)(4)(c). However, the guidelines later state that in evaluating alternatives, “we recommend you develop a chart (or charts) displaying for each of the alternatives” that includes, among other factors, the cost of compliance defined as “compliance—total annualized costs (\$), cost effectiveness (\$/ton), and incremental cost effectiveness (\$/ton), *and/or* any other cost-effectiveness measures (such as \$/deciview).” Id. app. Y(IV)(E)(1) (emphasis added).

(continued...)

And in the final rule, the EPA explained why it did not use the dollar-per-deciview metric used by Oklahoma. “Generally speaking, while the metric can be useful if thoughtfully applied, we view the use of the \$/deciview metric as suggesting a level of precision in the calculation of visibility impacts that is not justified in many cases.” 76 Fed. Reg. at 81,747. The EPA has never mandated the use of this metric, and has not developed “thresholds of acceptable costs per deciview improvement.” Id. While the federal land managers have developed thresholds, these thresholds were apparently developed without input from the EPA and without notice-and-comment review. EPA Br. at 54 n.13. In light of this, we do not find it arbitrary or capricious that the EPA chose not to use the dollar-per-deciview metric in evaluating BART options in creating the FIP. We therefore also conclude that any argument by the petitioners that the dollar-per-deciview measurement proves the scrubbers are not cost effective lacks merit. See Pet. Reply Br. at 16.

The petitioners next argue that the EPA impermissibly aggregated the visibility improvements across facilities to make the scrubbers look more effective. The petitioners say that this is evidenced by the EPA’s reference to the

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<sup>13</sup>(...continued)

We do not rule here on whether the EPA would be justified in rejecting a SIP because it relied on the dollar-per-deciview metric. We hold only that it was reasonable for the EPA to use the dollar-per-ton metric despite Oklahoma’s earlier analysis.

total improvement in visibility (2.89 deciviews) that would result from placing scrubbers on all four of these units. Viewed separately, the improvements from the addition of scrubbers at each unit would not be worth the cost of the scrubbers, the petitioners say.

While we agree that the EPA referenced the aggregated visibility improvement across the Class I areas, we do not agree that it used that number to guide its analysis. Instead, it evaluated the improvements facility-by-facility. The Response to the Technical Comments includes data on the visibility improvement at a number of different areas, broken down by facility. See JA at 1495-98. Further, the EPA said its modeling “indicates that visibility improvements anticipated from the installation of dry scrubbers at *each facility* will result in reducing modeled impacts . . . from *each facility* at all nearby Class I areas to levels below 0.5 dv, with improvements greater than 1.0 dv at some Class I areas.” See 76 Fed. Reg. at 81,739 (emphasis added).

The petitioners also argue that the EPA erred because it considered the visibility improvement facility-by-facility instead of unit-by-unit. Even if this argument had merit, we have no jurisdiction to consider it. The petitioners never raised this objection during the rulemaking process. See 42 U.S.C. § 7607(d)(7)(B) (“Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review.”). In fact, the petitioners actually

commented that the EPA needed to make the visibility determinations on a facility-by-facility basis. See JA at 1108 (“Whether reviewing a SIP or proposing its own FIP, EPA, like individual states, is required to consider the visibility improvement associated with scrubbers on a facility-by-facility basis.”).

Likewise, the petitioners argue that the EPA did not provide sufficient notice of the approach it used in its final rule. The petitioners say the EPA used a new metric—days of visibility improvement—that it had never used before. Even if this argument has merit, we cannot consider it on appeal. Again, we may only address issues that were raised during the rulemaking process. As discussed above, it does not matter that the petitioners could not have raised their objection before the promulgation of the final rule. “Rather, the CAA requires a petitioner to first raise its objection to the agency through a petition for reconsideration.” Appalachian Power Co., 249 F.3d at 1066. We therefore decline to consider the petitioners’ argument here. See 42 U.S.C. § 7607(d)(7)(B) (“If the Administrator refuses to convene [a reconsideration proceeding], such person may seek review of *such refusal* in the United States court of appeals for the appropriate circuit . . . .” (emphasis added)).

## V

In addition to these arguments concerning the EPA’s substantive analysis, the petitioners raise a number of challenges to the procedures the EPA used in promulgating the rule. First, they argue that the EPA may not promulgate a FIP

in the same action in which the agency disapproves a SIP. Second, the petitioners argue that the EPA lost the authority to promulgate a FIP because the agency failed to act within two years after its duty to promulgate a FIP was first triggered.

The CAA creates a high bar for any petitioner challenging an EPA action on procedural grounds. The petitioner must prove: 1) that the failure to observe the procedure was “arbitrary and capricious”; 2) that the objection was “raised with reasonable specificity during the period for public comment”; and 3) that the errors were “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 errors had not been made.” 42 U.S.C. § 7607(d)(9)(D), (d)(7), (d)(8). “The essential message of so rigorous a standard is that Congress was concerned that EPA’s rulemaking not be casually overturned for procedural reasons, and we of course must respect that judgment.” Sierra Club v. Costle, 657 F.2d 298, 391 (D.C. Cir. 1981).

The petitioners first argue that the EPA violated required procedures by promulgating its FIP in the same action in which it disapproved the SIP. The petitioners argue the statute requires the EPA first take action on the SIP because it says, according to petitioners, that the “EPA shall propose a FIP ‘unless the State corrects the deficiency,’ thereby reflecting Congress’s intention for States to have the power to design their own SIP and have an opportunity to correct a SIP

before a FIP is issued.” Pet. Opening Br. at 40 (quoting § 7410(c)). It also makes a policy argument that permitting the EPA to disapprove SIPs in the same action in which it promulgates a FIP will “blur [the] distinction” between the EPA’s role in reviewing SIPs and promulgating FIPs. *Id.* at 41.

We do not agree that the EPA’s actions violated the procedural requirements of the CAA. The petitioners’ parsing of the statute relies on a truncated quotation. Under 42 U.S.C. § 7410(c)(1), the EPA must create a FIP after either the state has failed to make the required SIP submission or the EPA has disapproved part of the state’s SIP. This duty continues to exist “unless the State corrects the deficiency, *and the Administrator approves the plan or plan revision, before the Administrator promulgates such Federal implementation plan.*” § 7410(c)(1) (emphasis added). Once the EPA issued findings that Oklahoma failed to submit the required SIP under the Regional Haze Rule, the EPA had an obligation to promulgate a FIP. The statute itself makes clear that the mere *filing* of a SIP by Oklahoma does not relieve the EPA of its duty. And the petitioners do not point to any language that requires the EPA to delay its promulgation of a FIP until it rules on a proposed SIP. As the EPA points out, such a rule would essentially nullify any time limits the EPA placed on states. States could forestall the promulgation of a FIP by submitting one inadequate SIP after another.

In any case, even if we agreed that the EPA should not have promulgated



the FIP in the same action as it rejected the SIP, it is not clear the petitioners would meet the high bar for overturning an EPA action on procedural grounds. It may be poor policy to try to distinguish between the SIP and FIP in a single action. But the petitioners make no attempt to show the procedural error was “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 errors had not been made.” § 7607(d)(9)(D), (d)(8). Indeed, after the EPA raised this heightened standard of review of procedural actions in its brief, the petitioners were silent as to any issue regarding this procedural deficiency in their reply brief.

The petitioners also assert the EPA violated the statute because § 7410(c)(1) says that the “Administrator shall promulgate a Federal implementation plan at any time within 2 years after” the EPA’s duty to promulgate a FIP is triggered. The petitioners argue the EPA lost authority to promulgate its FIP because more than two years had passed since the EPA made its initial finding that Oklahoma failed to submit a SIP. Although the statute undoubtedly requires that the EPA promulgate a FIP within two years, it does not stand to reason that it loses its ability to do so after this two-year period expires. Rather, the appropriate remedy when the EPA violates the statute is an order *compelling* agency action.

The Supreme Court rejected an argument similar to the petitioners’

argument in Brock v. Pierce County, 476 U.S. 253 (1986). At issue in Brock was a law requiring that the Secretary of Labor “issue a final determination as to the misuse of [Comprehensive Employment and Training Act] funds by a grant recipient within 120 days after receiving a complaint alleging such misuse.” Brock, Id. at 254-55 (quotation omitted). The petitioners in that case argued that the Secretary lost his power to recover those funds if he did not make a final determination within 120 days. Id. at 255.

In the absence of a more clear statutory directive, the Court refused to accept this argument. Rather, when “there are less drastic remedies available for failure to meet a statutory deadline”—such as a motion to compel agency action—“courts should not assume that Congress intended the agency to lose its power to act.” Id. at 260. The Court “would be most reluctant to conclude that every failure of an agency to observe a procedural requirement voids subsequent agency action, especially when important public rights are at stake.” Id.

The petitioners do not explain why the principles of Brock would not also control this case. The provision here is “clearly intended to spur [the EPA] to action, not to limit the scope of [its] authority.” Id. at 265. In the absence of any other indication from Congress, the appropriate remedy is simply a suit to compel agency action, not to eliminate the EPA’s authority to file a FIP. See Mont. Sulphur & Chem. Co. v. EPA, 666 F.3d 1174, 1190-91 (9th Cir. 2012).

**VI**

In conclusion, we hold that the EPA had the authority to review Oklahoma's BART determinations. Moreover, it exercised that authority properly. Accordingly, we DENY the petition for review of the EPA's final rule. The stay pending hearing by the merits panel is hereby lifted.

Nos. 12-9526 and 12-9527, State of Oklahoma, et al. v. United States Environmental Protection Agency

**KELLY**, Circuit Judge, concurring in part and dissenting in part.

Although I agree with much of the court’s analysis, I dissent with respect to whether certain EPA actions were arbitrary and capricious. See Ct. Op. Pt. IV(A) (analyzing the EPA’s calculations of baseline emissions and its determination regarding the technical feasibility of the smaller scrubbers on which it based its cost/benefit analysis). Therefore, I would grant the petition for review.

As an initial matter, the court states that “[w]e review these challenges [to the EPA’s FIP] under the same arbitrary and capricious standard we used to evaluate the EPA’s rejection of the SIP.” Ct. Op. Pt. IV. The court notes, however, that “we do so while recognizing this requires a slightly different perspective: evaluating the EPA’s own choices under the guidelines, as opposed to evaluating its choice to reject the Oklahoma SIP under the guidelines.” Id.; see also id. at Pt. III(B), n.7 (“We recognize that the EPA has less discretion when it takes actions to reject a SIP than it does when it promulgates a FIP.”). That may usually be the case, but here the EPA rejected Oklahoma’s SIP and promulgated its own FIP in the same rulemaking action. Many of the same reasons for rejecting the SIP were used to justify the FIP. Therefore, to the extent it makes a difference, I am not convinced we owe any more deference to the EPA in evaluating these challenges than we would if this action were solely a rejection of

a state SIP.

The EPA rejected Oklahoma's cost estimates for scrubbers and provided two options of its own. These options arbitrarily and capriciously (1) assumed OG&E would burn coal they are not burning and have no plans to burn and (2) used scrubbers that do not fit and are not technically feasible.

For purposes of the cost benefit analysis, the Control Cost Manual (CCM) requires that anticipated annual emissions be calculated based upon past actual emissions. 40 C.F.R. pt. 51, App. Y(IV)(D)(4)(d). The EPA ignored the historical emissions baseline in Option 1. OG&E has been using low-sulfur coal and its continued use would have resulted in scrubbers removing about 14,000 tons of SO<sub>2</sub> per year at each affected power plant. JA 1106. The EPA, however, assumed that OG&E would begin using high-sulfur coal which would result in the removal of between roughly 43,000 to 46,000 tons of SO<sub>2</sub> per year at each affected power plant. Id. at 1106, 1513–14. Petitioners commented that any assumption by the EPA of a change in coal was improper and unsupported. See id. at 1088, 1096–99 (OG&E EPA comments); see also id. at 300–02, 313 (OG&E state comments). Knowing these calculations violated the manual, the EPA developed Option 2.

Option 2 was based on OG&E's continued use of low-sulfur coal—the correct emissions baseline as required by the CCM. However, the EPA changed the size of the scrubbers to smaller, less expensive ones. Id. at 1514–16.

Petitioners argued extensively that these smaller scrubbers were technically infeasible. See, e.g., id. at 1099–1102. In particular, the comments point out the size of a scrubber is not dependent on the type of coal used but on gas flow and the maximum potential heat input. Id. at 1101–02, 1144 (OG&E EPA comments); see also id. at 384–430 (OG&E state comments).

EPA admitted in response that the type of coal alone does not affect scrubber size and its estimate for a smaller scrubber was a result of oversimplification. See id. at 1283–84. Therefore, the only question is whether the EPA provided support for the technical feasibility of the smaller scrubbers it ultimately required. The EPA, however, relies almost exclusively on a cost model by OG&E’s consultant Sargent & Lundy in a different action and its statements that the amount of SO<sub>2</sub> removed can in fact affect scrubber size at least somewhat. See id. at 1283, 1348. This report does not describe why it matters or how it would affect the size of the scrubbers in this case.

The EPA rejected Oklahoma’s evidentiary support with no clear evidence of its own to support its contrary conclusion. Usually the court grants deference to the EPA’s technical determinations. See San Juan Citizens Alliance v. Stiles, 654 F.3d 1038, 1045 (10th Cir. 2011). The EPA deserves no such deference, however, where it does not support a conclusion contradicting Oklahoma’s first, reasonable, detailed technical conclusion. See JA 384–430; Lockheed Martin Corp. v. Admin. Review Bd., U.S. Dep’t of Labor, No. 11-9524, 2013 WL

2398691, at \*3 (10th Cir. June 4, 2013). Therefore I would conclude that the failure of the agency to provide any evidence that a significantly smaller scrubber was sufficient to meet OG&E's needs is arbitrary and capricious.

Finally, it is worth noting that the EPA's regional haze program is distinct in the amount of power given to the states. See, e.g., Train v. Nat. Res. Def. Council, Inc., 421 U.S. 60, 79 (1975); 70 Fed. Reg. 39,104, 39,137 (July 6, 2005) (“[H]ow states make BART determinations or how they determine which sources are subject to BART” are among the issues “where the Act and legislative history indicate that Congress evinced a special concern with insuring that States would be the decision makers.”). There are a number of reasons for this approach, not the least of which is that its goals and standards are purely aesthetic rather than directly related to health and safety. The EPA's rule here requires OG&E to make a \$1.2 billion dollar investment over the next five years that will, even under EPA's estimate, result in no appreciable change in visibility. Moreover, there is no evidence this investment will have any effect whatsoever on air quality. It surely will, however, result in adverse changes to what Oklahoma ratepayers will pay for electricity.

Although the EPA has at least some authority to review BART determinations within a state's SIP, it has no authority to condition approval of a SIP based simply on a preference for a particular control measure. Texas v. EPA, 690 F.3d 670, 684 (5th Cir. 2012); see EME Homer City Generation, L.P. v. EPA,

696 F.3d 7, 29 (D.C. Cir. 2012) (reviewing a different rule and concluding that the CAA “prohibits EPA from using the SIP process to force States to adopt specific control measures”). Oklahoma considered the cost and resulting benefit of such a large investment in scrubbers, and its conclusion was not unreasonable.

Assuming the EPA has authority to review Oklahoma’s SIP in the manner it did, its rejection of the SIP and promulgation of its own FIP was arbitrary and capricious. Accordingly, I respectfully dissent on this issue.