



July 26, 2022

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Comments submitted via email to: EPDComments@dnr.state.ga.us

Re: Conservation Organizations Comments on the Pre-Hearing Draft Georgia Regional Haze State Implementation Plan

Dear Ms. Hays,

The National Parks Conservation Association and Sierra Club (“Conservation Organizations”) submit the following and attached comments regarding the Georgia Environmental Protection Division’s (“EPD”) Pre-Hearing Draft Georgia Regional Haze State Implementation Plan (“Proposed SIP”) dated June 24, 2022.

National Parks Conservation Association (“NPCA”) is a national organization whose mission is to protect and enhance America's National Parks for present and future generations. NPCA performs its work through advocacy and education. NPCA has over 1.64 million members and supporters nationwide, including 29,500 in Georgia, with its main office in Washington, D.C. and 24 regional and field offices. NPCA is active nation-wide in advocating for strong air quality requirements to protect our parks, including submission of petitions and comments relating to visibility issues, regional haze State Implementation Plans, climate change and mercury impacts on parks, and emissions from individual power plants and other sources of pollution affecting National Parks and communities. NPCA’s members live near, work at, and recreate in all the national parks, including those directly affected by emissions from Georgia’s sources.

Sierra Club is a national nonprofit organization with 67 chapters and more than 830,000 members—including over 10,000 in Georgia-- dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting the responsible use of the earth’s ecosystems and resources; to educating and enlisting humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these

objectives. The Sierra Club has long participated in Regional Haze rulemaking and litigation across the country to advocate for public health and our nation's national parks.

As discussed in these comments and in the attached expert report, we have serious concerns regarding EPD's Proposed SIP for the Second Implementation Period. As detailed below, EPD's Proposed SIP will not result in reasonable progress towards improving visibility at the Class I areas its sources impact, including those located in Georgia --Okefenokee, Wolf Island, and Cohutta Wilderness Areas-- as well as Class I areas in neighboring states.

Despite the thousands of tons of controllable pollution from Georgia sources including coal-fired powered plants and pulp and paper mills, among others, and the many opportunities for cost-effective controls, Georgia improperly concludes that almost no new reductions in pollution are warranted. Indeed, while we support EPD's evaluation of three sources via the four-factor Analysis --Georgia Power's Plant Bowen, International Paper (IP) Savannah, and Brunswick Cellulose-- almost no additional controls or measures were required,¹ despite reasonable progress control options. Moreover, EPD must also do four-factor analyses for additional sources and to ensure pollution controls are required to cut emissions from the polluting sources.

According to the NPCA's analysis of polluting sources, 78% of the total visibility impairing in Georgia comes from coal power plants and pulp and paper mills², including the following eighteen sources omitted from a four-factor analysis by EPD:

- Georgia Power Company - Plant Scherer
- International Paper - Rome Linerboard Mill
- Georgia-Pacific Cedar Springs, LLC
- Georgia Power Company - Plant Wansley
- Georgia-Pacific Savannah River Mill
- Rayonier Performance Fibers, LLC
- International Paper - Augusta Mill
- PCA Valdosta Mill
- C-E Minerals Plants 1, 2 and 6
- Graphic Packaging Macon Mill
- Weyerhaeuser NR Port Wentworth
- Interstate Paper, LLC
- Weyerhaeuser NR Company - Flint River Operations
- Transcontinental Gas Pipeline Company, LLC - Compressor Station
- Green Power Solutions of Ga, LLC
- CEMEX Southeast, LLC
- Pinova, Inc.
- Thermal Ceramics

¹ "Georgia's State Implementation Plan for Regional Haze," Pre-Hearing Draft (Jun. 24, 2024), ("Proposed SIP") Proposed SIP Executive Summary at iii, <https://epd.georgia.gov/regional-haze-sip-second-implementation-period-0>.

² NPCA Regional Haze Fact Sheet, Georgia: https://drive.google.com/file/d/1CU-QAkQdwwL6EOnlFdL-cXNLArgo_Uzx/view (Exhibit 1) ("NPCA's Regional Haze Fact Sheet for Georgia").

To satisfy the Clean Air Act (“Act” or “CAA”) and Regional Haze Rule (“RHR”), EPD must correct the flaws identified in these comments and in the attached technical report by Victoria R. Stamper³ before submittal to EPA, including:

- Conducting a four-factor analysis and requiring adequate pollution controls and enforceable SIP emission limits for the sources the National Park Service and NPCA identified and listed above;
- Setting enforceable retirements in the SIP for any source the state is counting on for pollution reduction to help achieve reasonable progress;
- Thoroughly assessing environmental justice impacts (as EPA recommended);
- Regarding Plant Bowen, EPD should consider the SO₂ control measure of switching from high sulfur Illinois Basin coal to Powder River Basin (“PRB”) coal cost effective at \$6,424/ton of SO₂ removed. As mentioned below in these comments and in Victoria R. Stamper’s Report, the annual costs would likely be *even lower* “if Georgia Power had considered the addition of new coal pulverizers which would lower or eliminate the derate of the generating capacity that would occur with the change to” PRB coal.⁴ Additionally, if EPD finds that switching to PRB coal is not justified, “then any SO₂ emissions limit that it imposes for the Plant Bowen units should be lower than its proposed 0.20 lb/MMBtu SO₂ limit.”⁵
- Regarding International Paper’s Savannah facility, Victoria R. Stamper’s expert report shows that the company used inadequate, undocumented, and unjustified cost analysis that likely inflated the costs of controls. Stamper’s revised analysis addressing some of the issues with the company’s four-factor analysis resulted in much lower costs and showed that CDS would be very cost effective at \$3,790/ton.⁶
- Regarding Plants Scherer and Wansley, EPD must consider adopting emission limits for these units to reflect continual operation and optimization of their SO₂ and NO_x controls.⁷
- EPD must also consider adopting a 0.07 lb/MMBtu NO_x emission limit applicable year-round for each Plant Bowen unit (and 0.07-0.08 lb/MMBtu for each Scherer and Wansley unit), because the actual emissions data show that the units are not operating their SCR systems year-round.⁸

In addition, EPD’s Proposed SIP improperly:

³ Victoria R. Stamper’s Report “Review and Comments on Reasonable Progress Four-Factor Analyses Evaluated as Part of the Georgia Regional Haze Plan for the Second Implementation Period.” (Exhibit 2).

⁴ Victoria R. Stamper’s Report at 5.

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

- Fails to *first* evaluate whether additional emission reductions from sources are necessary via the four-factor analysis reasonable progress determinations to ensure reasonable progress toward the Act’s visibility goal;
- Relies on alleged “on-the-books” emission reductions absent any enforceable requirement;
- Defers making four-factor analysis determinations based on purported emission reductions from other programs;
- Relies on flawed modeling data and assumptions that are not secured via enforceable SIP requirements to predict that visibility will continue to improve in 2028;
- Relies on flawed and incomplete consultations with the Federal Land Managers, other states and Regional Planning Organizations (“RPOs”); and
- Fails to meaningfully consider and advance environmental justice.

The Clean Air Act’s requirements for Georgia’s Regional Haze Plan present a significant opportunity not only to improve visibility at Okefenokee, Wolf Island, and Cohutta Wilderness Areas, as well as Class I areas in neighboring states, but to improve air quality in communities across the state. Despite the legal requirements necessary to ensure reasonable progress, EPD’s Proposed SIP contains fundamental flaws and arbitrarily fails to meaningfully evaluate or require cost-effective emission reductions for sources that indisputably contribute to visibility impairment in Class I areas across the region. As such, Georgia’s Proposed SIP is unlawful and cannot be approved. EPD must revise its plan to address the legal requirements of the Act and federal regulations, as discussed below and in the attached expert report.

TABLE OF CONTENTS

I.	Introduction and Background	9
II.	Requirements for Periodic Comprehensive Revisions for Regional Haze SIPs	12
A.	Clean Air Act and Regional Haze Rule	12
B.	EPA’s 2017 Revisions to the Regional Haze Rule	13
C.	EPA’s July 8, 2021 Regional Haze Clarification Memorandum.....	15
D.	Where a Source is Unwilling to Conduct the Required Reasonable Progress Analysis, the Responsibility Must be Met by the State.....	17
E.	Enforceable Emission Reductions to Make Reasonable Progress Must be Included in Georgia’s SIP.....	18
III.	EPD’s Source Selection Methodology is Flawed.....	18
A.	Significant Flaws in VISTAS Regional Haze CAMx Modeling and Methods	19
1.	Summary of VISTAS Flawed Modeling Input and Methodology Used to Identify Sources	19
2.	VISTAS’s High Thresholds and Flawed Methodology Excluded Polluting Sources that Should be Addressed and Considered for Emission Reducing SIP Measures.	20
B.	EPD’s Reliance on VISTAS Flawed Approach Unreasonably Excluded Sources.	20
IV.	EPD Wrongly Exempted EGUs from its Reasonable Progress and Four-Factor Analyses.	21
A.	EPD’s exclusion of Georgia Power Company’s Plant Scherer and Plant Wansley, and Green Power Solutions of Georgia EGUs from a reasonable progress and four-factor analysis based on PSAT Modeling Results is unreasonable.	22
B.	EPD’s exclusion of Plants Scherer and Wansley, and Green Power Solutions EGUs from a reasonable progress analysis is unsupported.....	23
1.	Georgia Power’s Plant Scherer.....	24
2.	Georgia Power’s Plant Wansley	25
3.	Green Power Solutions of Georgia, LLC	26
C.	EPD’s Proposed Reasonable Progress Analysis for Plant Bowen is Inconsistent with the Clean Air Act and Regional Haze Rule Requirements.	26
D.	EPD Must Subject Georgia EGUs to NOx Four-Factor Analyses.	30
V.	EPD’s Proposed Analyses for the Non-EGUs are Inconsistent with the Clean Air Act and Regional Haze Rule Requirements.....	31

A.	Review of the Four-Factor Analyses Conducted for Non-EGU Sources	32
1.	Brunswick Cellulose LLC	32
2.	International Paper Co. - Savannah	33
B.	EPD’s High Source Selection Threshold and Erroneous Methodology Wrongly Eliminated Fifteen Other Sources from its Reasonable Progress and Four-Factor Analyses. ...	36
1.	International Paper Company (Rome Linerboard Mill) - Temple Inland	36
2.	Georgia-Pacific Cedar Springs LLC	36
3.	Georgia-Pacific Consumer Products LP (Savannah River Mill).....	37
4.	Rayonier Performance Fibers, LLC	37
5.	International Paper - Augusta Mill	38
6.	PCA Valdosta Mill	38
7.	C-E Minerals Plants 1, 2 and 6	38
8.	Graphic Packaging Macon Mill.....	38
9.	Weyerhaeuser NR Port Wentworth	39
10.	Interstate Paper LLC.....	39
11.	Weyerhaeuser NR Company - Flint River Operations	39
12.	Transcontinental Gas Pipe Line Company, LLC - Compressor Station	40
13.	CEMEX Southeast, LLC	40
14.	Pinova, Inc.	40
15.	Thermal Ceramics	40
VI.	EPD’s Consultations Were Flawed and Incomplete	41
A.	EPD’s Interstate Consultations Were Flawed and Incomplete.	42
1.	Georgia Failed to Respond to Other States’ Request for Four-Factor Analyses.....	43
2.	Georgia Should Insist that Pennsylvania Optimize or Upgrade Controls at Keystone Generating Station.	43
3.	Georgia Should Insist that Ohio Require the Gavin Power Plant to Optimize or Upgrade Controls.....	44
4.	Georgia’s Other Consultations Are Unlawful.	45
B.	EPD’s Consultation with the Federal Land Managers is Flawed and Incomplete.	45
VII.	EPD’s Long-Term Strategy is Inconsistent with Legal Requirements	50
A.	EPD Must First Conduct the Required Four-Factor Analyses and then Develop the Reasonable Progress Goals.....	50
B.	The Public was Not Provided an Opportunity to Review and Comment on the VISTAS Emission Inventories and Modeling.	51

C.	Must Not Rely on Unquantified and Unenforceable Statements in its SIP.	52
D.	EPD Wrongly Suggests Existing Emission Trading Programs That Do Not Include Georgia’s Sources Will Continue to Reduce Visibility Impairing Pollutants.	56
E.	It is Inconsistent with Clean Air Act’s Requirements to Use Visibility as a Fifth Factor to Decide Reasonable Progress Controls.	56
F.	EPD’s Reliance on the “Glide Path” and Its Methodology to Adjust the RPGs for Class I Areas within Georgia Violates the Clean Air Act and Regional Haze Rule.	57
1.	EPD Erroneously Proposes to Rely on the Glide Path	57
2.	EPD Must Not Revise the RPGs Based on Projected Modeling and Incomplete Interstate Consultations That Are Not Reflected in Enforceable SIP Requirement	58
G.	EPD Should Disclose Emission Inventory Projections and Identify Measures Needed to Prevent Future Impairment of Visibility.	59
H.	EPD Must Establish and Provide a Basis for A Cost Effectiveness Threshold.	60
I.	Retirements Relied on to Justify No Control and No Upgrades Must be Reflected as Enforceable SIP Measures.	60
J.	EPD Ignores and the SIP Lacks Controls for Nitrate Contributions from Point Sources at Class I Areas.	61
K.	EPD’s Assertion that it Lacks Adequate Resources Is Not a Valid Reason to Avoid the Act’s Requirements.	62
L.	EPD’s Materials Proposed for Adoption into the Regulatory Portion of the Georgia SIP Fail to Meet Statutory and Regulatory Requirements.	63
VIII.	EPD Must Analyze Environmental Justice Impacts of its Regional Haze SIP AND Should Ensure the SIP Will Reduce Emissions and Minimize Harms to Disproportionately Impacted Communities.	64
A.	EPD Must Consider Environmental Justice to Comply with Executive Orders.	64
B.	EPA’s Regional Haze Guidance and 2021 Clarification Memo for the Second Implementation Period Directs States to Consider Environmental Justice.	65
C.	EPA has a Repository of Material Available for Considering Environmental Justice. ...	65
D.	EPA Must Consider Environmental Justice.	66
E.	EPD Must Consider Environmental Justice under Title VI of the Civil Rights Act.	66
F.	Properly Addressing Haze Pollution from Georgia’s EGUs Would Result in Significant Environmental Justice Benefits.	67
IX.	Conclusion	67

X.	Exhibits.....	69
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I. INTRODUCTION AND BACKGROUND

Georgia is home to three Class I areas: Okefenokee, Wolf Island and Cohutta Wilderness Areas.⁹ Congress set aside these national parks and wilderness areas to protect our natural heritage for generations. These protected areas provide habitat for a range of wildlife species, provide year-round recreational opportunities for residents and visitors, and generate millions of dollars in tourism revenue. Because of these areas' designations as "Class I" under the Clean Air Act, their air quality is entitled to the highest level of protection.

To improve air quality in our most treasured landscapes, Congress passed the visibility protection provisions of the Act in 1977, establishing "as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in the mandatory class I Federal areas which impairment results from manmade air pollution."¹⁰ "Manmade air pollution" is defined as "air pollution which results directly or indirectly from human activities."¹¹ To protect Class I areas' "intrinsic beauty and historical and archeological treasures," Congress instructed EPA to implement regulations that require states to design and implement programs to curb haze-causing emissions within their jurisdictions.¹² Each state must submit for EPA review a state implementation plan ("SIP") designed to make reasonable progress toward achieving natural visibility conditions.¹³

Under the Clean Air Act, each regional haze SIP must provide "emissions limits, schedules of compliance and other measures as may be necessary to make reasonable progress towards meeting the national goal."¹⁴ Two of the most critical features of a regional haze SIP are the requirements for installation of Best Available Retrofit Technology ("BART") limits on pollutant emissions *and a long-term strategy for making reasonable progress toward the national visibility goal*.¹⁵ Although many states addressed the Act's BART requirements in their initial regional haze plans, EPA's 2017 revisions to the RHR make clear that BART was not a once-and-done requirement. Indeed, states "will need" to reassess "BART-eligible sources that installed only moderately effective controls (or no controls at all)" for any additional technically-achievable controls in the second planning period.¹⁶ The haze requirements in the Act present an unparalleled opportunity to protect and restore regional air quality by curbing visibility-impairing emissions from a variety of polluting sources.

Implementing the regional haze requirements promises benefits beyond improving views. Pollutants that cause visibility impairment also harm public health. For example, oxides of nitrogen ("NOx") are a precursor to ground-level ozone which is associated with respiratory disease and asthma attacks. NOx also reacts with ammonia, moisture, and other compounds to

⁹ Proposed SIP at 248.

¹⁰ 42 U.S.C. § 7491(a)(1).

¹¹ *Id.* § 7491(g)(3).

¹² H.R. Rep. No. 294, 95th Cong. 1st Sess., at 203-04 (1977).

¹³ *Id.* § 7491(b)(2).

¹⁴ 42 U.S.C. § 7491(b)(2).

¹⁵ *Id.* § 7491(b)(2)(B); 40 C.F.R. § 51.308(d)(1)(i)(B).

¹⁶ 82 Fed. Reg. 3078, 3,083 (Jan. 10, 2017); *see also id.* at 3,096 ("states must evaluate and reassess all elements required by 40 CFR 51.308(d)").

form particulates that can cause and/or worsen respiratory diseases, aggravate heart disease, and lead to premature death. Similarly, sulfur dioxide (“SO₂”) increases asthma symptoms, leads to increased hospital visits, and can also form particulates. NO_x and SO₂ emissions also harm terrestrial and aquatic plants and animals through acid rain as well as through deposition of nitrates (which in turn cause ecosystem changes including eutrophication of mountain lakes).

Unfortunately, the Act’s goal of achieving natural visibility in all Class I areas remains unfulfilled because the states, including Georgia, have failed to require cost-effective, industry-standard emission controls at many of the largest and oldest sources of haze-causing pollution, including the sources identified in Table 1, which are covered in our comments.

Table 1. Sources Identified by NPCA and the Federal Land Managers that Warrant Four-Factor Analysis and Emission Limitations in the SIP.^{17, 18}

Source Name	County	Description	Cumulative Q/d	Nearest Class I Area	Distance (km)	Q (tons)	Q/d
Ga Power Company - Plant Bowen	Bartow	Fossil Fuel Electric Power Generation	995.4	Cohutta Wilderness	84.3	14,963	177.4
Ga Power Company - Plant Scherer	Monroe	Fossil Fuel Electric Power Generation	636.8	Cohutta Wilderness	210.2	11,289	53.7
International Paper - Savannah	Chatham	Paperboard Mills	389.2	Wolf Island	83.1	6,651	80
International Paper Company (Rome Linerboard Mill) - TEMPLE INLAND	Floyd	Pulp Mills	185.1	Cohutta Wilderness	92.3	3,405	36.9
Georgia-Pacific Cedar Springs LLC	Early	Paperboard Mills	169.8	Bradwell Bay Wilderness	116.2	3,731	32.1
Brunswick Cellulose Inc	Glynn	Pulp Mills	146.6	Wolf Island	25.1	2,085	83.1

¹⁷ The information in this Table is from the NPCA interactive map that provides users access to point and non-point source emissions data based on NPCA’s assessment of publicly available information curated to identify sources and industrial sectors of concern to visibility in Class I area national parks and wilderness areas. The sources identified likely merit review by states to determine whether and what emission reduction options are feasible to achieve reasonable progress towards the restoration of natural visibility at Class I areas, and otherwise benefit progress toward clean air in all of our communities. The map lets one visualize the locations and details of emission sources, the level of emissions of different pollutants, and the Class I areas potentially affected by each source. The interactive map also provides information on emissions from oil and gas infrastructure such as wells, drilling rigs, compressor stations, pipelines, and refineries at the county level. Additional layers are available to visualize the 8-hour Ozone (2015) nonattainment areas as well as vulnerable populations by county density, including people of color and people living below the poverty line.

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁸ Proposed SIP Appendix H-1.

Source Name	County	Description	Cumulative Q/d	Nearest Class I Area	Distance (km)	Q (tons)	Q/d
Ga Power Company - Plant Wansley	Heard	Fossil Fuel Electric Power Generation	109.3	Cohutta Wilderness	163.5	2,632	16.1
Georgia-Pacific Consumer Products LP (Savannah River Mill)	Effingham	Paper (except Newsprint) Mills	101.3	Wolf Island	106.8	2,425	22.7
Rayonier Performance Fibers, LLC	Wayne	Pulp Mills	73.3	Wolf Island	58.3	1,655	28.4
International Paper - Augusta Mill	Richmond	Paperboard Mills	70.6	Wolf Island	224.0	2,083	9.3
PCA Valdosta Mill	Lowndes	Paperboard Mills	70.2	Okefenokee	73.4	1,666	22.7
C-E Minerals Plants 1,2 and 6	Sumter	Clay Building Material and Refractories Manuf.	48.1	Okefenokee	207.4	1,825	8.8
Graphic Packaging Macon Mill	Bibb	Paperboard Mills	46.3	Okefenokee	225.6	1,579	7
Weyerhaeuser NR Port Wentworth	Chatham	Pulp Mills	34.3	Wolf Island	87.9	1,441	16.4
Interstate Paper LLC	Liberty	Paperboard Mills	31.2	Wolf Island	41.9	943	22.5
Weyerhaeuser NR Company - Flint River Operations	Macon	Pulp Mills	30.0	Okefenokee	209.2	1,464	7
Transcontinental Gas Pipe Line Company, LLC - Compressor Station	Henry	Pipeline Transportation of Natural Gas	28.0	Cohutta Wilderness	144.7	1,331	9.2
Green Power Solutions of Georgia, LLC	Laurens	Biomass Electric Power Generation	27.1	Okefenokee	168.0	1,495	8.9
CEMEX Southeast, LLC	Houston	Cement Manufacturing	23.6	Okefenokee	195.6	1,389	7.1
Pinova, Inc.	Glynn	All Other Basic Organic Chemical Manufacturing	23.4	Wolf Island	22.8	396	17.4
Thermal Ceramics	Richmond	Clay Building Material and Refractories Manuf.	21.8	Shining Rock Wilderness	224.2	1,278	5.7

II. REQUIREMENTS FOR PERIODIC COMPREHENSIVE REVISIONS FOR REGIONAL HAZE SIPs

A. Clean Air Act and Regional Haze Rule

The Act establishes “as a national goal the prevention of any future, and the remedying of any existing, impairment of visibility in mandatory class I Federal areas which impairment results from manmade air pollution.” 42 U.S.C. § 7491(a)(1). To that end, EPA issued the RHR, which requires the states (or EPA where a state fails to act) to make incremental, “reasonable progress” toward eliminating human-caused visibility impairment at each Class I area by 2064. 40 C.F.R. § 51.308(d)(1), (d)(3). Together, the Act and EPA’s RHR require states to periodically develop and implement state implementation plans (“SIPs”), each of which must contain a long-term strategy encompassing *enforceable* “emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward the national goal.” 42 U.S.C. § 7491(b)(2); *see also* 42 U.S.C. § 7410(a)(2); 40 C.F.R. § 51.308.

In developing its long-term strategy, a state must consider its anthropogenic sources of visibility impairment and evaluate different emission reduction strategies including and beyond those prescribed by the BART provisions.¹⁹ A state should consider “major and minor stationary sources, mobile sources and area sources.”²⁰ At a minimum, a state must consider the following factors in developing its long-term strategy:

- (A) Emission reductions due to ongoing air pollution control programs, including measures to address reasonably attributable visibility impairment;
- (B) Measures to mitigate the impacts of construction activities;
- (C) Emissions limitations and schedules for compliance to achieve the reasonable progress goal;
- (D) Source retirement and replacement schedules;
- (E) Smoke management techniques for agriculture and forestry management purposes including plans as currently exist within the State for these purposes;
- (F) Enforceability of emission limitations and control measures; and
- (G) The anticipated net effect on visibility due to projected changes in point, area, and mobile emissions over the period addressed by the long-term strategy.²¹

Additionally, a state “[m]ust include in its implementation plan a description of the criteria it used to determine which sources or groups of sources it evaluated and how the four factors were taken into consideration in selecting the measures for inclusion in its long-term strategy.”²²

¹⁹ 40 C.F.R. § 51.308(f).

²⁰ *Id.* § 51.308(f)(2)(i).

²¹ *Id.* § 51.308(f)(2)(iv).

²² *Id.* § 51.308(f)(2)(i).

In developing its plan, the state must document the technical basis for the SIP, including monitoring data, modeling, and emission information, including the baseline emission inventory upon which its strategies are based.²³ All of this information is part of a state's revised SIP and subject to public notice and comment. A state's reasonable progress analysis must consider the four factors identified in the Act and regulations. *See* 42 U.S.C. § 7491(g)(1); 40 C.F.R. § 51.308(f)(2)(i) ("the costs of compliance, the time necessary for compliance, the energy and non-air quality environmental impacts of compliance, and the remaining useful life of any potentially affected anthropogenic source of visibility impairment."). Notably, the statute does *not* list visibility improvement as a fifth factor in the reasonable progress analysis, and in implementing those statutory factors, EPA has made clear that it is *not* appropriate to reject a cost-effective control measures based on purportedly insufficient visibility benefits. In determining whether each state's haze plan satisfies the statutory mandate to make reasonable progress, EPA reviews adherence to the above-mentioned criteria, i.e. the four factors for reasonable progress, as well as the requirements for consultation with other states and federal land managers.²⁴

B. EPA's 2017 Revisions to the Regional Haze Rule

On January 10, 2017, the EPA revised the RHR to strengthen and clarify the reasonable progress and consultation requirements of the rule.²⁵ In particular, the rule revisions make clear that states are to *first* conduct the required four-factor analysis for its sources, and *then* use the results from its four-factor analyses and determinations to develop its reasonable progress goals.²⁶ Thus, the rule "codif[ies]" EPA's "long-standing interpretation" of the SIP "planning sequence" States are required to follow:

- [C]alculate baseline, current and natural visibility conditions, progress to date and the [Uniform Rate of Progress] URP;
- [D]evelop a long-term strategy for addressing regional haze by evaluating the four factors to determine what emission limits and other measures are necessary to make reasonable progress;
- [C]onduct regional-scale modeling of projected future emissions under the long-term strategies to establish RPGs and then compare those goals to the URP line; and
- [A]dopt a monitoring strategy and other measures to track future progress and ensure compliance.²⁷

Thus, the RHR makes clear that a state must conduct four-factor analyses and cannot rely on uniform rate of progress as an excuse for failing to perform the core functions of the law. Indeed:

²³ *Id.*

²⁴ 40 C.F.R. §§ 51.308(d)(1)(iii)-(iv); (d)(3); (f).

²⁵ *See generally* 82 Fed. Reg. 3078 (Jan. 10, 2017).

²⁶ *Id.* at 3,090-91.

²⁷ *Id.* at 3,091.

The CAA requires states to determine what emission limitations, compliance schedules and other measures are necessary to make reasonable progress by considering the four factors. The CAA does not provide that states may then reject some control measures already determined to be reasonable if, in the aggregate, the controls are projected to result in too much or too little progress. Rather, the rate of progress that will be achieved by the emission reductions resulting from all reasonable control measures is, by definition, a reasonable rate of progress. ... [I]f a state has reasonably selected a set of sources for analysis and has reasonably considered the four factors in determining what additional control measures are necessary to make reasonable progress, then the state's analytical obligations are complete if the resulting RPG for the most impaired days is below the URP line. *The URP is not a safe harbor*, however, and states may not subsequently reject control measures that they have already determined are reasonable.²⁸

Moreover, for each Class I area within its borders, a state must determine the uniform rate of progress—which is the amount of progress that, if kept constant each year, would ensure that natural visibility conditions are achieved in 2064.²⁹ If a state establishes reasonable progress goals that provide for a slower rate of improvement in visibility than the uniform rate of progress, the state must provide a technically “robust” demonstration, based on a careful consideration of the statutory reasonable progress factors, that “there are no additional emission reduction measures for anthropogenic sources or groups of sources” that can reasonably be anticipated to contribute to visibility impairment in affected Class I areas.³⁰

Although many states addressed the Act's BART requirements in their initial regional haze plans, EPA's 2017 revisions to the RHR make clear that BART was not a once-and-done requirement. Indeed, states “will need” to reassess “BART-eligible sources that installed only moderately effective controls (or no controls at all)” for any additional technically-achievable controls in the second planning period.³¹

To the extent that a state declines to evaluate additional pollution controls for any source relied upon to achieve reasonable progress based on that source's planned retirement or decline in utilization, it must incorporate those operating parameters or assumptions as enforceable limitations in the second planning period SIP. The Act requires that “[e]ach state implementation plan . . . shall” include “enforceable limitations and other control measures” as necessary to “meet the applicable requirements” of the Act. 42 U.S.C. § 7410(a)(2)(A). The RHR similarly requires each state to include “enforceable emission limitations” as necessary to ensure reasonable progress toward the national visibility goal.³² Therefore, where the state

²⁸ *Id.* at 3,093 (emphasis added).

²⁹ 40 C.F.R. § 51.308(d)(1)(i)(B).

³⁰ *Id.* § 51.308 (f)(2)(ii)(A).

³¹ 82 Fed. Reg. at 3,083; *see also id.* at 3,096 (“states must evaluate and reassess all elements required by 40 CFR 51.308(d)”).

³² *See* 40 C.F.R. § 51.308(d)(3) (“The long-term strategy must include enforceable emissions limitations, compliance schedules, and other measures as necessary to achieve the reasonable progress goals established by States having mandatory Class I Federal areas.”).

relies on a source's plans to permanently cease operations or projects that future operating parameters (*e.g.*, limited hours of operation or capacity utilization) will differ from past practice, or if this projection exempts additional pollution controls as necessary to ensure reasonable progress, then the state "must" make those parameters or assumptions into enforceable limitations.³³

Finally, the state's SIP revisions must meet certain procedural and consultation requirements.³⁴ The state must consult with the Federal Land Managers ("FLMs") and look to the FLMs' expertise of the lands and knowledge of the way pollution harms them to guide the state to ensure SIPs do what they must to help restore natural skies. The rule also requires that in "developing any implementation plan (or plan revision) or progress report, the State must include a description of how it addressed any comments provided by the Federal Land Managers."³⁵

C. EPA's July 8, 2021 Regional Haze Clarification Memorandum

On July 8, 2021, EPA issued a memo which additionally clarified certain aspects of the revised RHR and provided further information to states and EPA regional offices regarding their planning obligations for the Second Planning Period.³⁶ In particular, EPA made clear that states must secure additional emission reductions that build on progress already achieved, there is an expectation that reductions are additive to ongoing and upcoming reductions under other CAA programs.³⁷ In evaluating sources for emission reductions, EPA emphasized that:

Source selection is a critical step in states' analytical processes. All subsequent determinations of what constitutes reasonable progress flow from states' initial decisions regarding the universe of pollutants and sources they will consider for the second planning period. States cannot reasonably determine that they are

³³ 40 C.F.R. §§ 51.308(i); (d)(3) ("The long-term strategy must include enforceable emissions limitations, compliance schedules . . ."); (f)(2) (the long-term strategy must include "enforceable emissions limitations"); *see also* Aug. 20, 2019 Memorandum from Peter Tsirigotis to Regional Air Directors Re: Guidance on Regional Haze State Implementation Plans for the Second Implementation Period at 22, https://www.epa.gov/sites/production/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf [hereinafter, "2019 Guidance"] ("in selecting sources for control measure analysis," the state may choose "not selecting sources that have an enforceable commitment to be retired or replaced by 2028"); *id.* at 34 (To the extent a retirement or reduction in operation "is being relied upon for a reasonable progress determination, the measure would need to be included in the SIP and/or be federally enforceable.") (citing 40 C.F.R. § 51.308(f)(2)); 2019 Guidance at 43 ("[i]f a state determines that an in-place emission control at a source is a measure that is necessary to make reasonable progress and there is not already an enforceable emission limit corresponding to that control in the SIP, the state is required to adopt emission limits based on those controls as part of its long-term strategy in the SIP via the regional haze second planning period plan submission.").

³⁴ For example, in addition to the RHR requirements, states must also follow the SIP processing requirements in 40 C.F.R. §§ 51.104, 51.102.

³⁵ *Id.* § 51.308(i)(3).

³⁶ July 8, 2021 Memorandum from Peter Tsirigotis to Regional Air Directors, Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period at 3, <https://www.epa.gov/visibility/clarifications-regarding-regional-haze-state-implementation-plans-second-implementation> [hereinafter, "2021 Clarification Memo"].

³⁷ *Id.* at 2.

making reasonable progress if they have not adequately considered the contributors to visibility impairment. Thus, while states have discretion to reasonably select sources, this analysis should be designed and conducted to ensure that source selection results in a set of pollutants and sources the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment.³⁸

Thus, it is generally not reasonable to exclude from further evaluation large sources or entire sectors of visibility impairing pollution.

Moreover, the 2021 Clarification Memo reiterates that the fact that a Class I area is meeting the Uniform Rate of Progress is “not a safe harbor” and does not excuse the state from its obligation to consider the statutory reasonable progress factors in evaluating reasonable control options.³⁹ In addition, the 2021 Clarification Memo makes clear that a state should not reject cost-effective and otherwise reasonable controls merely because there have been emission reductions since the first planning period owing to other ongoing air pollution control programs or merely because visibility is otherwise projected to improve at Class I areas.⁴⁰ Ongoing air pollution controls, otherwise improved visibility, and/or air modeling results must not be used to summarily assert that a state has already made sufficient progress and, as a result, no sources need to be selected or no new controls are needed regardless of the outcome of four-factor analyses.⁴¹ As noted above, the reasonable progress four-factor analysis is the vehicle for identifying reasonable control measures, limitations, etc., necessary during this second implementation period, and a statutory four-factor analysis must specifically include consideration of:

1. Consider the costs of compliance,
2. The time necessary for compliance,
3. The energy and non-air quality environmental impacts of compliance, and
4. The remaining useful life of any potentially affected sources.⁴²

Notably, Congress did not include visibility, modeling results, or emission inventories as one of these four statutory factors. Thus, to the extent a state relies on purportedly insufficient air quality benefits because of visibility, emission inventories, and/or modeled impacts from a source as a justification for refusing to require cost-effective emission reductions, the state’s analysis is inconsistent with the CAA and the RHR.

The 2021 Clarification Memo also instructs that, for sources that have previously installed controls, states should still evaluate the “full range of potentially reasonable options for reducing emissions,” including options that may “achieve greater control efficiencies, and, therefore, lower emission rates, using their existing measures.”⁴³ Moreover, “[i]f a state

³⁸ *Id.* at 3.

³⁹ *Id.* at 2.

⁴⁰ 2021 Clarification Memo at 13.

⁴¹ 2021 Clarification Memo at 13.

⁴² 42 U.S.C. § 7491(g)(1); 40 C.F.R. § 51.308(f)(2)(i).

⁴³ *Id.* at 7.

determines that an in-place emission control at a source is a measure that is necessary to make reasonable progress and there is not already an enforceable emission limit corresponding to that control in the SIP, the state is required to adopt emission limits based on those controls as part of its long-term strategy in the SIP via the regional haze second planning period plan submission.”⁴⁴ This also means that so-called “on-the-way” measures, including anticipated shutdowns or reductions in a source’s emissions or utilization, that are relied upon to forgo a four-factor analysis or to shorten the remaining useful life of a source “*must* be included in the SIP” as enforceable emission reduction measures.⁴⁵

Finally, the 2021 Clarification Memo confirms EPA’s recommendation that states take into consideration environmental justice concerns and impacts in issuing any SIP revision for the second planning period.

In sum, EPA’s 2021 Clarification Memo makes clear that the states’ regional haze plans for the second planning period must include meaningful emission reductions to make reasonable progress towards the national goal of restoring visibility in Class I areas. The 2021 Clarification Memo confirms that EPD’s efforts to avoid emission reductions—by asserting, for example, that reductions are not necessary because visibility has improved,⁴⁶ because reductions are anticipated at some later date or due to implementation of another program,⁴⁷ or because a source has some level of control⁴⁸—is at odds with Georgia’s haze obligations under the CAA and the RHR itself. Indeed, “a state should generally not reject cost-effective and otherwise reasonable controls merely because there have been emission reductions since the first planning period owing to other ongoing air pollution control programs or merely because visibility is otherwise projected to improve at Class I areas.”⁴⁹

D. Where a Source is Unwilling to Conduct the Required Reasonable Progress Analysis, the Responsibility Must be Met by the State

The duty to ensure that a SIP satisfies the requirements of the RHR ultimately rests with the state, not the source.⁵⁰ If Georgia, another state, or the Federal Land Managers identify a source as impacting visibility in a Class I area, thereby warranting a four-factor analysis of potential reasonable progress controls, EPD must conduct such an analysis or provide a demonstration that any emission reductions or controls would be futile to inform its reasonable progress determination.⁵¹ For those sources that submit their own four-factor analyses, EPD has an obligation to independently review that analysis. The state must not “rubber stamp” a source’s analysis. If a source prepares an inaccurate, incomplete, or undocumented four-factor analysis,

⁴⁴ *Id.* at 8.

⁴⁵ *Id.* at 8-9 (emphasis added).

⁴⁶ Proposed SIP at 33, (“Emissions of SO₂ and other visibility impairing pollutants are reducing, as discussed in Section 7, and these reductions are resulting in better visibility.”)

⁴⁷ *Id.* at 105.

⁴⁸ *Id.* at 202.

⁴⁹ 2021 Clarification Memo at 13.

⁵⁰ 40 C.F.R. § 51.308(d).

⁵¹ 2021 Clarification Memo § 2.2.

the state must either require the source to make the necessary corrections or make the corrections itself.

E. Enforceable Emission Reductions to Make Reasonable Progress Must be Included in Georgia's SIP

As state cannot rely on unspecified permit provisions as providing emission reductions necessary to ensure reasonable progress. The CAA requires states to submit implementation plans that “contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal” of achieving natural visibility conditions at all Class I Areas.⁵² The RHR requires that states must revise and update its regional haze SIP, and the “periodic comprehensive revisions must include the “enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress as determined pursuant to [40 C.F.R. §§ 51.308](f)(2)(i) through (iv).”⁵³ EPA’s Guidance further explains these requirements: “This provision requires SIPs to include enforceable emission limitations and/or other measures to address regional haze, deadlines for their implementation, and provisions to make the measures practicably enforceable including averaging times, monitoring requirements, and record keeping and reporting requirements.”⁵⁴

Thus, while the SIP is the basis for demonstrating and ensuring state plans meet RHR requirements, state-issued permits must complement the SIP.⁵⁵ In addition, to the extent that a state relies on any expected retirement, reduction in utilization, or reduction in emissions as a result of a permit provision in its reasonable progress analysis, those emission reductions must be included as enforceable emission limitations in the SIP itself.⁵⁶ Finally, reasonable progress requirements apply to all sources, and states must not rely on existing permits to allow sources to avoid the four-factor analysis; there is no off-ramp for sources that hold permits.

III. EPD’S SOURCE SELECTION METHODOLOGY IS FLAWED

EPD’s source selection methodology—and its reliance on faulty VISTAS work products—arbitrarily screened out nearly all sources of visibility-impairing pollution from evaluation of cost-effective emission reductions. EPA’s 2021 Clarification Memo makes clear that EPD’s source selection methodology is flawed and cannot be approved by EPA. Instead, states must secure additional emission reductions that build on progress already achieved; EPA’s expectation is that reductions add to ongoing and upcoming reductions under other CAA programs.⁵⁷ In evaluating sources for emission reductions, EPA emphasized that:

⁵² 42 U.S.C. §§ 7491(a)(1), (b)(2).

⁵³ 40 C.F.R. § 51.308(f)(2); 40 C.F.R. § 51.308(d)(3)(v)(F) (Enforceability of emission limitations and control measures).

⁵⁴ 2019 Guidance at 42-43 (While NPCA and Sierra Club filed a Petition for Reconsideration regarding EPA’s issuance of the 2019 Guidance, it does not dispute the information in the Guidance referenced here regarding enforceable limitations, which cite to the “General Preamble for the Implementation of Title I of the Act Amendments of 1990, 74 Fed. Reg. 13,498 (Apr. 16, 1992)).

⁵⁵ 74 Fed. Reg. at 13,568.

⁵⁶ 42 U.S.C. §§ 7410(a)(2), 7491(b)(2); *see also* 40 C.F.R. § 51.308(d), (f).

⁵⁷ 2021 Clarification Memo at 2.

Source selection is a critical step in states' analytical processes. All subsequent determinations of what constitutes reasonable progress flow from states' initial decisions regarding the universe of pollutants and sources they will consider for the second planning period. States cannot reasonably determine that they are making reasonable progress if they have not adequately considered the contributors to visibility impairment. Thus, while states have discretion to reasonably select sources, this analysis should be designed and conducted to ensure that source selection results in a set of pollutants and sources the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment.⁵⁸

Therefore, it is generally not reasonable to exclude larger sources of visibility-impairing pollution from further evaluation. As discussed later in these comments, EPD notified Florida, South Carolina, Kentucky, Tennessee, Ohio, Indiana, and Pennsylvania of concerns with certain sources in those states, but EPD ultimately dropped its concerns and accepted whatever the responding state sent in reply. As a result of EPD's faulty screening methodology, the Proposed SIP includes four-factor analyses for only three sources.

A. Significant Flaws in VISTAS Regional Haze CAMx Modeling and Methods

As explained in the May 12, 2021, letter to the Air Division Directors of the VISTAS states, NPCA commissioned an expert modeler to better understand the VISTAS approach and found fundamental flaws in the VISTAS modeling inputs and methods as well as the modeling approach recommended to Southeastern states.⁵⁹ Yet, EPD followed the VISTAS approach in its Proposed SIP, and thus, as explained below and in the attached expert exhibits incorporated by reference to our comments, Georgia's Proposed SIP fails to comply with the state's obligations under the CAA and RHR.

1. Summary of VISTAS Flawed Modeling Input and Methodology Used to Identify Sources

NPCA's commissioned independent review revealed that the VISTAS modeling effort suffers from four fatal approvability flaws summarized in Table 2 and further discussed below.

Table 2. Summary of VISTAS II CAMx Modeling Flaws and Consequences

	Flawed Modeling Inputs and Methods	Consequences of Reliance on VISTAS Inputs By States in Preparing SIPs
1	Inaccurately reflects sulfate concentrations in the Southeast U.S.	Would excuse heavy sulfur dioxide (SO ₂) polluters from review.

⁵⁸ *Id.* at 3.

⁵⁹ We incorporate by reference to these comments the Letter from Stephanie Kodish, NPCA, Leslie Griffith, SELC, and David Rogers, Sierra Club to VISTAS State Air Directors, "Significant Flaws in VISTAS Regional Haze CAMx Modeling and Methods; Recommendations to Develop Compliant State Implementation Plans" (May 12, 2021) (Exhibit 3).

2	Used Electric Generating Unit (EGU) emission profiles from 2011 to project the EGUs emissions in 2028, inaccurately assuming that EGUs will operate in 2028 as they did in 2011.	Would fail to identify EGUs that must be analyzed for emission reductions because the model results do not accurately reflect the actual/most recent EGUs' contributions to visibility impairment.
3	Used outdated monitoring data that does not represent the dramatic shift in nitrate contribution to visibility impairment in the Southeast over the last 5-10 years. This shift was not reflected in future predictions.	Would erroneously exclude problematic sources from review and avoid emission controls for large NO _x emitting sources because the modeling inputs failed to properly identify EGUs and other point sources with large NO _x emissions as contributing to Class I area visibility impairment.
4	Used high thresholds and unnecessary filters to select sources to analyze for emission reducing measures.	Would result in an unreasonably low number of industrial sources selected by each state for an emission control reasonable progress four-factor analysis.

2. VISTAS's High Thresholds and Flawed Methodology Excluded Polluting Sources that Should be Addressed and Considered for Emission Reducing SIP Measures.

By relying on the flawed VISTAS modeling to select which polluting sources to review for emission reductions, the Southeastern states are poised to ignore hundreds of significant emission sources. According to NPCA's analysis, by solely relying on the VISTAS' approach, Georgia:

- Selected only three of the numerous point sources affecting Class I areas for four-factor analyses. In contrast, the Federal Land Managers identified three *additional* major industrial facilities in Georgia that degrade visibility in at least 23 Class I areas. And as noted above, EPD should reevaluate the sources listed in Table 1, based on their Q/d contribution to Class I areas;⁶⁰
- Failed to require any further emission reduction measures from facilities which did submit a four-factor analysis;
- Ignores the fact that many of these major sources are where many people live below the poverty line.

EPD must revise its SIP to the extent it proposes to rely on VISTAS modeling and other flawed assumptions discussed in the May 12, 2021 letter and in these comments and incorporated expert reports.

B. EPD's Reliance on VISTAS Flawed Approach Unreasonably Excluded Sources.

In the Proposed SIP, EPD relied on the VISTAS approach, explaining that, for Class I areas in Georgia, a total of seventeen facilities exceeded the $\geq 1.00\%$ PSAT threshold for sulfate only, but only three of these facilities (*i.e.*, Georgia Power's Plant Bowen, International Paper

⁶⁰ The National Park Service identified Georgia Power Company's Plant Scherer, International Paper Co Rome Linerboard (Temple Inland), and Georgia Power Company's Plant Wansley as facilities for which EPD should have conducted four-factor analyses. App'x H-1 at 9.

(IP) Savannah, and Brunswick Cellulose) are located in Georgia. EPD requested four-factor analyses from those three facilities for the reduction of SO₂ emissions.⁶¹ There are numerous issues with EPD's source selection methodology. For example:

- EPD does not provide a reasoned basis for using a 1.00% PSAT threshold for selecting facilities, and its assertion that "...the VISTAS screening approach results in a reasonable number of sources that can be evaluated..."⁶² is incorrect as it only identifies three sources in Georgia.⁶³
- As discussed below, EPD's reply to the FLM's criticism of its source selection strategy is inadequate.⁶⁴
- Would allow electric generating units in Georgia to continue to emit more than 18,009 tons per year of NO_x and 12,200 tons per year of SO₂, dirtying the air in our national parks and wilderness areas and communities.⁶⁵

IV. EPD WRONGLY EXEMPTED EGUS FROM ITS REASONABLE PROGRESS AND FOUR-FACTOR ANALYSES.

EPD's ability to exclude sources, including EGUs, from reasonable progress and four-factor analyses is constrained by the clear language of the RHR as well as EPA's guidance to states for implementing the Rule. Specifically, EPD's source selection for its reasonable progress analysis must be based on reasonable factors that will actually progress the state toward achieving necessary visibility impairing pollution reductions during this second implementation period. EPA has emphasized that while states have discretion to select sources for its reasonable progress analysis, this analysis should be "designed and conducted to ensure that source selection results in a set of pollutants and sources, the evaluation of which has the potential to meaningfully reduce their contributions to visibility impairment."⁶⁶ As recognized by EPD, "[a] state opting to select a set of its sources to analyze must reasonably choose factors and apply them in a reasonable way given the statutory requirement to make reasonable progress towards natural visibility."⁶⁷ This step is crucial to meeting the RHR's mandate to eliminate anthropogenic sources of regional haze in our nation's Class I areas, and EPD must get it right in order to comply with its SIP obligations under the Act.

⁶¹ Proposed SIP at 196, ("The three Georgia facilities listed in Table 7-29 were contacted on July 10, 2020 and asked to perform a reasonable progress analysis.")

⁶² Proposed SIP at 193.

⁶³ As NPS notes, "Georgia is in the top 30% of the highest SO₂ and NO_x emitting states in the country and selected three sources for reasonable progress analysis. For comparison, the state of Idaho selected nine sources but is ranked among the states with the lowest SO₂ plus NO_x emissions. Georgia is ranked 17th for the highest SO₂ plus NO_x emissions amongst all U.S. states, with 63,925 tons/year of NO_x and 32,569 tons/year of SO₂ emissions statewide. Idaho is ranked 45th with 8,008 tons/year of NO_x emissions and 2,571 tons/year of SO₂ emissions. Idaho's statewide emission burden is roughly one tenth of Georgia's, yet Idaho selected and evaluated three times as many sources for reasonable progress four-factor analysis." NPS Consultation Comments at 7.

⁶⁴ *Id.* at 242-3.

⁶⁵ See EPA's 2019 Air Markets Data Program ("AMPD") for the Bowen Hammond, Yates, Wansley, McIntosh, Sherer, and Albany Green power plants. <https://ampd.epa.gov/ampd/>.

⁶⁶ 2021 Clarification Memo at 3.

⁶⁷ Proposed SIP at 192 (citing EPA's 2019 guidance).

As currently proposed, though, EPD has failed to choose reasonable factors and reasonably apply them to a number of Georgia EGUs. As a result, EPD has improperly excluded EGUs from its reasonable progress and four factor analyses. Specifically, EPD failed to include four-factor analyses for the following large EGU sources of visibility impairing pollutants:

1. Georgia Power Company – Scherer
2. Georgia Power Company – Wansley
3. Green Power Solutions of Georgia, LLC

As discussed below and in the attached report, the state’s bases for excluding Georgia Power Company Plants Scherer and Wansley, and Green Power’s EGUs are flawed. In addition, EPD has failed to provide any discussion or justification for excluding these EGUs from its reasonable progress analysis.

Given that EGUs generally contribute the majority of point source sulfate and nitrate visibility impairment in VISTAS Class I areas,⁶⁸ the state cannot make a determination as to whether it is making reasonable progress if it has not adequately considered appropriate EGU sources during this second planning period.⁶⁹ In order to fully comply with the RHR, Georgia must at least include the above-listed facilities in its reasonable progress analysis and conduct SO₂ and NO_x four-factor analyses for these EGUs.

A. EPD’s exclusion of Georgia Power Company’s Plant Scherer and Plant Wansley, and Green Power Solutions of Georgia EGUs from a reasonable progress and four-factor analysis based on PSAT Modeling Results is unreasonable.

According to the Proposed SIP, “all VISTAS states are using the AoI/PSAT approach and a $\geq 1.00\%$ PSAT threshold by facility for screening sources for reasonable progress evaluation . . . VISTAS states agreed that all facilities with a $\geq 1.00\%$ PSAT threshold for sulfate or nitrate will be examined for reasonable progress.”⁷⁰ Based on this high and arbitrary VISTAS threshold, EPD excluded Georgia Power Company’s Plants Scherer and Wansley, and Green Power Solutions from a reasonable progress four-factor analysis.⁷¹ However, there are a number of flaws with VISTAS’s modeling that makes exclusion of Plants Scherer and Wansley unreasonable.

Because Plants Scherer and Wansley and Green Power Solutions’ EGUs were excluded from a reasonable progress analysis based on flawed PSAT visibility contribution modeling results,⁷² EPD must require these facilities be subject to a reasonable progress analysis for SO₂ (and NO_x).

⁶⁸ Proposed SIP at 137-138 (Figures 7-18 and 7-19).

⁶⁹ 2021 Clarification Memo at 3.

⁷⁰ Proposed SIP at 193.

⁷¹ Proposed SIP at 174.

⁷² Proposed SIP at 188 (“some sources near a Class I area were tagged for PSAT but were found to not have a significant contribution to visibility impairment.”)

Four-factor analyses should be conducted for these facilities not only for SO₂, but for NO_x as well. Although SO₂ is the dominant visibility impacting pollutant for Georgia's Class I area, potential cost-effective NO_x controls, optimizations, and/or upgrades cannot be ignored. EPA reinforces this point in its 2021 Clarification memo, stating that:

Consistent with the first planning period, EPA generally expects that each state will analyze sulfur dioxide (SO₂) and nitrogen oxide (NO_x) in selecting sources and determining control measures. In nearly all Class I areas, the largest particulate matter (PM) components of anthropogenic visibility impairment are sulfate and nitrate, caused primarily by PM precursors SO₂ and NO_x, respectively. A state that chooses not to consider at least these two pollutants in the second planning period should show why such consideration would be unreasonable, especially if the state considered both these pollutants in the first planning period.⁷³

Here, consideration of NO_x is especially important given that, “[u]nlike the data for the baseline period of 2000 to 2004, where nearly all days with poor visibility were heavily dominated by sulfate impairment, the 2014 to 2018 data show some 20% most impaired days having large organic matter or nitrate impacts at Georgia Class I areas.”⁷⁴

Indeed, EPA's intention for this second planning period of the regional haze program is clear: Georgia must “secure meaningful reductions in visibility impairing pollutants that build on the significant progress states have already achieved.”⁷⁵ As EPA notes, “[t]here exist many opportunities for states to leverage both ongoing and upcoming emission reductions under other CAA programs; however, we also expect states to undertake rigorous reasonable progress analyses that identify further opportunities to advance the national visibility goal consistent with the statutory and regulatory requirements.”⁷⁶

B. EPD's exclusion of Plants Scherer and Wansley, and Green Power Solutions EGUs from a reasonable progress analysis is unsupported.

Georgia Power's Plant Scherer is located near Juliette, in Monroe County, about 210.2 km from Cohutta Wilderness Area. It consists of three EGUs which are equipped with SCR, baghouses, and wet lime FGD scrubbers. Table 7-32 of the Proposed SIP shows all the facilities in Georgia with SO₂ emissions greater than 100 tpy in 2017.⁷⁷ Plant Scherer's 2028 modeled emissions were 1,985 tpy SO₂ (tenth highest of the twenty-eight listed sources), and Plant Wansley's 2028 modeled emissions were 4,856 tpy SO₂ (seventh highest of the twenty-eight sources).⁷⁸ However, despite their significant SO₂ emissions, Georgia's Proposed SIP fails to consider these two sources in its reasonable progress analysis and long-term strategy.

⁷³ 2021 Clarification Memo at 4-5.

⁷⁴ Proposed SIP at 104.

⁷⁵ 2021 Clarification Memo at 2.

⁷⁶ 2021 Clarification Memo at 2.

⁷⁷ Proposed SIP at 198.

⁷⁸ *Id.*

1. Georgia Power's Plant Scherer

EPD's Proposed SIP includes no discussion of Georgia Power's Plant Scherer, despite the facility's significant modeled SO₂ emissions. Because nothing is discussed of Plant Scherer, it is unclear whether EPD has assumed that, because Scherer was selected for a PM₁₀ BART analysis in the first planning period, it can be excluded from analysis for SO₂ and NO_x this second planning period. If the state has made that assumption, it is wrong.

Where the first-round regional haze SIPs focused primarily on BART controls for large and poorly controlled sources, this second implementation period is focused on reasonable progress measures. Thus, even if Georgia had satisfied BART requirements for Scherer in its round one regional haze SIP, that would not exclude the state from reviewing this source for reasonable progress in this second planning period. Section 51.308(e)(5) makes clear that BART analyses and controls implemented in the first round of regional haze SIPs have no effect on a second round reasonable progress determination: "After a State has met the requirements for BART or implemented an emissions trading program or other alternative measure that achieves more reasonable progress than the installation and operation of BART, BART-eligible sources will be subject to the requirements of paragraphs (d) and (f) of this section, as applicable, in the same manner as other sources."⁷⁹ EPA's 2019 Guidance further makes plain and is reinforced by the 2021 Clarification Memo that BART sources are not to be categorically excused from reasonable progress analysis and requirements.⁸⁰

This is especially important regarding Georgia Power Company's Plant Scherer given the National Park Service's comments on EPD's Proposed SIP:

The SCR systems on Units 1–3 are operating at 53%–74% control efficiency and achieving average annual emission rates of 0.12–0.15 lb/mmBtu. NPS review finds that **Scherer Units 1–3 are not effectively controlled for NO_x emissions.** According to the CAMD database, the SCR units were installed between 2010 and 2013. The EPA Control Cost Manual (CCM) Chapter on SCR notes that modern SCR systems on "commercial coal-, oil-, and natural gas-fired SCR systems are often designed to meet control targets of over 90 percent" (down to 0.04 lb/MMBtu). This suggest[s] that **the Scherer SCR systems have low performance in comparison to other similar units. The NPS recommends that GA EPD require an evaluation of the SCR systems for the Scherer units and investigate ways to improve performance and reduce NO_x emissions.**⁸¹

Thus, EPD must revise its Proposed SIP to include Plant Scherer in its reasonable progress analysis and require a four-factor analysis for the plant.

To the extent that Georgia may have declined to conduct a reasonable progress analysis for Plant Scherer based on Georgia Power's recent 20-year integrated resource plan, which

⁷⁹ 40 CFR § 51.308(e)(5).

⁸⁰ 2019 Guidance at 24; 2021 Clarification Memo at 14.

⁸¹ NPS Consultation Comments at 25, emphasis added.

assumes that Plant Scherer will be retired by 2028,⁸² Georgia must appropriately address any potential unit retirements in this SIP. As it stands, it is unclear what, if any, emission reductions EPD accounts for in the Proposed SIP from their silence regarding Plant Scherer. Under EPA's guidance document for the second planning period, states cannot rely on a source's remaining useful life to avoid conducting a four-factor analyses unless the source has "an enforceable commitment to be retired or replaced by 2028."⁸³ If EPD plans to rely on possible future retirements for any purpose in this regional haze SIP, those retirements must be clearly documented in the SIP, and the SIP must contain practically enforceable emission limitations reflecting the retirement. Even then, EPD is obligated to consider whether there are cost-effective control measures that could be implemented in the meantime.

Therefore, Georgia must include Plant Scherer in its reasonable progress analysis or, at minimum, provide adequate justification for why it has not.

2. Georgia Power's Plant Wansley

Plant Wansley is located in Franklin, Heard County. Its two EGUs are equipped with SCR, ESPs, and wet FGD scrubbers. EPD's Proposed SIP includes only a brief discussion of Plant Wansley, despite the facility's significant modeled SO₂ emissions:

This facility is 156.8 km from the Cohutta Wilderness Area and the AoI sulfate contribution is 1.05%. SO₂ emissions used in the AoI analysis was 4,856.0 tpy. The SO₂ emissions for the past three years were 2,720.78 tpy (2017), 2,134.03 tpy (2018), and 1,656.01 tpy (2019) and the average over this period was 2,170.27 tpy. Scaling the AoI sulfate contribution of 1.05% by the ratio of current to 2028 SO₂ emissions (2,170.27/4,856.0) results in a revised AoI sulfate contribution of 0.47%; therefore, this facility will be screened out due to insignificant visibility impacts at the Cohutta Wilderness Area.⁸⁴

To the extent that Georgia may have based their decision to decline to conduct a reasonable progress analysis for Plant Wansley on Georgia Power's recent 20-year integrated resource plan's assumption that Plant Wansley will be retired in 2022,⁸⁵ Georgia must appropriately address any potential unit retirements in this SIP. Regardless of whether Georgia Power Company plans to retire Plant Wansley, NPS "recommend[ed] that pending closures and/or reductions in utilization should be made federally enforceable under the haze SIP and

⁸² Georgia Power Company, 2022 Integrated Resource Plan at 1-5 (filed Jan. 31, 2022), <https://psc.ga.gov/search/facts-document/?documentId=188519>, hereinafter "Georgia Power's 2022 IRP." Georgia Power's 2022 IRP mentions that, for planning purposes, the IRP filing reflects the retirement of the Scherer Units 1 and 2 by December 31, 2028 and requested decertification of Scherer Unit 3 by December 31, 2028. It is unclear what emission reductions, if any, EPD accounts for in the Proposed SIP from these assumed closures.

⁸³ 2019 Guidance at 22; *see also id.* at 34 ("To the extent such a requirement is being relied upon for a reasonable progress determination, the measure would need to be included in the SIP and/or be federally enforceable. See 40 CFR 51.308(f)(2).").

⁸⁴ Proposed SIP at 193-4.

⁸⁵ Georgia Power's 2022 IRP at 8. This seems to be the case since, according to NPS's comments, "during the NPS/GA June 14, 2022 consultation call, GA EPD noted that the Georgia Power Company recently announced that they plan to close the Wansley plant units." NPS Consultation Comments at 19.

occur within this regional haze planning period.”⁸⁶ Although Plant Wansley is “equipped with control equipment typically considered top tier emission controls (i.e., wet FGD scrubbers for SO₂ and SCR for NO_x),” NPS “review of 2010–2021 CAMD emissions data indicates that SO₂ and NO_x emission rates have been generally increasing in recent years.”⁸⁷

The CAA requires that “[e]ach state implementation plan . . . shall” include “enforceable limitations and other control measures” as necessary to “meet the applicable requirements” of the Act.⁸⁸ The RHR, under Section 51.308(d)(3) similarly requires each state to include “enforceable emission limitations” as necessary to ensure reasonable progress toward the national visibility goal. Consistent with EPA’s past practice, the agency’s regulations, and the requirements of the Act itself, EPD cannot simply decline to evaluate Wansley for reasonable progress unless the retirement is included as an enforceable measure. As NPS noted, “[u]nless a federally enforceable shutdown is required by 2028, we request that GA EPD establish emission limits for SO₂ and NO_x that reflect the capabilities of the emission controls currently installed on the Wansley units. For example, the CAMD data suggest that the Wansley EGUs could achieve a SO₂ emission rate of 0.04–0.07 lb/mmBtu and a NO_x emission rate of 0.06–0.07 lb/mmBtu.”⁸⁹ Therefore, Georgia must include Plant Wansley in its reasonable progress analysis or, at minimum, provide adequate justification for why it has not.

3. Green Power Solutions of Georgia, LLC

Green Power Solutions of Georgia, LLC is located in Laurens, approximately 168 km from Okefenokee National Wilderness Area. Green Power operates a biomass power plant that produces electricity for Georgia Power using several fuel sources including wood fuel.⁹⁰ Green Power has a cumulative Q/d value of 27.1 based on 2017 emissions. According to NPCA’s analysis, emissions from this source potentially impact 21 Class I areas, including Okefenokee, located approximately 110 miles from the source. It is a significant source of NO_x (323 tons/year) and SO₂ emissions (1,079 tons/year).⁹¹ Despite the source’s significant NO_x and SO₂ emissions, EPD’s Proposed SIP does not discuss this EGU at all, other than including it on Table 7-32, “SO₂ Emissions Comparison Between 2017, 2018, 2019, and 2028.”⁹² Georgia must include Green Power in its reasonable progress analysis or, at minimum, provide adequate justification for why it has not.

C. EPD’s Proposed Reasonable Progress Analysis for Plant Bowen is Inconsistent with the Clean Air Act and Regional Haze Rule Requirements.

EPD identified only one Georgia EGU facility for which to evaluate additional SO₂ controls for reasonable progress in its Class I Areas—Georgia Power Company’s Plant Bowen

⁸⁶ NPS Consultation Comments at 19.

⁸⁷ *Id.*

⁸⁸ 42 U.S.C. § 7410(a)(2)(A).

⁸⁹ NPS Consultation Comments at 23.

⁹⁰ Green Power Solutions of Georgia, LLC, available at: <https://www.beasleygroup.com/green-power-solutions.cms>

⁹¹ Based on NPCA’s analysis, <https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

⁹² Proposed SIP at 198, Table 7-32.

(Units 1-4).⁹³ Plant Bowen consists of four EGUs (Units 1-4). It is located in Bartow County, about 185 km from Great Smoky Mountains National Park and 84.3 km from Cohutta Wilderness Area. Plant Bowen is ranked number one among the Georgia facilities for haze contributions in VISTAS Class I areas based on both AoI and PSAT source screening results. Florida's DEP, North Carolina's DAQ, Tennessee's DEC and South Carolina's DHEC requested a reasonable progress analysis for Georgia Power Company's Plant Bowen since this facility significantly contributes to visibility impairment in those states' Class I areas.⁹⁴ However, in its Proposed SIP, EPD concluded that Bowen is "already subject to various stringent emission limits, and emissions reductions have already been made at the facility. Currently, the coal-fired electric generating units (EGUs), Units 1-4, must burn <3% sulfur coal and are fully controlled for SO₂ with FGD scrubbers. All units are subject to the Georgia Multi-pollutant Rule (ss), which requires the scrubbers to be operated with an average 95% removal rate or greater, and scrubber operation is further optimized for compliance with all applicable regulations, including the Mercury and Air Toxics Standard (MATS), and Effluent Limitation Guidelines (ELG)." EPD further considered that, "[c]ompared to emissions preceding installation of the scrubber, Plant Bowen has reduced annual SO₂ emissions from Units 1-4 by over 96%."⁹⁵

EPD's conclusion in its Proposed SIP is that "Units 1-4 are fully controlled with wet FGD scrubber systems that are operated and maintained to optimize performance for not only SO₂ emissions removal but also for other environmental compliance requirements, such as MATS mercury emissions limits and ELG selenium wastewater treatment."⁹⁶ This erroneous conclusion stems from a flawed reasonable progress and four-factor analysis for the Plant Bowen in which Georgia Power Company identified only three potential SO₂ control technologies for evaluation: (1) coal switching to Powder River Basin (PRB) coal, (2) coal switching to Central Appalachian (CAPP) coal, and (3) replacing the current FGD scrubbers with dry FGD scrubbers.⁹⁷ It did not evaluate upgrades or optimization of existing wet scrubber systems. As discussed below and in the attached expert report by Victoria R. Stamper, Georgia Power Company's reasonable progress and four factor analysis for Plant Bowen is inadequate and flawed.

- *Control technology evaluation of switching to 100% PRB:* Regarding Plant Bowen's control technology evaluation of switching to 100% PRB, PRB is much lower in sulfur content than Illinois Basin coal and typically has uncontrolled SO₂ emission rates of 0.80 lb/MMBtu or lower. Victoria R. Stamper's report calculated a weighted average uncontrolled SO₂ emission rate ranging from 3.99 lb/MMBtu to 4.17 lb/MMBtu over the past five years. In contrast, with existing wet scrubbers at each Plant Bowen unit, a switch to PRB could result in significant SO₂ reductions. Although EPD claimed that a switch to PRB would

⁹³ Proposed SIP at 196, Table 7-29.

⁹⁴ Proposed SIP at 240.

⁹⁵ Proposed SIP at 207.

⁹⁶ Proposed SIP at 211.

⁹⁷ Proposed SIP at 208.

result in a capacity derate of around 27% or greater,⁹⁸ Georgia Power stated that “the level of unit capacity derate does not impact the annual SO₂ emissions reduction since the analysis assumes that the 2019 baseline annual heat input is achievable at this derated unit capacity.”⁹⁹ Therefore, Stamper’s Report concludes that it “does not make sense to assume that a switch to 100% PRB coal would incur electricity purchase costs of \$51 million per year while also assuming that the Plant Bowen units would increase operating time and electricity generation with a switch to PRB coal. By assuming the plant would burn the same heat input of coal with a switch to PRB coal by operating more hours but also assuming a 27% derating and the need to purchase electricity, there is a mismatch in the cost analysis.”¹⁰⁰ It is also not clear why Georgia Power “did not take the cost of purchasing electricity due to a derate as an operational expense[s], based on the current cost of purchasing electricity.”¹⁰¹ Instead, Georgia Power apparently considered “the *future* cost of purchasing electricity as essentially a capital expenditure for which it assumed a 6.04% rate of return.”¹⁰² In any case, EPD’s stated costs of \$6,424/ton of switching from IB to PRB coal to lower sulfur should be considered as cost effective: it is lower than the cost effectiveness thresholds being used by other states.¹⁰³ Finally, Georgia Power did not quantify or assess the capital costs associated with eliminate the derate with the switch to PRB, which are likely much lower than the net present value of \$709 million of the capacity penalty cost calculated by Georgia Power.¹⁰⁴ Note that Georgia Power cites to Technical Appendix A1.3-1 of its October 2021 four-factor submittal for calculations and supporting documentation for these calculations, “but that Appendix does not appear to be a part of the publicly available four-factor analysis. Since this was the bulk of the cost of this control option, GEPC must make the underlying calculations publicly available for review.”¹⁰⁵

⁹⁸ *Id.* at 209.

⁹⁹ Victoria R. Stamper’s Report at 8.

¹⁰⁰ *Id.*

¹⁰¹ *Id.*

¹⁰² *Id.* (emphasis added).

¹⁰³ For example, Oregon, Colorado, and Nevada are using a cost effectiveness threshold of \$10,000/ton. New Mexico’s threshold is \$7,000 per ton. Arizona is using a cost threshold of \$6,500/ton. *See, e.g.*, September 9, 2020 letter from Oregon Department of Environmental Quality to Collins Forest Products, at 1-2, available at <https://www.oregon.gov/deq/aq/Documents/18-0013CollinsDEQletter.pdf>; Colorado Department of Public Health and Environment, In the Matter of Proposed Revisions to Regulation No. 23, November 17 to 19, 2021 Public Hearing, Prehearing Statement, at 7, available at <https://drive.google.com/drive/u/1/folders/1TK41unOYnMKp5uuakhZiDK0-fuziE58v>; Nevada Division of Environmental Protection, Nevada Regional Haze State Implementation Plan for the Second Planning Period at 5-6 (June 22, 2022 Draft), available at https://ndep.nv.gov/uploads/documents/1_all_sip_chpts_pn_draft.pdf; *See also* NMED and City of Albuquerque, Regional Haze Stakeholder Outreach Webinar #2, at 12, available at https://www.env.nm.gov/air-quality/wp-content/uploads/sites/2/2017/01/NMED_EHD-RH2_8_25_2020.pdf; *See also* Arizona Department of Environmental Quality, State Implementation Plan Revision: Regional Haze Program (2018-2028), June 3, 2022 Proposed, Appendix C at 45, available at https://static.azdeq.gov/aqd/haze/az_regional_haze_proposed_sip_20220603.pdf.

¹⁰⁴ October 2021 Georgia Power Plant Bowen Regional Haze Four-Factor Analysis at 15.

¹⁰⁵ Victoria R. Stamper’s Report at 8.

- *No SO2 exemption is needed for startup and shutdown:* EPD proposed to require a 0.20 lb/MMBtu, 30-day average SO2 limit for each Plant Bowen unit with exemptions for startup and shutdown.¹⁰⁶ As Stamper’s analysis shows, (1) a 0.15 lb/MMBtu SO2 limit of is justifiable, and (2) no exemption is needed for 30-day average SO2 limit for startup and shutdown. Plant Bowen’s units “should not be subject to a limit any higher than 0.17 lb/MMBtu, as each unit has consistently been able to comply with such a limit (including Unit 3 which met a 0.17 lb/MMBtu 30-day average SO2 emission rate 93% of the time over 2017-2021). Imposing a lower SO2 emissions limit than 0.20 lb/MMBtu would lock in the current SO2 emission rates and ensure the wet FGD systems are being properly operated and maintained.”¹⁰⁷
- *Reasonable progress requirements that ensure year-round operation of the SCR systems at each unit:* EPD did not evaluate any NOx controls for Plant Bowen. Although the units are equipped with low NOx burners, separated overfire air, and SCR, “the units do not consistently reduce NOx emissions to the maximum extent practicable.”¹⁰⁸

Further, switching from IB to PRB coal could result in significantly lower NOx emission rates: “a 46% decrease in NOx that could be realized at the Plant Bowen units from switching coals, assuming that the Bowen units’ SCRs achieve the same level of NOx removal efficiency as they are currently achieving. Based on Georgia Power’s assumption that 2019 emissions reflect 2028 projected emissions and assuming the switch to PRB coal would reduce NOx by 46%, 2,637 tons of NOx could be reduced per year with the coal switch. Taking into account both SO2+NOx reduced from switching to PRB coal (i.e., 7,482 tons of SO2 removed plus 2,637 tons of NOx removed), the cost effectiveness of switching to PRB coal would be \$4,749/ton of SO2+NOx removed.”¹⁰⁹ According to NPS,

It is not clear why GA EPD did not consider optimization of the existing wet scrubbers and instead evaluated replacement with dry scrubbers which typically have lower control efficiencies than wet scrubbers . . . NPS review of 2010–2021 CAMD emissions data indicates that SO2 and NOx emission rates have been generally increasing in recent years . . . We request that GA EPD establish emission limits for SO2 and NOx that reflect the capabilities of the emission controls currently installed. For example, the CAMD data suggest that the Bowen EGUs could achieve a SO2 emission rate of 0.04–0.07 lb/mmBtu and a NOx emission rate of 0.07 lb/mmBtu, annual emissions (at 0.07 lb/mmBtu) would be reduced by about 3,130 and 2,710 tons, respectively, from 2021 emissions.¹¹⁰

As discussed below, however, EPD did not respond to NPS’s request. As a result, EPD has neglected to require reasonable cost-effective controls on Plant Bowen for this second implementation period. To comply with the RHR and make reasonable progress toward

¹⁰⁶ Proposed SIP at 211.

¹⁰⁷ Victoria R. Stamper’s Report at 10.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ NPS Consultation Comments at 16-18.

improving visibility in Georgia and neighboring states' Class I areas, EPD must undertake an appropriate statutory four-factor analysis for this facility which actually assesses available reasonable control measures (e.g., optimization of equipment efficiency, equipment upgrades, etc.). Given that Plant Bowen's EGUs are already equipped with wet FGDs for SO₂ emissions control, it is likely that substantial gains can be achieved very cost-effectively, as explained in Victoria R. Stamper's expert analysis.

D. EPD Must Subject Georgia EGUs to NO_x Four-Factor Analyses.

As mentioned above, despite the many opportunities for EPD to control NO_x from its EGUs during this haze SIP implementation period, EPD failed to require that they prepare NO_x four-factor analyses. This approach ignores the substantial NO_x emissions from these sources, as well as EPA's clear direction that states are to consider both SO₂ and NO_x at a minimum.¹¹¹ For EGUs, there are many NO_x control opportunities that have historically been found to be very cost-effective because they involve relatively low to no additional capital costs.¹¹²

Reliance on VISTAS modeling to exclude Georgia EGUs from NO_x four-factor analyses is near-sighted and improper. VISTAS modeling used outdated monitoring data that does not represent the dramatic shift in nitrate contribution to visibility impairment in the Southeast over the last five to ten years. This shift was not reflected in future year predictions either. Cost-effective NO_x controls cannot be ignored or excluded from Georgia's long-term strategy for this second implementation period simply because SO₂ may be the current dominate visibility impacting pollutant at the assessed Class I Areas. In fact, EPD's Proposed SIP notes that "nitrate concentrations are higher on winter days and are more important for the coastal sites where the 20% [such as Wolf Island National Wilderness Area and Okefenokee National Wilderness Area] most impaired days occur during the winter months."¹¹³ EPD further notes that, "[u]nlike the data for the baseline period of 2000 to 2004, where nearly all days with poor visibility were heavily dominated by sulfate impairment, the 2014 to 2018 data show some 20% most impaired days having large organic matter or nitrate impacts at Georgia Class I areas; [t]he organic matter components on poor visibility days are associated with episodic events while the nitrate components are associated with anthropogenic emissions."¹¹⁴ Accordingly, potential cost-effective NO_x controls, optimizations, and/or upgrades at the Georgia EGUs must not be ignored or excluded from a reasonable progress or four-factor analysis during this implementation period.¹¹⁵

As demonstrated throughout the attached expert report, all of Georgia's EGUs noted in these comments likely have cost-effective NO_x controls available, such as upgrades and optimization measures, that require little to no capital expense. EPA's 2021 Clarification Memo reinforces the importance of considering these types of controls.¹¹⁶

¹¹¹ EPA 2021 Clarification Memo at 4-5

¹¹² See Victoria R. Stamper's Report.

¹¹³ Proposed SIP at 26.

¹¹⁴ Proposed SIP at 104.

¹¹⁵ See Victoria Stamper's Report.

¹¹⁶ 2021 Clarification Memo at 7.

A reasonable four-factor analysis will consider the full range of potentially reasonable options for reducing emissions. The August 2019 Guidance lists examples of different types of control measures that states may consider in their four-factor analyses for sources. *In addition to add-on controls and other retrofits, the Guidance also lists emission reductions through improved work practices; upgrades or replacements for existing, less effective controls; and year-round operation of existing controls.*¹¹⁷

Given that some control systems are already installed at the afore-mentioned EGUs, it is likely that substantial emissions reduction and visibility gains can be achieved very cost-effectively.

Finally, all NO_x four-factor analyses must be fully documented and independently reviewed by EPD, with EPD filing in gaps where necessary to make reasonable progress. NO_x must be sufficiently included in Georgia's overall visibility strategy for this implementation period, and these four-factor analyses are essential to ensuring it is.

V. EPD'S PROPOSED ANALYSES FOR THE NON-EGUS ARE INCONSISTENT WITH THE CLEAN AIR ACT AND REGIONAL HAZE RULE REQUIREMENTS.

The below table identifies all the non-EGU sources identified by NPCA and the Federal Land Managers that warrant a four-factor-analysis and emission limitations in the SIP.¹¹⁸

¹¹⁷ *Id.* (emphasis added).

¹¹⁸ NPS identified International Paper Company (Rome Linerboard Mill) Temple Inland; USDA Forest Services identified Temple Inland and GA Power Company - Plant Wansley; NPCA identified Temple Inland, Plant Wansley, and all additional sources.

Table 3. Non-EGU Sources Identified by NPCA and the Federal Land Managers that Warrant Four-Factor Analysis and Emission Limitations in the SIP.¹¹⁹

Source Name	County	Description	Cumulative Q/d
International Paper Company (Rome Linerboard Mill) - TEMPLE INLAND	Floyd	Pulp Mills	185.1
Georgia-Pacific Cedar Springs LLC	Early	Paperboard Mills	169.8
Georgia-Pacific Consumer Products LP (Savannah River Mill)	Effingham	Paper (except Newsprint) Mills	101.3
Rayonier Performance Fibers, LLC	Wayne	Pulp Mills	73.3
International Paper - Augusta Mill	Richmond	Paperboard Mills	70.6
PCA Valdosta Mill	Lowndes	Paperboard Mills	70.2
C-E Minerals Plants 1,2 and 6	Sumter	Clay Building Material and Refractories Manuf.	48.1
Graphic Packaging Macon Mill	Bibb	Paperboard Mills	46.3
Weyerhaeuser NR Port Wentworth	Chatham	Pulp Mills	34.3
Interstate Paper LLC	Liberty	Paperboard Mills	31.2
Weyerhaeuser NR Company - Flint River Operations	Macon	Pulp Mills	30.0
Transcontinental Gas Pipe Line Company, LLC - Compressor Sta	Henry	Pipeline Transportation of Natural Gas	28.0
CEMEX Southeast, LLC	Houston	Cement Manufacturing	23.6
Pinova, Inc.	Glynn	All Other Basic Organic Chemical Manufacturing	23.4
Thermal Ceramics	Richmond	Clay Building Material and Refractories Manuf.	21.8

A. Review of the Four-Factor Analyses Conducted for Non-EGU Sources

1. Brunswick Cellulose LLC

Brunswick Cellulose LLC is a pulp mill facility located in Glynn and was one of the three sources selected by Georgia to evaluate for reasonable progress through a four-factor analysis. It is a significant source of NO_x (1,444.6 tons/year) and SO₂ emissions (281.4 tons/year).¹²⁰ Brunswick Cellulose LLC has a cumulative Q/d value of 146.6 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 20 Class I areas, including the Wolf Island Wilderness Area, located approximately 25 km from the source.

¹¹⁹ The information in this Table is from the NPCA interactive map that provides users access to point and non-point source emissions data based on NPCA's assessment of publicly available information curated to identify sources and industrial sectors of concern to visibility in Class I area national parks and wilderness areas. The sources identified likely merit review by states to determine whether and what emission reduction options are feasible to achieve reasonable progress towards the restoration of natural visibility at Class I areas, and otherwise benefit progress toward clean air in all of our communities. The map lets one visualize the locations and details of emission sources, the level of emissions of different pollutants, and the Class I areas potentially affected by each source. The interactive map also provides information on emissions from oil and gas infrastructure such as wells, drilling rigs, compressor stations, pipelines, and refineries at the county level. Additional layers are available to visualize the 8-hour Ozone (2015) nonattainment areas as well as vulnerable populations by county density, including people of color and people living below the poverty line.

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹²⁰ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

Brunswick Cellulose is ranked fourth among the Georgia facilities for haze contributions in VISTAS Class I areas based on the AoI source screening results.

According to the Proposed SIP, the four-factor analysis results and “the fact that the state of Georgia is below the glidepath for the 2021-2028 period, no add-on SO₂ controls are deemed feasible or cost-effective and would not be reasonable for purposes of making further progress in reducing regional haze. The discontinuing of No. 6 fuel oil usage and replacement with natural gas in No. 4 Power Boiler is expected to reduce SO₂ emissions by approximately 49 tpy with a negative cost-effectiveness, meaning that Brunswick Cellulose would save money by switching from No. 6 fuel oil to natural gas, even at the higher natural gas price associated with a curtailment.”¹²¹

According to NPS, the fuel switch at this facility “will not address NO_x emissions,” and instead “recommends that Georgia conduct a four-factor analysis for NO_x emissions for significant NO_x-emitting units at the Brunswick facility . . . [T]he NPS does not support GA EPD’s rationale documenting the final RP determination for Brunswick Cellulose, which states that ‘Georgia is below the glidepath for the 2021-2028 period’ and therefore, ‘no add-on SO₂ controls are deemed feasible.’ . . . The NPS recommends revising this language in the draft SIP and identifying a cost threshold to clearly justify control determinations.”¹²²

2. International Paper Co. - Savannah

International Paper Co. - Savannah is a paperboard mill facility located in Chatham and was one of the three sources selected by Georgia to evaluate for reasonable progress through a four-factor analysis. It is a significant source of NO_x (1,309.3 tons/year) and SO₂ emissions (5,185.8 tons/year).¹²³ International Paper Co. - Savannah has a cumulative Q/d value of 389.2 based on 2017 emissions. According to NPCA’s analysis, emissions from this source potentially impact 20 Class I areas, including the Wolf Island Wilderness Area, located approximately 60 miles from the source. International Paper Co. - Savannah is ranked second among the Georgia facilities for haze contributions in VISTAS Class I areas based on the AoI source screening results.

According to the Proposed SIP, the four-factor analysis results and “the fact that the state of Georgia is well below the glidepath for the 2018-2028 period indicates that requiring additional SO₂ emission control devices for the sources at IP Savannah would not be reasonable for purposes of making further progress in reducing regional haze.”¹²⁴ However, we agree with the fact that NPS “does not support GA EPD’s rationale documenting the final RP determination for IP Savannah, which states that ‘Georgia is below the glidepath for the 2021-2028 period’ and therefore, ‘additional SO₂ emission control devices for the sources at IP Savannah would not be reasonable.’”¹²⁵ Rather, NPS reiterated that the URP is not a ‘safe harbor’ to reject otherwise

¹²¹ Proposed SIP at 218.

¹²² NPS Consultation Comments at 26.

¹²³ Based on NPCA’s analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹²⁴ Proposed SIP at 205.

¹²⁵ *Id.*

cost-effective controls and recommended “revising this language in the draft SIP and identifying a cost threshold to clearly justify control determinations.”¹²⁶

According to International Paper’s 2022 four factor analysis, one of its four emission units, the No. 13 Power Boiler (“PB13”) ceased burning coal in the 2015-2017 timeframe. Despite this fact, EPD’s SIP proposes to require PB13 to remove coal as a permitted fuel as a reasonable progress measure because it would reduce SO₂ emissions by 2,662 tons per year at no cost. Such reduction is misleading because International Paper has already ceased burning coal in PB13.¹²⁷ Additionally, EPD’s indication that there are no costs associated with the cessation of burning coal ignores that International Paper installed “load bearing natural gas burners and possibly had associated costs, because the boiler did not previously burn natural gas.”¹²⁸

Regarding International Paper – Savannah’s SO₂ control analysis for PB13, Victoria R. Stamper’s attached report includes the following conclusions related to the company’s inadequate, undocumented and unjustified cost analysis that would inflate the costs of controls:

- *Unjustified, speculative, and vague 1.5 retrofit factor for CDS and DSI:* International Paper assumed a 1.5 retrofit factor for CDS and DSI without justification, stating merely that “an engineering study has not been performed, space constraints exist, and production could be lost due to an extended Mill outage or unexpected delays.”¹²⁹ However, many CDS systems have a modular design which enables faster construction and minimizes plant downtime.¹³⁰ As explained in Victoria Stamper’s attached report, “[a] 1.5 retrofit factor has not been justified for installation of a circulating dry scrubber at PB13, and such a high retrofit factor would not be justified for installation of DSI;” further, a high retrofit factor for CDS systems is also unjustified “because CDS systems are known for their compact footprint.”¹³¹
- *Overestimated onsite landfill expansion:* The company included costs for an onsite landfill expansion for CDS and DSI “because the mill is currently restricted on the amount of lime product that can be sent to the offsite landfill being used.”¹³² The company used costs based on a 2007 study to expand the plant’s onsite landfill and scaled from 2007 to 2021 dollars. However, EPA’s Control Cost Manual advises against escalating costs more than five years.¹³³ Rather, EPA “recommends that current cost estimates be obtained rather than escalate costs over such a long timeframe if possible. Further, International Paper did not

¹²⁶ *Id.*

¹²⁷ Victoria R. Stamper’s Report at 12-13.

¹²⁸ *Id.* at 14.

¹²⁹ International Paper, Regional Haze Rule Four-Factor Analysis for the International Paper Savannah Mill, November 2020, Revised June 2022, at 2-9.

¹³⁰ See, e.g., Buecker, Brad, Circulating Dry Scrubbers: A New Wave in FGD?, Power Engineering, available at <https://www.power-eng.com/emissions/air-pollution-control-equipment-services/circulating-dry-scrubbers-a-new-wave-in-fgd/#gref>.

¹³¹ Victoria R. Stamper’s Report at 14.

¹³² International Paper, Regional Haze Rule Four-Factor Analysis for the International Paper Savannah Mill, November 2020, Revised June 2022, at 2-10.

¹³³ EPA Control Cost Manual, Section 1, Chapter 2 Cost Estimation: Concepts and Methodology, November 2017.

consider the possibility of increasing the amount of waste that can be sent to the offsite landfill being used or if another landfill could be used for scrubber or DSI waste, rather than expanding its onsite landfill.”¹³⁴

- *International Paper underestimated CDS SO2 removal efficiency and overstated DSI SO2 removal efficiency:* The company assumed only 90% control of SO2, which is a very low SO2 removal efficiency to assume with a CDS. Regarding DSI, the company “assumed SO2 control of 65%, despite acknowledging that the documentation for the EPA’s DSI retrofit costs state that 50% control of SO2 is the target SO2 removal efficiency at a boiler with an electrostatic precipitator (ESP) like PB13 is equipped with.”¹³⁵ EPD must either require the company to revise its DSI cost analysis to reflect 50% control or to provide support for its 65% SO2 DSI control assumption.¹³⁶
- *International Paper considered owners’ costs and Allowance for Funds Used During Construction (AFUDC) in its cost effectiveness analyses of DSI and CDS:* EPA has stated that owner’s costs for activities related to engineering, management, and procurement are not consistent with the overnight cost method.¹³⁷
- *Revised cost analyses are much lower and show that CDS would be very cost effective:* Victoria’s R. Stamper report shows that, revising several of the above deficiencies in International Paper’s cost estimates, “CDS would be very cost effective at \$3,300/ton and would result in significant reductions of approximately 3,900 tons per year of SO2 from PB13 . . . [N]either the energy or non-air environmental impacts nor the time to construct the controls would present a valid reason to exclude CDS from consideration as a reasonable progress measure. The life of a CDS is at least 20 years, and International Paper has also stated that the life of Power Boiler 13 is at least 20 years. Thus, the remaining useful life of the Power Boiler is also not a reason to dismiss the very cost effective control of CDS.”¹³⁸

Finally, EPD did not evaluate any NOx controls for PB13. EPD must evaluate NOx controls for PB13 to achieve reasonable progress.¹³⁹ NPS also stated that “Georgia did not address the 1,300 tons/year of NOx emissions (2017 NEI) for this source. The NPS recommends updating the four-factor analyses to consider NOx emissions.”¹⁴⁰

¹³⁴ Victoria R. Stamper’s Report at 15.

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ See EPA Control Cost Manual, Section 1, Chapter 2 Cost Estimation: Concepts and Methodology, November 2017 at 11 and Section 5, Chapter 1 Wet and Dry Scrubbers for Acid Gas Control, April 2021, at 1-30, available at https://www.epa.gov/sites/default/files/2017-12/documents/scrcostmanualchapter7thedition_2016revisions2017.pdf.

¹³⁸ Victoria R. Stamper’s Report at 17-18.

¹³⁹ Victoria R. Stamper’s Report at 14.

¹⁴⁰ NPS Consultation Comments at 29.

B. EPD's High Source Selection Threshold and Erroneous Methodology Wrongly Eliminated Fifteen Other Sources from its Reasonable Progress and Four-Factor Analyses.

Due to EPD's unreasonably high source selection threshold and erroneous methodology, the agency eliminated the following fifteen sources from the four-factor analysis requirement. We ask EPD to conduct a four-factor analysis for each of these facilities and propose a reasonable progress determination – including enforceable emission limitations in the SIP – that will reduce visibility impairing emissions from this set of sources.

1. International Paper Company (Rome Linerboard Mill) - Temple Inland

International Paper Company (Rome Linerboard Mill) - Temple Inland is a pulp mill located in Floyd. As shown in Table 1 above, Temple Inland has a cumulative Q/d value of 185.1 based on 2017 emissions¹⁴¹. According to NPCA's analysis, emissions from this source potentially impact 16 Class I areas, including Cohutta Wilderness Area, located approximately 92.3 km from the source. Although Temple Inland was selected for PSAT tagging, Georgia screened it out based on the PSAT threshold. Temple Inland is a significant source of NO_x (1,665 tons/year) and SO₂ emissions (1,429 tons/year).¹⁴² The National Park Service also identified International Paper Co Rome Linerboard- Temple Inland as a facility for which EPD should have conducted a four-factor analysis. According to NPS's recommended screening threshold to capture 80% of the total Class I area AOI impact, this source:

- Is on the 80% of total AOI impact for 5 VISTAS Class I areas; including Great Smoky Mountains NP.
- Is ranked number 40 out of 92 sources on the Great Smoky Mountains NP's 80% of total AOI impact list.
- Is ranked number 37 out of 238 VISTAS state sources on any VISTAS region Class I area's 80% of total AOI impact list when ranking based on the cumulative AOI impact.¹⁴³

EPD does not thoroughly discuss Temple Island in its Proposed SIP, or provide a reasoned explanation for refusing to conduct a four-factor analysis. For the reasons listed above, EPD must conduct a four-factor analysis for the International Paper Company (Rome Linerboard Mill) - Temple Inland.

2. Georgia-Pacific Cedar Springs LLC

Georgia-Pacific Cedar Springs LLC is a paperboard mill located in Early. As shown in Table 3 above, Georgia-Pacific Cedar Springs LLC has a cumulative Q/d value of 169.8 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 15 Class I areas, including the Bradwell Bay Wilderness Area, located approximately 116 km from the source. Georgia-Pacific Cedar Springs LLC is a significant source of NO_x (2,604.9

¹⁴¹ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁴² Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁴³ NPS Consultation Comments at 25.

tons/year) and SO₂ emissions (512 tons/year).¹⁴⁴ EPD merely states the following about this source in its Proposed SIP:

“[A] BART-eligible source, Georgia Pacific-Cedar Springs (Power Boilers 1 and 2 and Recovery Boiler 3) took permit limits to avoid BART (77 FR 11471-11472) . . . [A]dditional restrictions were implemented for . . . Georgia Pacific-Cedar Springs through permit modifications . . . [A] BART project was completed on July 31, 2011. The facility performed an initial compliance test and passed”¹⁴⁵

As noted above, however, EPA’s 2017 revisions to the RHR make clear that BART was not a once-and-done requirement. Instead, states “will need” to reassess “BART-eligible sources that installed only moderately effective controls (or no controls at all)” for any additional technically-achievable controls in the second planning period.¹⁴⁶ Thus, EPG should conduct a four-factor analysis for Georgia-Pacific Cedar Springs LLC, and provide a reasoned, technically supported basis for concluding that there are no cost-effective control options for reducing emissions from that facility.

3. Georgia-Pacific Consumer Products LP (Savannah River Mill)

Georgia-Pacific Consumer Products LP (Savannah River Mill) is a paper mill located in Effingham. As shown in Table 3 above, Georgia-Pacific Consumer Products LP (Savannah River Mill) has a cumulative Q/d value of 101.3 based on 2017 emissions. According to NPCA’s analysis, emissions from this source potentially impact 21 Class I areas, including Wolf Island, located approximately 106 km from the source. Georgia-Pacific Consumer Products LP (Savannah River Mill) is a significant source of NO_x (300 tons/year) and SO₂ emissions (2,013 tons/year).¹⁴⁷ EPD does not discuss this source in its Proposed SIP. We urge EPD to conduct a four-factor analysis for Georgia-Pacific Consumer Products LP (Savannah River Mill).

4. Rayonier Performance Fibers, LLC

Rayonier Performance Fibers, LLC is a pulp mill located in Wayne. As shown in Table 3 above, Rayonier Performance Fibers has a cumulative Q/d value of 73.3 based on 2017 emissions. According to NPCA’s analysis, emissions from this source potentially impact 6 Class I areas, including the Wolf Island Wilderness Area, located around 58 km from this source. This facility is a significant source of NO_x (1,262 tons/year).¹⁴⁸ EPD does not discuss Rayonier Performance Fibers, and we urge EPD to conduct a four-factor analysis for the facility.

¹⁴⁴ Based on NPCA’s analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁴⁵ Proposed SIP at 258-9.

¹⁴⁶ 82 Fed. Reg. 3078, 3,083 (Jan. 10, 2017); *see also id.* at 3,096 (“states must evaluate and reassess all elements required by 40 CFR 51.308(d)”).

¹⁴⁷ Based on NPCA’s analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁴⁸ Based on NPCA’s analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

5. International Paper - Augusta Mill

International Paper - Augusta Mill is a paperboard mill located in Richmond. As shown in Table 3 above, International Paper - Augusta Mill has a cumulative Q/d value of 70.6 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 9 Class I areas, including Wolf Island, located approximately 224 km from the source. This facility is a significant source of NOx (1,4626 tons/year) and SO2 emissions (253 tons/year).¹⁴⁹ Because EPD does not discuss Augusta Mill or provide a reasoned basis for dismissing potentially cost-effective controls, we urge the agency to conduct a four-factor analysis.

6. PCA Valdosta Mill

PCA Valdosta Mill is a paperboard mill located in Lowndes. As shown in Table 3 above, PCA Valdosta Mill has a cumulative Q/d value of 70.2 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 5 Class I areas, including the Okefenokee Wilderness Area, located 73 km from this source. This facility is a significant source of NOx (1,016 tons/year) and SO2 emissions (471 tons/year).¹⁵⁰ EPD does not discuss this source in its Proposed SIP. We urge EPD to conduct a four-factor analysis for PCA Valdosta Mill.

7. C-E Minerals Plants 1, 2 and 6

C-E Minerals Plants 1, 2 and 6 are dedicated to Clay building material and refractory manufacturing. As shown in Table 3 above, C-E Minerals Plants have a cumulative Q/d value of 48.1 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 7 Class I areas, including the Okefenokee Wilderness Area, located 207 km from this source. This facility is a significant source of NOx (1,056 tons/year) and SO2 emissions (292 tons/year).¹⁵¹ Once again, EPD does not discuss this source in its Proposed SIP, or provide a rational basis for excusing the facility from any control analysis. EPD must conduct a four-factor analysis for C-E Minerals Plants 1, 2 and 6.

8. Graphic Packaging Macon Mill

Graphic Packaging Macon Mill pulp and paper plant located in Macon. As shown in Table 3 above, Graphic Packaging Macon Mill has a cumulative Q/d value of 46.3 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 8 Class I areas, including the Okefenokee Wilderness Area, located approximately 225 km from this source. This facility is a significant source of NOx (1,266 tons/year).¹⁵² Macon Mill has significant visibility impacts to Class I areas in Georgia, and therefore EPD must conduct a four-factor analysis.

¹⁴⁹ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵⁰ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵¹ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵² Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

9. Weyerhaeuser NR Port Wentworth

Weyerhaeuser NR Port Wentworth is a pulp mill located in Chatham. As shown in Table 3 above, Weyerhaeuser NR Port Wentworth has a cumulative Q/d value of 34.3 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 3 Class I areas, including the Wolf Island Wilderness Area, located 87 km from this source. This facility is a significant source of NOx (756 tons/year) and SO2 (524 tons/year).¹⁵³ Despite its emissions and close proximity to affected Class I areas, EPD does not discuss Wentworth. We urge EPD to revisit the proposed SIP and conduct a four-factor analysis for this source.

10. Interstate Paper LLC

Interstate Paper LLC is a paperboard mill located in Liberty. As shown in Table 3 above, Interstate Paper LLC has a cumulative Q/d value of 31.2 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 2 Class I areas, including the Wolf Island Wilderness Area, located approximately 40 km from this source. This facility is a significant source of NOx (616 tons/year).¹⁵⁴ EPD's Proposed SIP merely states the following about this source:

“[A] BART-eligible source[] . . . Interstate Paper (F1 Power Boiler, F3 Recovery Boiler, and F4 Lime Kiln), completed a BART analysis . . . [A]dditional restrictions were implemented for Interstate Paper . . . through permit modifications.”¹⁵⁵

Beyond that brief discussion, EPD does not further evaluate potentially cost-effective controls. As noted, however, Interstate Paper's BART previous BART analysis is not determinative. Instead, Georgia should reassess BART sources like Interstate Paper for any additional technically-achievable controls in the second planning period.¹⁵⁶

11. Weyerhaeuser NR Company - Flint River Operations

Weyerhaeuser NR Company - Flint River Operations is a pulp mill located in Macon. As shown in Table 1 above, Weyerhaeuser NR Company - Flint River Operations has a cumulative Q/d value of 30 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 5 Class I areas, including the Okefenokee Wilderness Area, located approximately 209 km from this source. Because the facility is a significant source of NOx (1,117 tons/year),¹⁵⁷ EPD should conduct a four-factor analysis for Weyerhaeuser NR Company - Flint River Operations.

¹⁵³ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵⁴ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵⁵ Proposed SIP at 258.

¹⁵⁶ 82 Fed. Reg. 3078, 3,083 (Jan. 10, 2017); *see also id.* at 3,096 (“states must evaluate and reassess all elements required by 40 CFR 51.308(d)”).

¹⁵⁷ Based on NPCA's analysis,

<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

12. Transcontinental Gas Pipe Line Company, LLC - Compressor Station

Transcontinental Gas Pipe Line Company, LLC - Compressor Station is a gas pipeline located in Henry. As shown in Table 1 above, this Compressor Station has a cumulative Q/d value of 28 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 4 Class I areas, including Cohutta Wilderness Area, located approximately 144 km from the source. Transcontinental Compressor Station is a significant source of NOx (1,297 tons/year),¹⁵⁸ and should be subject to a four-factor reasonable progress analysis.

13. CEMEX Southeast, LLC

CEMEX Southeast, LLC is a Portland Cement manufacturing facility located in Houston. As shown in Table 1 above, CEMEX Southeast has a cumulative Q/d value of 23.6 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 4 Class I areas, including Okefenokee Wilderness Area, located approximately 195 km from this source. CEMEX Southeast is a significant source of NOx (968 tons/year) and SO2 (126.9 tons/year).¹⁵⁹ EPD does not discuss this source in its Proposed SIP. We urge EPD to conduct a four-factor analysis for CEMEX Southeast, LLC.

14. Pinova, Inc.

Pinova, Inc. is a basic organic chemical manufacturer located in Glynn. As shown in Table 1 above, Pinova, Inc. has a cumulative Q/d value of 23.4 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 2 Class I areas, including the Wolf Island Wilderness Area, located around 22 km from this source. This facility is a significant source of NOx (219 tons/year) and SO2 emissions (71.4 tons/year).¹⁶⁰ EPD does not discuss this source in its Proposed SIP. We urge EPD to conduct a four-factor analysis for Pinova, Inc.

15. Thermal Ceramics

Thermal Ceramics is a facility dedicated to clay building material and refractories manufacturing located in Richmond. As shown in Table 1 above, Thermal Ceramics has a cumulative Q/d value of 21.8 based on 2017 emissions. According to NPCA's analysis, emissions from this source potentially impact 4 Class I areas, including Shining Rock Wilderness, located approximately 224 km from the source. This facility is a significant source of SO2 emissions (1,150.2 tons/year).¹⁶¹ Because EPD fails to discuss the potential for cost-effective controls at Thermal Ceramics, we urge EPD to conduct a four-factor analysis.

¹⁵⁸ Based on NPCA's analysis,
<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁵⁹ Based on NPCA's analysis,
<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁶⁰ Based on NPCA's analysis,
<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

¹⁶¹ Based on NPCA's analysis,
<https://npca.maps.arcgis.com/apps/MapSeries/index.html?appid=73a82ae150df4d5a8160a2275591e45d>

VI. EPD'S CONSULTATIONS WERE FLAWED AND INCOMPLETE

EPA's regulations require that each applicable implementation plan for a State in which any mandatory Class I Federal area is located, contains such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal.¹⁶² The CAA further requires states to determine the measures necessary to make reasonable progress towards preventing future, and remedying existing, anthropogenic visibility impairment in all Class I areas.¹⁶³ Thus, "Congress was clear that both downwind states (*i.e.*, "a State in which any [mandatory Class I Federal] area . . . is located) and upwind states (*i.e.*, "a State the emissions from which may reasonably be anticipated to cause or contribute to any impairment of visibility in any such area") must revise their SIPs to include measures that will make reasonable progress at all affected Class I areas."¹⁶⁴

"This consultation obligation is a key element of the regional haze program. Congress, the states, the courts and the EPA have long recognized that regional haze is a regional problem that requires regional solutions."¹⁶⁵ Congress intended this provision of the CAA to "equalize the positions of the States with respect to interstate pollution,"¹⁶⁶ and EPA's interpretation of this requirement accomplishes this goal by ensuring that downwind states can seek recourse from EPA if an upwind state is not doing enough to address visibility transport.¹⁶⁷

In developing a long-term strategy for regional haze, EPA's regulation 40 C.F.R. § 51.308(f)(2) requires that a state take three distinct steps: consultation; demonstration; and consideration. Specifically, the regulation requires:

(ii) The State must consult with those States that have emissions that are reasonably anticipated to contribute to visibility impairment in the mandatory Class I Federal area to develop coordinated emission management strategies containing the emission reductions necessary to make reasonable progress.

(A) The State must demonstrate that it has included in its implementation plan all measures agreed to during state-to-state consultations or a regional planning process, or measures that will provide equivalent visibility improvement.

(B) The State must consider the emission reduction measures identified by other States for their sources as being necessary to make reasonable progress in the mandatory Class I Federal area.¹⁶⁸

¹⁶² 42 U.S.C. § 7491(b)(2).

¹⁶³ *Id.* § 7491(a)(1).

¹⁶⁴ 82 Fed. Reg. at 3,094.

¹⁶⁵ 82 Fed. Reg. at 3,085 (*Vermont v. Thomas*, 850 F.2d 99, 101 (2d Cir. 1988)).

¹⁶⁶ S. Rep. No. 95-127, at 41 (1977).

¹⁶⁷ *Id.*

¹⁶⁸ 40 C.F.R. § 51.308(f)(2) (emphasis added); *see also*, 64 Fed. Reg. 35,765, 35,735 (July 1, 1999) (In conducting the four-factor analysis, EPA explained that "...the State must consult with other States which are anticipated to contribute to visibility impairment in the Class I area under consideration ... any such State must consult with other States before submitting its long-term strategy to EPA.").

“Where the State has emissions that are reasonably anticipated to contribute to visibility impairment in any mandatory Class I Federal area located in another State or States, the State must consult with the other State(s) in order to develop coordinated emission management strategies.”¹⁶⁹ Moreover, plan revisions:

[M]ust provide procedures for continuing consultation between the State ... on the implementation of the visibility protection program required by this subpart, including development and review of implementation plan revisions and progress reports, and on the implementation of other programs having the potential to contribute to impairment of visibility in mandatory Class I Federal areas.¹⁷⁰

In its 2017 amendments to the RHR, EPA explained that “states *must* exchange their four-factor analyses and the associated technical information that was developed in the course of devising their long-term strategies. This information includes modeling, monitoring and emissions data and cost and feasibility studies.”¹⁷¹ In the event of a recalcitrant state, “[t]o the extent that one state does not provide another other state with these analyses and information, or to the extent that the analyses or information are materially deficient, the latter state should document this fact so that the EPA can assess whether the former state has failed to meaningfully comply with the consultation requirements.”¹⁷²

Finally, “[i]f a State contains sources which are reasonably anticipated to contribute to visibility impairment in a mandatory Class I Federal area in another State” that has established reasonable progress goals that are slower than the Uniform Rate of Progress, “the State must demonstrate that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the State.”¹⁷³ To that end, the “State must provide a robust demonstration, including documenting the criteria used to determine which sources or groups or sources were evaluated and how the four factors required by paragraph (f)(2)(i) were taken into consideration in selecting the measures for inclusion in its long-term strategy.”¹⁷⁴ In any event, “[a]ll substantive interstate consultations must be documented.”¹⁷⁵

A. EPD’s Interstate Consultations Were Flawed and Incomplete.

To evaluate potential reasonable progress emission reductions from out-of-state sources, EPD identified for further analysis only those out-of-state sources that contributed $\geq 1.00\%$ visibility impairment for sulfate at Georgia Class I areas.¹⁷⁶ Setting aside the flaws with that arbitrary threshold and the agency’s failure to consider nitrate impacts, EPD’s consultations with other states is flawed and incomplete. In any case, using that 1.0% threshold, EPD requested reasonable progress analyses for only fourteen sources in other states: five facilities in Florida,

¹⁶⁹ 40 C.F.R. § 51.308(f)(3)(i).

¹⁷⁰ 40 C.F.R. § 51.308(f)(4).

¹⁷¹ 82 Fed. Reg. at 3,088 (emphasis added).

¹⁷² *Id.*

¹⁷³ 40 C.F.R. § 51.308(f)(3)(ii)(B).

¹⁷⁴ *Id.*

¹⁷⁵ 40 C.F.R. § 51.308(f)(2)(ii)(C).

¹⁷⁶ Proposed SIP at 237.

one facility in Kentucky, two facilities in South Carolina, one facility in Tennessee, two facilities in Indiana, two facilities in Ohio, and one facility in Pennsylvania.¹⁷⁷ Although the Proposed SIP references “Tennessee[‘s] conclusions in Appendix G-2f”, where “TDEC-APC... concluded that reasonable progress for Eastman Chemical Company the permanent shutdown of B-83 Boilers 18, 19, and 20 and the installation of permanent dry sorbent injection (without upgrading the existing ESPs) on Boilers 23 and 24,” this attachment was not provided to the public.

There is nothing in Georgia’s SIP that demonstrates EPD conducted an independent evaluation of what it received from Florida, South Carolina, Kentucky, Tennessee, Ohio, Indiana and Pennsylvania. Instead, EPD sums up its state-to-state consultations by saying it “agrees with all of the decisions made by other state agencies concerning the emission sources...”¹⁷⁸ As the agency responsible for developing and implementing the CAA’s regional haze requirements in the first instance in Georgia, EPD has an obligation to independently review all of information in the record, including data that undermines its conclusions, and provide a reasoned explanation for its ultimate determinations. As explained below, lacking the independent engineering review, Georgia’s Proposed SIP fails to critically evaluate whether additional controls from out-of-state sources are warranted to ensure reasonable progress. The Proposed SIP is therefore incomplete and must be supplemented with the missing analysis before submittal to EPA.

1. Georgia Failed to Respond to Other States’ Request for Four-Factor Analyses.

Based on the record, it appears that Georgia failed to respond to several other states’ requests, including Florida, North Carolina, South Carolina, and Tennessee, for reasonable progress analyses for Plant Bowen or International Paper, even though those letters were sent more than a year ago.¹⁷⁹ Moreover, there is nothing in the record indicating that Georgia followed up with those states to resolve whether additional reductions are necessary at either facility to ensure reasonable progress. Consequently, the Proposed SIP is incomplete on its face. EPD may not simply give Plant Bowen or International Paper free passes to ignore cost-effective reasonable progress controls that would improve visibility in out-of-state Class I areas. Rather, Georgia must ensure a four-factor analysis is conducted for Plant Bowen and International Paper, or provide a robust technical analysis of its own, demonstrating that no additional controls at either facility are reasonable.¹⁸⁰ At a minimum, Georgia has an obligation to document and describe the actions taken to follow up with Florida, North Carolina, South Carolina, and Tennessee, and resolve any disagreement regarding the need for a four-factor analysis.¹⁸¹

2. Georgia Should Insist that Pennsylvania Optimize or Upgrade Controls at Keystone Generating Station.

For Keystone Station in Pennsylvania, Georgia included in its Proposed SIP a letter from Pennsylvania concluding that the Keystone units are currently controlled by BACT-level controls for SO₂ and NO_x, and that Keystone did not identify any technically feasible controls

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* at 235.

¹⁷⁹ Proposed SIP, Appx. F-1e, f, g, and h.

¹⁸⁰ 40 C.F.R. § 51.308(d)(3)(ii)(B).

¹⁸¹ *Id.* §§ 51.308(d)(1)(iv).

for SO₂, because the units are already controlled by wet FGD (at least 90% effectiveness) and dry sorbent injection. For NO_x control, Keystone evaluated potential tuning and upgrading of the low NO_x burners installed the units, but did not identify any reasonable control measures.¹⁸²

But Keystone Station is not exempt from a four-factor analysis simply because it has FGD and SCR systems in place to meet the MATS. For one thing, the scrubbers do not have at least a 95% control efficiency.¹⁸³ Moreover, Keystone is equipped with underperforming wet scrubber, and a modern wet scrubber system should be able to continuously operate at 98% efficiency. Of the scrubber upgrades Keystone does consider in its four-factor analysis, simply running one more level of recycle pumps would very cost-effective at \$413/ton, and must be required.

While Keystone Units 1 and 2 are equipped with SCR systems, average NO_x emissions in 2019 from Units 1 and 2 were 0.104 and 0.103 lb/mmBtu, respectively;¹⁸⁴ as previously noted, modern SCR systems should be able to consistently operate at a monthly average NO_x level of 0.05 lbs/MMBtu or lower.¹⁸⁵ Georgia must request that Pennsylvania require Keystone to evaluate additional cost-effective control measures, such as upgrades and/or system optimizations, emission limitations, available during this implementation period. In addition, Georgia must ensure that any cost effectiveness claims are supported and documented in order to determine their accuracy.

3. Georgia Should Insist that Ohio Require the Gavin Power Plant to Optimize or Upgrade Controls.

With respect to potential emission reductions from General James M. Gavin Power Plant in Ohio, the Proposed SIP includes a letter requesting that Ohio evaluate and require reasonable controls. In response, Ohio provided a cursory evaluation of emissions from the Gavin facility, concluding that Gavin's FGD and SCR systems are least 90% effective, and therefore the facility is considered to be "effectively controlled."¹⁸⁶

As discussed, the "effectively controlled" language found in the 2019 EPA Guidance has been misinterpreted by Ohio EPA and does not shield the Gavin Plant from a four-factor analysis for SO₂ or NO_x, as likely cost-effective controls are readily identifiable. Specifically, Ohio EPA should not have assumed that a general example of a source that could be considered "effectively

¹⁸² Proposed SIP, Appx. F-2e.

¹⁸³ Proposed SIP, Appendix F-2e, Four Factor Analysis for Regional Haze, Second Decadal Review, Keystone Generating Station Units 1 and 2, AECOM, Revised (Rev.02) (Feb. 11, 2021), p. 6.

¹⁸⁴ Proposed SIP Appendix F-2e, Four Factor Analysis for Regional Haze, Second Decadal Review, Keystone Generating Station Units 1 and 2, AECOM, Revised (Rev.02) (Feb. 11, 2021), p. 6.

¹⁸⁵ Keystone asserts that "[o]ptimization of the existing SCR systems will be addressed as part of the forthcoming case-by-case NO_x RACT analysis." Proposed SIP, App'x F-2e, Four Factor Analysis for Regional Haze, Second Decadal Review, Keystone Generating Station Units 1 and 2, AECOM, Revised (Rev.02) (Feb. 11, 2021), at 11. An upcoming RACT analysis is not an off-ramp to the Act's regional haze requirements that apply now. As discussed in elsewhere in these comments, other CAA requirements may be relied on in addition to, not in lieu of, the RHR's reasonable progress requirements. Moreover, a RACT analysis would apply different factors and result in a different and likely less stringent outcome. Therefore, Georgia must request that Pennsylvania require the Four-Factor Analysis for Units 1 and 2, including optimization options, and include enforceable emission limitations in its SIP.

¹⁸⁶ Proposed SIP, App'x. F-2d.

controlled” would excluded these plants from four-factor analyses for SO₂ and/or NO_x without source-specific considerations. Not only is this “effectively controlled” example not part of the RH Rule or its implementing regulations, but, from a practical standpoint, broad, generalized examples of controls that EPA *may* consider most effective cannot serve as a blanket exemption from a source-specific EGU four-factor analysis. Ohio EPA should have, instead, examined actual and projected plant emissions and performance data for Gavin to determine whether it would be likely that a four-factor analysis would identify other cost-effective control measures for SO₂ and NO_x.¹⁸⁷ Had they done so, it is almost certain that they would have been able to identify reasonable control measures (including improved work practice standard or operational limits) to make reasonable progress during this implementation period.¹⁸⁸ Of note, it does appear that Ohio EPA has requested a four-factor analysis from the Gavin Plant. Given all of this, Georgia must ensure that Ohio conduct four-factor analyses for SO₂ and NO_x and consider all technically and economically feasible control options in order “to secure meaningful reductions in visibility impairing pollutants that build on the significant progress states have already achieved.”¹⁸⁹

4. Georgia’s Other Consultations Are Unlawful.

As part of the interstate consultation process, the Proposed SIP indicates that Georgia contacted Florida to request four factor analyses for Seminole Electric Cooperative and Jacksonville Electrical Authority, among others; contacted Kentucky to request a four-factor analysis for Shawnee Fossil Plant; South Carolina to conduct an analysis for Santee Cooper Cross and Alumax; and Tennessee to conduct an analysis for Eastman Chemical Company. It does not appear, however, that any of those states responded to Georgia’s requests. Moreover, there is nothing in the record indicating that Georgia followed up with those states to resolve whether additional reductions are necessary at any of those facilities to ensure reasonable progress for Georgia’s Class I areas. Consequently, the Proposed SIP is incomplete on its face. Georgia must ensure that Florida, North Carolina, South Carolina, and Tennessee conduct the requested four-factor analyses, or provide a robust technical analysis of its own, demonstrating that no additional controls at any of those out-of-state facilities are reasonable.¹⁹⁰ At a minimum, Georgia has an obligation to document describe the actions taken to follow up with Florida, North Carolina, South Carolina, and Tennessee, and resolve any disagreement regarding the need for a four-factor analysis.¹⁹¹

B. EPD’s Consultation with the Federal Land Managers is Flawed and Incomplete.

The CAA and the RHR require states to consult with the Federal Land Managers (“FLM”) that oversee the Class I Areas impacted by a state’s sources.¹⁹² Specifically, the state “must provide the Federal Land Manager with an opportunity for consultation, in person at a point early enough in the State’s policy analyses of its long-term strategy emission reduction

¹⁸⁷ 2021 EPA Memo at 5

¹⁸⁸ An analysis of Gavin’s scrubber and SCR performance was provided in separate comments to Ohio, *see* Joe Kordzi, “A Review of the Ohio Regional Haze State Implementation Plan” at 14 (June 2021) (Exhibit 4).

¹⁸⁹ 2021 Clarification Memo at 2.

¹⁹⁰ 40 C.F.R. § 51.308(d)(3)(ii)(B).

¹⁹¹ *Id.* §§ 51.308(d)(1)(iv).

¹⁹² 42 U.S.C. § 7491(d); 40 C.F.R. § 51.308(i)(2).

obligation so that information and recommendations provided by the Federal Land Manager can *meaningfully inform* the State’s decisions on the long-term strategy.”¹⁹³ The “consultation must be early enough for state officials to meaningfully consider the views expressed by the FLMs.”¹⁹⁴ The rule further requires states to provide for “continuing consultation” between the state and the Federal Land Manager, and to meaningfully address the FLM’s comments in the proposed SIP.¹⁹⁵ Thus, the FLM consultation process is not a mere box checking exercise; instead, it is a mandatory, iterative process, requiring the state to meaningfully consider and incorporate into the SIP the concerns of the agencies responsible for managing the Class I resources impacted by pollution from the state.

Because the FLMs’ role is to manage their resources – including air quality – EPD must meaningfully consider and adapt its SIP measures to reflect comments and suggestions from the FLMs. Indeed, the Department of Interior’s FLM agencies have engineers and air quality specialists uniquely qualified with years of experience reviewing and commenting on regional haze SIPs.

The FLM-State consultation is akin to the public’s opportunity to comment on the State’s proposed SIP. In both contexts “there must be an *exchange* of views, information, and criticism between interested persons and the agency.”¹⁹⁶ Moreover, the dialogue between the FLMs/public and Georgia is a “two-way street.”¹⁹⁷ Thus, the consultation comments provided by the FLMs are meaningless unless Georgia responds to the significant points raised by the FLM.

Yet, EPD has neither meaningfully considered, responded, nor adapted its Proposed SIP to respond to the FLMs’ consultation comments, and the plan, therefore, fails to satisfy the text or intent of the RHR’s consultation requirements. Indeed, EPD simply did not respond to any of them.

In response to detailed comments from FLMs on the flaws with EPD’s source selection, EPD failed to respond to any of the points raised by the FLMs, instead EPD merely indicated that “[a]s required by 40 CFR §51.308(i), the regional haze SIP must include procedures for continuing consultation between the States and Federal Land Managers (FLMs) pertaining to visibility protection.”¹⁹⁸ EPD’s response was meaningless because it did not respond to the specific points regarding source selection raised by the FLMs. In fact, although Georgia should have consulted with the Fish and Wildlife Service (FWS) under the U.S. Department of Interior, and although the Proposed SIP states that “[t]he FLMs were involved in the preparation of this regional haze SIP,”¹⁹⁹ and that “[d]ocumentation of the formal comments made by the FLMs and GA EPD’s response appears in Appendix H – Public Hearing Comment Summary and Agency

¹⁹³ 40 C.F.R. § 51.308(i)(2) (emphasis added).

¹⁹⁴ EPA, Responses to Comments at 445, Protection of Visibility: Amendments to Requirements for State Plans; Proposed Rule (81 Fed. Reg. 26,942 (May 4, 2016), Docket No. EPA-HQ-OAR-2015-0531 (Dec. 2016) (“Regional Haze Rule Revision Response to Comment”).

¹⁹⁵ 40 C.F.R. § 51.308(i)(2); Regional Haze Rule Revision Response to Comment at 445.

¹⁹⁶ *Home Box Office, Inc. v. Federal Communications Commission*, 567 F.2d 9, 35 (D.C. Cir. 1977).

¹⁹⁷ *Id.* at 35-36.

¹⁹⁸ Proposed SIP at 243.

¹⁹⁹ Proposed SIP at 9.

Responses,”²⁰⁰ FWS’s response is not contained in Appendix H. Only USDA Forest Service and NPS responses are attached.

Examples of the lack of EPD response to FLMs’ comments are as follows.

First, the USDA Forest Service shared its “overriding concern [which] is that a sufficient number of emission sources are selected . . . The USDA Forest Service assessed facilities contributing the majority of impairment attributable to Georgia at FS Region 8 Class I wilderness areas.”²⁰¹ The USDA Forest Service illustrated its concern on the narrow focus on EPD’s source selection and explained that:

The USDA Forest Service would appreciate EPD conducting additional four-factor analyses for two facilities:

- GA Power Company - Plant Wansley; and
- TEMPLE INLAND.

If either facility has an anticipated closure date, the USDA Forest Service would ask that it be made federally enforceable through incorporation into the SIP.²⁰²

The USDA Forest Service requested additional four-factor analyses for Georgia Power Company’s Plant Wansley and Temple Inland and federally enforceable facility retirement dates, but EPD failed to respond. Similarly, NPS made the following site-specific recommendations:

- Georgia Power Co. Plants Bowen and Wansley
 - o Evaluate ways to optimize current pollution control equipment
 - o Establish SO₂ and NO_x emission limits reflective of the existing control capabilities
- Georgia Power Co. Plant Scherer
 - o Analyze options for improving SCR performance
- International Paper Co. Temple Inland
 - o Conduct four-factor analyses for SO₂ and NO_x
- Brunswick Cellulose LLC
 - o Conduct a four-factor analysis for NO_x emissions
- International Paper Co. Savannah
 - o Update the four-factor analyses to include NO_x emissions.²⁰³

Again, EPD failed to include or even respond to USDA Forest Service’s and NPS’s source selection comments.

A second example of where EPD failed to meaningfully respond to the significant issues raised by the FLMs was on Georgia’s exclusion of NO_x from the four-factor analysis. Here the FLMs provided detailed consultation comments, which included:

²⁰⁰ *Id.*

²⁰¹ USDA Forest Service Consultation Comments at 3.

²⁰² *Id.*

²⁰³ NPS Consultation Comments at 3.

- *USDA Forest Service*: “[T]he USDA Forest Service would like EPD to be aware of the increasing contribution of NO_x to visibility impairment. For the Cohutta Wilderness area from 2001- 2020, while SO₂ contributions to visibility impairment have decreased from 85% to 45%, NO_x contributions to visibility impairment have increased from 2% to 27% on the most impaired days. The USDA Forest Service recommends EPD assess NO_x controls for reasonable progress for the EPD-identified and additional recommended facilities.”²⁰⁴
- *NPS*: “[T]he nitrate contribution to visibility impairment on the 20% most impaired days has been increasing over the last decade at Great Smoky Mountains, Mammoth Cave, and Shenandoah National Parks. The NPS recommends evaluating opportunities to reduce NO_x emissions from Georgia stationary sources in this RH planning period . . . Currently, GA EPD’s approach relies on 2028 modeling projections to determine that nitrate is not a significant contributor to impairment . . . [T]he magnitude of NO_x emissions from Georgia stationary sources is significant (based on both current and 2028 inventories) and is within the state’s purview to control. Reducing NO_x emissions would have additional regional co-benefits for ozone and nitrogen deposition.”²⁰⁵

EPD’s Proposed SIP fails to include either a summary, the actual comments from NPS or the USDA Forest Service, or a response. Thus, the public lacks access to and has not been provided an opportunity to review and comment on those comments. EPD failed to engage with the FLM’s comments on the need to conduct the four-factor analyses and include emission limitations on NO_x emissions.

Third, as the NPS consultation comments explained,

The VISTAS PSAT and AOI analyses indicate that among VISTAS region states, Georgia emissions and facilities impact Great Smoky Mountains National Park. The NPS has identified five Georgia facilities as contributing to the top 80% of visibility impairment at Great Smoky Mountains National Park based on either the AOI or Q/d analysis results. Based on the cumulative AOI rankings, each of the facilities recommended for analysis are among the top ten most-impacting Georgia facilities across VISTAS Class I areas. This highlights that NPS recommendations capture the most important Georgia sources for consideration.

²⁰⁶

In making this comment, the NPS followed its approach by suggesting that Georgia conduct four-factor analyses on sources that contribute 80% of visual impact at the NPS Class I areas. NPS underscored “the inconsistency in the VISTAS source selection process and that the individual facility percent-of-impact threshold used in the AOI screening step is both arbitrarily high and likely overly aggressive in screening potentially important sources for individual Class I

²⁰⁴ USDA Forest Service Consultation Comments at 3.

²⁰⁵ NPS Consultation Comments at 5-6.

²⁰⁶ *Id.* at 3.

areas.”²⁰⁷ In fact, NPS’s primary concern was that “[b]y omitting emissions below the 1% threshold [the Proposed SIP] does not fully disclose the impact of Georgia emission sources in all Class I areas, including Great Smoky Mountains National Park, which is affected by Georgia emissions.”²⁰⁸ EPD dismissed the NPS concerns and did not respond at all.

Fourth, the NPS pointed out the following recommendation: “[w]e recommend that GA EPD establish a cost threshold to support the reasonable progress determinations and require all technically feasible, cost-effective controls identified through four-factor analyses in this planning period . . . The URP is not a “safe harbor” to reject otherwise cost-effective controls . . . The NPS recommends revising this language in the draft SIP and identifying a cost threshold to clearly justify control determinations.”²⁰⁹ NPS mentions twice in its comments that the URP is not a “safe harbor” to reject otherwise cost-effective controls, yet EPD did not respond.

Fifth, the NPS expressed that “visibility benefit and visibility projections relative to the URP alone are not an appropriate basis for rejecting otherwise cost-effective controls. EPA covered this topic in their July 8, 2021, Clarification Memo.”²¹⁰ Contrary to the requirement to respond to concerns, EPD’s Proposed SIP does not. Indeed, as discussed elsewhere in these comments, EPD used visibility improvement as a fifth factor to reject sources and controls, which it must not do. As the NPS’ consultation comments explained:

Clean air and clear views are essential to the preserving the fundamental purpose of our national parks and ensuring the enjoyment of park resources for the American public both now and in the future. There is still progress needed to achieve the regional haze goal of no human-caused visibility impairment at . . . Class I areas in the VISTAS region.²¹¹

Sixth, EPD ignored the USDA Forest Service’s concern regarding emissions from prescribed fire and use of an unrepresentative and outdated year (*i.e.*, 2011) for prescribed fire emissions.²¹² Despite “recent data on prescribed fire activity, especially within the USDA Forest Service, show that the number of acres burned in prescribed fires during 2011 were lower than all other recent years,”²¹³ and future plans for treatment by prescribed fire within the “USDA Forest Service southern region . . . [are planned at] well over 1 million acres,”²¹⁴ EPD remained silent. USDA Forest Service’s Comments conclude that “the USDA Forest Service would like assurances that Georgia EPD will continue to recognize the important ecological role of prescribed fire and in the future adjust the glidepath to account for prescribed fire emissions accordingly.”²¹⁵ However, EPD did not provide any assurances.

²⁰⁷ *Id.* at 9.

²⁰⁸ *Id.* at 9.

²⁰⁹ *Id.* at 12, 27.

²¹⁰ *Id.* at 2.

²¹¹ NPS Consultation Comments at 3.

²¹² USDA Forest Service Consultation Comments at 4.

²¹³ *Id.*

²¹⁴ *Id.*

²¹⁵ *Id.*

Seventh, NPS expressed concerns with EPD's VISTAS modeling approach in the following terms: "the VISTAS modeling used a 2011 base year which is not representative of current visibility monitoring trends for nitrate. The subset of 20% most impaired days from the base year are carried forward into the 2028 future year analysis. This assumes that the 2011 distribution of most-impaired days is reflective of current trends. Monitoring data show this is not the case and suggest the VISTAS 2028 results are biased toward summer months when sulfate concentrations are generally highest and nitrate concentrations are generally low."²¹⁶ EPD dismissed the NPS concerns and did not respond.

Eighth, NPS commented that [d]eclining to select sources because there are larger contributions from out-of-state regions unnecessarily limits achievable progress. The cumulative benefit of multiple emission reductions will be needed to continue progress toward unimpaired visibility in Class I areas."²¹⁷ EPA highlighted this in its 2021 Clarification Memo:

In applying a source selection methodology, states should focus on the in-state contribution to visibility impairment and not decline to select sources based on the fact that there are larger out-of-state contributors. What is reasonable will depend on the specific circumstances. We generally think that a threshold that captures only a small portion of a state's contribution to visibility impairment in Class I areas is more likely to be unreasonable. Similarly, a threshold that excludes a state's largest visibility impairing sources from selection is more likely to be unreasonable.²¹⁸

To comply with the letter and purpose of the regulation, EPD must meaningfully evaluate, respond to, and incorporate changes to its Proposed SIP in response to the FLMs' consultation comments and provide the public an opportunity to comment.

VII. EPD'S LONG-TERM STRATEGY IS INCONSISTENT WITH LEGAL REQUIREMENTS

A. EPD Must First Conduct the Required Four-Factor Analyses and then Develop the Reasonable Progress Goals.

As drafted, Georgia's reasonable progress goals ("RPGs") are based on modeling results, which does not meet the RHR requirement that the RPGs are to be based on enforceable SIP measures. Specifically, Georgia's draft long-term strategy sets reasonable progress goals, which it termed "rate of progress" goals, based on the VISTAS modeling results *before* and *in lieu of* conducting the required reasonable progress four-factor analyses – and it has impermissibly reversed the order of the requirements.²¹⁹ The RPGs are not to be developed *before* the four-

²¹⁶ NPS Consultation Comments at 6.

²¹⁷ *Id.* at 10.

²¹⁸ *Id.*, citing EPA's Clarification Memo.

²¹⁹ Proposed SIP at 49 ("The air quality modeling results were used to determine a relative reduction in future visibility impairment, which was used to determine future visibility conditions and reasonable progress goals."); *id.* at 198 ("To calculate the *rate of progress* represented by each goal, Georgia compared baseline visibility conditions (2000 to 2004) to natural visibility conditions in 2064 at Cohutta Wilderness Area and Okefenokee National Wilderness Area and determined the uniform rate of visibility improvement (in dv) that would need to be maintained during each implementation period in order to attain natural visibility conditions by 2064. Through the VISTAS

factor analyses but *as a result of* the four-factor analyses.²²⁰ EPD must first conduct the four-factor analyses, determine measures for reducing visibility impairing emissions based on the Act's four-factor analysis, and *then* use the results to develop revisions to the RPGs.

B. The Public was Not Provided an Opportunity to Review and Comment on the VISTAS Emission Inventories and Modeling.

While the VISTAS states may have agreed on the modeling (and presumably the emission inventory development) compiled or completed by VISTAS, the public was not provided an opportunity to review and comment on the assumptions that went into the emission inventories or the modeling. Indeed, statements in the Proposed SIP that circumvent the SIP public notice and comment requirements are of significant concern to commenters. For example, EPD explains that “[t]he [VISTAS] states collectively accept the conclusions of these [technical] analyses for use in evaluating reasonable progress.”²²¹ EPD presents its Proposed SIP and the myriad of VISTAS assumptions upon which it is based as a *fait accompli*, suggesting that the VISTAS screening methodology to select sources and VISTAS modeling it relied on to set its RPGs are *complete and done*. EPD's statements that suggest it has already determined the contents of the Final SIP it will submit to EPA are contrary to the Act's requirements for public notice and comment. Furthermore, EPD's description of the outreach it conducted to various parties does not replace the State's required public notice and comment process,²²² nor supplant EPA's ultimate legal responsibility to also provide for public notice and comment before it makes its final decision to approve or disapprove Georgia's SIP. Thus, EPD must meaningfully consider all comments and revise the Proposed SIP accordingly.

The public was not provided access to all the underlying VISTAS' technical documents. This is contrary to the regional haze regulations that require the long-term strategy to “document the technical basis, including modeling, monitoring and emissions information, on which the State is relying to determine its apportionment of emission reduction obligations necessary for achieving reasonable progress in each mandatory Class I Federal area it affects.”²²³

As part of its Proposed SIP, EPD must not only follow the requirements in the RHR, but also the requirements for preparation, adoption and submittal of SIPs.²²⁴ EPD has an obligation to make transparent and cite to (and provide weblinks to) the technical support documentation it proposes to rely on and use as part of its SIP revision (*e.g.*, such regional planning organization

modeling, Georgia estimated the expected visibility improvements by 2028 in Cohutta Wilderness Area and Okefenokee National Wilderness Area resulting from existing federal and state regulations expected to be implemented and facility closures expected to occur by 2028 in Georgia and neighboring states. The VISTAS baseline modeling demonstrated that the 2028 base case control scenario provides for an improvement in visibility below than the URP for the Cohutta Wilderness Area and Okefenokee National Wilderness Area for the 20% most impaired days and ensures no degradation in visibility for the 20% clearest days over the 2000 to 2004 baseline period. These controls and facility closures, to the extent known and quantifiable, were modeled as part of the long-term strategy. The results of this modeling are shown in Section 7.2.5.”) (emphasis added).

²²⁰ See, *e.g.*, 82 Fed. Reg. at 3090-91.

²²¹ Proposed SIP at 235.

²²² *Id.* at 240-242.

²²³ 40 C.F.R. § 51.308(d)(3)(iii).

²²⁴ 40 C.F.R. §§ 51.100, 51.102, 51.103, 51.104, 51.105 and Appendix V to Part 51.

technical analyses) and provide the public with the opportunity to comment on such analyses. Thus, EPD must cite to and provide weblinks to the VISTAS' documentation and analysis for all the emissions information, monitoring and modeling.²²⁵

C. Must Not Rely on Unquantified and Unenforceable Statements in its SIP.

Under 40 CFR 51.308(f)(2), EPD must submit a long-term strategy addressing regional haze visibility impairment for each mandatory federal Class I area within the state and for each mandatory federal Class I area located outside the state that may be affected by emissions from the state. The long-term strategy must include the “enforceable emissions limitations, compliance schedules, and other measures” that are necessary to make reasonable progress. *Id.* § 51.308(d)(3). SIP emission limitations must be legally and practically enforceable, which requires that SIPs (1) be “duly adopted, and specify clear, unambiguous, and measurable requirements”; (2) contain a “legal means for ensuring that sources [comply] with the control measure”; and (3) be “enforceable in practice.” State Implementation Plans, 57 F3d. Reg. 13,498, 13568 (Apr. 16, 1992). A “regulatory limit is not enforceable if, for example, it is impractical to determine compliance with the published limit.” *Id.*; see also *Committee for a Better Arvin v. U.S. E.P.A.*, 786 F.3d 1169, 1181 (9th Cir. 2015).

Georgia's long-term strategy relies on a laundry list of “expected” emission reductions that “are included in the 2028 future year estimates upon which visibility projections are based.”²²⁶ Relying on expected emission reductions from a hodgepodge of federal and state control measures, Georgia predicts that, by 2028, in-state SO₂ emissions will drop by 79.5%, and NO_x emissions will be reduced by 54.7% over the same period.²²⁷ EPD further predicts that, based on additional, unidentified emission reductions associated with “out of state reasonable progress evaluation reductions” and “CSAPR update rule reductions,”²²⁸ “actual 2028 emissions of SO₂ and NO_x should be lower.”²²⁹ EPD's calculation of reasonable progress goals is

²²⁵ 40 C.F.R. Part 51, Appendix V ¶ 2.2 Technical Support. “(a) Identification of all regulated pollutants affected by the plan. (b) Identification of the locations of affected sources including the EPA attainment/nonattainment designation of the locations and the status of the attainment plan for the affected areas(s). (c) Quantification of the changes in plan allowable emissions from the affected sources; estimates of changes in current actual emissions from affected sources or, where appropriate, quantification of changes in actual emissions from affected sources through calculations of the differences between certain baseline levels and allowable emissions anticipated as a result of the revision. (d) The State's demonstration that the national ambient air quality standards, prevention of significant deterioration increments, reasonable further progress demonstration, and *visibility*, as applicable, are protected if the plan is approved and implemented. (e) Modeling information required to support the proposed revision, including input data, output data, models used, justification of model selections, ambient monitoring data used, meteorological data used, justification for use of offsite data (where used), modes of models used, assumptions, and other information relevant to the determination of adequacy of the modeling analysis. (f) Evidence, where necessary, that emission limitations are based on *continuous* emission reduction technology. (g) Evidence that the plan contains emission limitations, work practice standards and recordkeeping/reporting requirements, where necessary, to ensure emission levels. (h) Compliance/enforcement strategies, including how compliance will be determined in practice. (i) Special economic and technological justifications required by any applicable EPA policies, or an explanation of why such justifications are not necessary.”

²²⁶ Proposed SIP at 105.

²²⁷ *Id.* at 121-122.

²²⁸ *Id.* at 229.

²²⁹ *Id.* at 123.

fundamentally flawed because the Proposed SIP improperly establishes RPGs based on projections that anticipated emission reductions will be sufficient to keep affected Class I areas on uniform rate of progress, rather than recognizing that RPGs are a function of the visibility benefits that will be achieved through the implementation of reasonable, cost-effective emission reductions, after consideration of the four statutory reasonable progress factors. Setting aside that fundamental defect, the Proposed SIP also fails to ensure that its so-called long-term strategy emission limitations and control measures are legally and practically enforceable, as required of any SIP under the CAA. Moreover, EPD improperly attempts to take credit for the following emission reductions without specifically quantifying those reductions or including any mechanism to ensure that they are enforceable in practice.

Table 4. Non-Quantified and Unenforceable Assertions Regarding Emission Reductions

	Description of Approvability Issue	Where the Issue Arises in the Proposed SIP
1	Power plant retirements or emission reductions must be clearly documented and federally enforceable.	It is unclear what emission reductions, if any, EPD accounts for in the Proposed SIP from EGU retirements or fuel switches. Any such operational changes the state relies on to ensure reasonable progress, must be clearly documented and made permanent and enforceable. ²³⁰
2	EPD cannot rely on consent decree requirements for emission controls and monitoring without including those terms in the SIP. Additionally, as discussed elsewhere in these comments, where coal-fired units are re-powered with natural gas, Georgia must include those planned operational changes as binding provisions of the SIP. Where the SIP includes retirements, any repowering scenarios are subject to RH requirements, including SIP public notice and comment, amongst other CAA requirements. Notably, one of the other CAA requirements such a proposed SIP amendment where the source with assumed shut downs proposed to transitions to gas	EPD mentions in its progress report a settlement agreement at the TECO Gannon Station Power Plant (now TECO Bayside Power Station) to convert it from burning coal to natural gas, and also relies on installed permanent emissions-control equipment to meet stringent pollution limits. ²³² EPD mentions in its progress report that, under a settlement agreement, Virginia Electric and Power Company (VEPCO) agreed to spend \$1.2 billion by 2013 to eliminate 237,000 tons of SO ₂ and NO _x emissions each year from eight coal-fired electricity generating plants in Virginia and West Virginia. ²³³ EPD mentions in its progress report that, under a 2002 voluntary agreement, Gulf Power upgraded its operation to significantly cut NO _x emissions at its Crist generating plant. ²³⁴ EPD mentions in its “State Control Programs Included in the 2028 Projection Year” chapter that EPA reached a settlement with Lehigh Cement Company/Lehigh White Cement Company (US District Court, Eastern District of

²³⁰ See 42 U.S.C. § 7410(a)(2); 40 C.F.R. §§ 51.308(d), (f).

²³² Proposed SIP at 253.

²³³ *Id.*

²³⁴ *Id.*

	Description of Approvability Issue	Where the Issue Arises in the Proposed SIP
	would be subject to is the anti-backsliding provisions. ²³¹	<p>Pennsylvania) on December 3, 2019, to settle alleged violations of the CAA. EPD states that this settlement will reduce emissions of NOx and SO2 and applied to facilities located in several states.²³⁵</p> <p>EPD mentions in its “State Control Programs Included in the 2028 Projection Year” that on August 3, 2018, Anchor Glass Container agreed to convert six of its furnaces to oxyfuel furnaces and will meet NOx emission limits at these furnaces that are consistent or better than best available control technology. EPD states that, in remaining furnaces, Anchor agreed to install oxygen enriched air staging and meet more stringent emission limits. To control SO2, Anchor agreed to install dry or semi-dry scrubber systems on two furnaces. Remaining furnaces must achieve batch optimization and meet enforceable emissions limits. Anchor also agreed to install NOx and SO2 continuous emissions monitoring systems at all furnaces.²³⁶</p>
3	Documentation to support alleged reductions from EPA programs must be included	<p>Mercury and Air Toxics Standard (MATS) Rule.²³⁷</p> <p>Cross State Air Pollution Rule (CSAPR).²³⁸</p> <p>2010 SO2 NAAQS.²³⁹</p>

²³¹ Section 110(l) of the Act prohibits EPA from approving an implementation 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); *see also El Comite Para El Bienestar de Earlimart v. EPA*, 786 F.3d 688, 692 (9th Cir. 2015). This provision is designed to ensure that air-quality improvements are not reversed through regulatory actions to weaken pollution limits. This anti-backsliding provision would to existing BART and forthcoming RP determinations, including provisions specific to the TVA’s plants, as the Act’s “applicable requirement[s]” include the regional haze program’s BART/RP requirements. *See Oklahoma v. EPA*, 723 F.3d 1201, 1204, 1207 (10th Cir. 2013). Indeed, Courts have routinely upheld EPA interpretations of Section 110(l) as preventing implementation plan revisions that would increase overall air pollution limits or worsen air quality. *See WildEarth Guardians v. EPA*, 759 F.3d 1064, 1074 (9th Cir. 2014) (a haze plan that “weakens or removes any pollution controls” would violate Section 110(l)); *see also Indiana v. EPA*, 796 F.3d 803, 812 (7th Cir. 2015) (noting that EPA allows “emissions-increasing SIP revisions” if a state “identif[ies] substitute emissions reductions such that net emissions are not increasing.”); *Ala. Envtl. Council v. EPA*, 711 F.3d 1277, 1293 (11th Cir. 2013) (Section 110(l) “permit[s] approval of [a] SIP revision ‘unless the agency finds it will make air quality worse’” or increase emissions) (quotation and citation omitted); *Kentucky Resources Council v. EPA*, 467 F.3d 986, 995 (6th Cir. 2006) (Section 110(l) allows the agency to approve a plan revision that weakened some existing control measures while strengthening others, but only “[a]s long as actual emissions in the air are not increased” and “air quality [is not] worse[ned]”).

²³⁵ *Id.* at 109.

²³⁶ *Id.*

²³⁷ *Id.* at 106-7.

²³⁸ *Id.* at 105-6.

²³⁹ *Id.* at 107.

	Description of Approvability Issue	Where the Issue Arises in the Proposed SIP
	Enforceable requirements from an existing EPA program must be fully documented, with specifics including projected emissions to be reduced through implementation of each program through 2028 as relevant to Georgia's sources and sectors.	Onroad and Non-Road Programs. ²⁴⁰
		2007 Heavy-Duty Highway Rule ²⁴¹
		Tier 3 Motor Vehicle Emissions and Fuel Standards. ²⁴²
		Non-Road Diesel Emissions Programs/Rule. ²⁴³
		Emission Control Area Designation and Commercial Marine Vessels. ²⁴⁴
		Various Federal Maximum Achievable Control Technology (MACT) regulations. ²⁴⁵
4	Future emission reductions must be known	EPD suggests that "further reductions may be necessary at certain point sources" ²⁴⁶ to comply with the 2010 SO ₂ NAAQS. EPD cannot rely on such speculative, unquantified, and unenforceable emission reductions to demonstrate reasonable progress.
5	Documentation to support alleged reductions from state programs must be contained, including documentation the program is in the SIP	Georgia Rule 391-3-1-.02(2)(sss) "Multi-Pollutant Control for Electric Utility Generating Units." ²⁴⁷
		North Carolina Clean Smokestacks Act. ²⁴⁸
6	SIP does not include provisions to address anticipated emission increases	The Proposed SIP fails to quantify airport emissions, its impacts or include provisions monitoring or limiting those emissions. ²⁴⁹

Moreover, the SIP fails to include practically enforceable emission limitations reflecting the retirements, operational, or process changes, or installation of air pollution controls. Thus, the public has no assurance that Georgia's 2028 emission inventory projection upon which EPD's reasonable progress goals are based will be realized. EPD must not rely on these alleged emission reductions for purposes of the RH SIP unless there are enforceable provisions in the SIP. Further, to enable the public to evaluate these assumed (but not required) emission reductions and increases, EPD must provide a baseline emissions inventory for these various source categories and sources where it has failed to do so.

²⁴⁰ *Id.*

²⁴¹ *Id.*

²⁴² *Id.* at 108.

²⁴³ *Id.*

²⁴⁴ *Id.*

²⁴⁵ *Id.* at 256-8.

²⁴⁶ *Id.* at 107.

²⁴⁷ *Id.* at 109.

²⁴⁸ *Id.* at 108.

²⁴⁹ *Id.* at 42.

D. EPD Wrongly Suggests Existing Emission Trading Programs That Do Not Include Georgia’s Sources Will Continue to Reduce Visibility Impairing Pollutants.

EPD’s proposal to rely on existing emission trading programs and upcoming EPA actions is misplaced.²⁵⁰ Regarding EGUs covered by CSAPR and the other emission trading programs, EPD should not rely on that program to drive emission reductions for several reasons. Contrary to the RHR requirements that emission limitations apply for the entire year, the CSAPR requirements only apply during the ozone season. EPD fails to quantify the amount of reductions from these trading programs, indeed its Proposed SIP admits that EPA’s CSAPR Update²⁵¹ does not even apply to Georgia sources.²⁵² Therefore, it is impermissible for EPD to suggest it will rely on emission reductions from a program that does not have sources within its State.

E. It is Inconsistent with Clean Air Act’s Requirements to Use Visibility as a Fifth Factor to Decide Reasonable Progress Controls.

Because EPD has used visibility impacts (or supposedly minimal or insufficient visibility improvements) to reject emission controls at a number of large air pollution sources, the Proposed SIP is at odds with the plain language of the CAA. Georgia cannot rely on visibility impacts to exclude emission reducing measures from sources that otherwise satisfy the four statutory factors.

The Act explicitly identifies that the RP analysis is done based on four factors:

1. The costs of compliance,
2. The time necessary for compliance,
3. The energy and non-air quality environmental impacts of compliance, and
4. The remaining useful life of any potentially affected sources.

The plain language of the Act clearly bounds the information for each of the factors. Indeed, EPA has expressly stated that consideration of visibility is not to be used as an offramp for reduction requirements.²⁵³ Thus, where cost-effective controls are readily identifiable for a source, EPD’s rejection of such cost-effective controls based on visibility benefits is an improper application of visibility as an additional factor.²⁵⁴ Where EPD’s reasonable progress analyses consider information outside the bounds of the four statutory factors (*e.g.*, air quality impacts, modeling results, emission inventories, etc.) it is inconsistent with the Act’s four-factor analysis,²⁵⁵ and the SIP should be revised accordingly before submission the EPA. EPD must not rely on

²⁵⁰ Proposed SIP at 105-6.

²⁵¹ Proposed SIP at 106, citing 81 Fed. Reg. 74504 (Oct. 26, 2016).

²⁵² *Id.*

²⁵³ 2021 Clarification Memo at 13 (“[A] state should not use visibility to summarily dismiss cost-effective potential controls.”).

²⁵⁴ *Id.* at 13.

²⁵⁵ The Regional Haze program takes air quality impacts into consideration in selecting which sources are evaluated for the reasonable progress four-factor analysis, and to apply that same metric twice is not consistent with how Congress designed the program.

visibility to exclude emission reducing measures from a source that would otherwise be required to do so under the four statutory factors.

F. EPD's Reliance on the "Glide Path" and Its Methodology to Adjust the RPGs for Class I Areas within Georgia Violates the Clean Air Act and Regional Haze Rule.

1. EPD Erroneously Proposes to Rely on the Glide Path

EPD attempts to justify deferring any further emission reductions by pointing out that monitoring data for its Cohutta and Okefenokee Class I areas appear to be trending below the area's glide path or URP, which the agency suggests is sufficient to achieve reasonable progress.²⁵⁶ Suggesting that a historical monitoring emission trend will continue, without enforceable SIP emission limitations to secure reductions, does not ensure the future of emissions. In the same vein, Section 7 of EPD's Proposed SIP sets about to answer the following question about how much improvement is expected, rather than the proper question of how much improvement is *possible* with application of the required four-factor analysis requirement:

Assuming implementation of existing federal and state air regulatory requirements in Georgia and the VISTAS region, how much visibility improvement, compared to the glide path, is expected at Cohutta Wilderness Area and Okefenokee National Wilderness Area by 2028?²⁵⁷

EPD's Proposed SIP further presents information from VISTAS model results for the 2028 inventory compared to the URP glide path for Georgia's Class I area.²⁵⁸ Based on the significantly flawed VISTAS modeling, EPD suggests that "[a]t both Cohutta Wilderness Area and Okefenokee National Wilderness Area, visibility improvements on the 20% most impaired days are expected to be significantly better than the uniform rate of progress glide path by 2028."²⁵⁹ EPD also claims that for Cohutta Wilderness Area and Okefenokee National Wilderness Area, "visibility improvements are well ahead of the timeline noted on the URP."²⁶⁰ However, EPA has made clear that meeting or exceeding the URP does *not* obviate the need for states to conduct a robust four-factor analysis and make a technical demonstration as to whether additional controls or emission reductions are reasonable. "[A]n evaluation of the four statutory factors is required . . . regardless of the Class I area's position on the glidepath . . . the URP does

²⁵⁶ See, e.g., Proposed SIP at 127 ("At both Cohutta Wilderness Area and Okefenokee National Wilderness Area, visibility improvements on the 20% most impaired days are expected to be significantly better than the uniform rate of progress glide path by 2028."); *id.* at 128 ("...haze in Cohutta Wilderness Area is projected to be 30% lower than the expected visibility for 2028 on the URP. Likewise, for Okefenokee National Wilderness Area, haze is projected to be 11% lower than the expected visibility for 2028 on the URP. For these areas, visibility improvements are well ahead of the timeline noted on the URP."); *id.* at 115 ("...visibility conditions in 2028 on the 20% clearest visibility days are expected to continue to improve at both Cohutta Wilderness Area and Okefenokee National Wilderness Area").

²⁵⁷ Proposed SIP at 105.

²⁵⁸ See, e.g., Proposed SIP 126.

²⁵⁹ *Id.* at 112.

²⁶⁰ *Id.* at 128.

not establish a ‘safe harbor’ for the state in setting its progress goals.”²⁶¹ Rather, states must “determine what emission limitations, compliance schedules and other measures are necessary to make reasonable progress by considering the four factors” and must not reject “control measures determined to be reasonable” based on the degree of progress.²⁶²

Contrary to EPD’s Proposed SIP, it is not correct to suggest that the SIP is approvable because “the RPGs will be at least as stringent as the expected glide path prediction for Cohutta Wilderness Area, Okefenokee National Wilderness Area, and Wolf Island National Wilderness Area.”²⁶³ That is not the test EPA’s rule requires. Again, EPD’s suggestion that the RPGs being under the glide path is a safe harbor is inappropriate. In its 2021 Clarification Memo, EPA reiterated that the uniform rate of progress is “not a safe harbor,” and that it is not appropriate to reject cost-effective emission reductions on the basis that visibility in a particular Class I area is on the glide path. Instead, states are required to “evaluate and determine emission reduction measures that are necessary to make reasonable progress by *considering the four statutory factors*.”²⁶⁴

2. EPD Must Not Revise the RPGs Based on Projected Modeling and Incomplete Interstate Consultations That Are Not Reflected in Enforceable SIP Requirement²⁶⁵

EPD’s proposed RPGs are inconsistent with the legal requirements for several reasons. First, EPD’s Proposed SIP proposes to rely on the VISTAS baseline 2028 modeling to set its RPGs. The emission inventory inputs in VISTAS modeling are neither *enforceable* via SIP emissions limitations, nor do they represent *recent actual emissions*.²⁶⁶ In addition, as discussed throughout these comments, the VISTAS modeling is significantly flawed and uses methodology

²⁶¹ 81 Fed. Reg. 66,331, 66,631 (Sept. 27, 2016); *see also* 81 Fed. Reg. 296, 326 (Jan. 5, 2016) (determining, as part of the reasonable progress federal implementation plan for Texas, “the uniform rate of progress is not a ‘safe harbor’ under the Regional Haze Rule.”); EPA, Responses to Comments at 120, Promulgation of Air Quality Implementation Plans; State of Texas; Regional Haze and Interstate Visibility Transport Federal Implementation Plan: Best Available Retrofit Technology and Interstate Transport Provisions, EPA Docket No. EPA-R06-OAR-2016-6011 (June 2020) (“EPA has repeatedly and consistently taken the position that meeting a specific reasonable progress goal is not, itself, a “safe harbor,” and does not relieve the state of the obligation to consider additional measures for reasonable progress. If it is reasonable to make more progress than the URP, a state must do so, as EPA explained in the 1999 Regional Haze Rule) (citing 64 Fed. Reg. at 35732); *see also* 81 Fed. Reg. at 66,370 (“EPA’s longstanding interpretation of the Regional Haze Rule is that ‘the URP does not establish a ‘safe harbor’ for the state in setting its progress goals.”) (quoting 79 Fed. Reg. 74,818, 74,834)).

²⁶² 82 Fed. Reg. at 3093; *see also* 81 Fed. Reg. at 66,631.

²⁶³ Proposed SIP at 228.

²⁶⁴ 2021 Clarification Memo at 15-16 (emphasis added).

²⁶⁵ Proposed SIP at 235-242.

²⁶⁶ 40 C.F.R. § 51.308(f)(2)(iii) (“*The State must document the technical basis, including modeling, monitoring, cost, engineering, and emissions information, on which the State is relying to determine the emission reduction measures that are necessary to make reasonable progress in each mandatory Class I Federal area it affects. The State may meet this requirement by relying on technical analyses developed by a regional planning process and approved by all State participants. The emissions information must include, but need not be limited to, information on emissions in a year at least as recent as the most recent year for which the State has submitted emission inventory information to the Administrator in compliance with the triennial reporting requirements of subpart A of this part. However, if a State has made a submission for a new inventory year to meet the requirements of subpart A in the period 12 months prior to submission of the SIP, the State may use the inventory year of its prior submission.*”) (emphasis added).

that is inconsistent with the RHR. Second, EPD must not propose its RPGs until it first conducts the required four-factor analyses for *all* the required sources, establishes emission limits in the SIP, and uses those limitations to set the RPGs. Indeed, the RHR explicitly requires Georgia to make meaningful reductions to ensure reasonable progress towards the national goal of restoring visibility. As discussed above, at a minimum there are control measures available that likely satisfy the four factors and therefore must be required at sources both evaluated and excluded by EPD. Third, to the extent EPD's Proposed SIP defers controls that satisfy the four-factor analysis to a later planning period simply because its Class I area is on the glidepath, its action is contrary to the CAA and the RHR.

EPD's "glide path" rationale is also misplaced because the agency failed to accurately evaluate and apply results of CAA's reasonable progress four-factor analyses in determining whether emission reductions may be necessary to ensure reasonable progress towards natural visibility in each Class I area that Georgia's sources affect, as required by the RHR.²⁶⁷ Moreover, while EPD identified sources in other states that impact its Class I areas, as discussed elsewhere in our comments, it failed to complete its state-to-state consultation obligations. Indeed, as our comments and analyses of the sources indicate, there are emission reductions that Georgia must include as enforceable emission limitations in its SIP. EPD's decision to not adjust the RPGs based on these erroneous determinations (i.e., its flawed VISTAS baseline 2028 modeling) is misplaced.

G. EPD Should Disclose Emission Inventory Projections and Identify Measures Needed to Prevent Future Impairment of Visibility.

The RH program requires states to adopt measures to prevent future visibility impairment as well as to address existing visibility impairment.²⁶⁸ EPD's Proposed SIP lacks an accurate analysis of 2028 emission inventory projections and future source development. The public has no information to assess whether emissions from specific source categories are projected to increase between 2011 and 2028 as seen in other states (*e.g.*, anticipated new development in the State, ammonia emissions from nonroad sources, visibility-impairing pollutants from oil and gas and others). EPD must analyze future emission inventory projections, explain what these emissions sources are within the state and discuss the programs it has in place to address any potential future increases in emissions. Importantly, EPD must evaluate the measures that may be needed to prevent any currently projected future increases in visibility-impairing emissions from these source categories. Moreover, as EPD develops permit modifications for existing sources and permits for new sources, it *must* take regional haze implications into consideration – these requirements must be discussed and committed to in the State's SIP, which EPD has not done.

²⁶⁷ See 40 C.F.R. § 51.308(f)(2) ("Each State must submit a long-term strategy that addresses regional haze visibility impairment for each mandatory Class I Federal area within the State *and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State.*") (emphasis added); *id.* § 51.308(f)(3)(ii)(A)-(B).

²⁶⁸ See, 42 U.S.C. § 7491(a)(1)); 40 C.F.R. § 51.300(a).

H. EPD Must Establish and Provide a Basis for A Cost Effectiveness Threshold.

EPA’s regional haze guidance and regulations require that the SIP “explain why the selected [cost] threshold is appropriate for that purpose and consistent with the requirements to make reasonable progress.”²⁶⁹ We strongly encourage EPD to take into consideration that states like Colorado and Oregon recently indicated that they are each “using \$10,000 per ton of regional haze pollutant as the nominal cost threshold to determine cost effective control strategies for Round 2 RP.”²⁷⁰ NPS also commented that “[m]any states have identified a cost-effectiveness threshold in their draft proposals in this round of regional haze planning . . . For example, other states have proposed the following cost/ton thresholds: \$5,000/ton in Arkansas (EGUs) and Texas; \$6,100/ton in Idaho; \$10,000/ton in Colorado and Oregon; [a] range from \$5,000 to \$10,000/ton in Nevada; [a] range from \$4,000 to \$6,500/ton in Arizona.”²⁷¹ NPS added that “[s]ome of the controls evaluated by Georgia are well within these cost-effectiveness ranges.”²⁷² As explained in EPA’s Guidance, EPD must provide a basis for and establish the cost effectiveness threshold upon which the State bases its decision, including an explanation of why the cost effectiveness threshold is appropriate and consistent with the requirement to make reasonable progress.²⁷³

I. Retirements Relied on to Justify No Control and No Upgrades Must be Reflected as Enforceable SIP Measures

Where EPD is either relying on – or plans to rely on – retirements or operation changes to justify a no control and no upgrade option, it must make those changes enforceable as SIP measures. To the extent that a state declines to evaluate additional pollution controls for any source based on that source’s planned retirement or decline in utilization, it must incorporate those operating parameters or assumptions as enforceable limitations in the second planning period SIP. The CAA requires that “[e]ach state implementation plan . . . *shall*” include “enforceable limitations and other control measures” as necessary to “meet the applicable requirements” of the Act.²⁷⁴ The RHR similarly requires each state to include “enforceable emission limitations” as necessary to ensure reasonable progress toward the national visibility goal.²⁷⁵ Moreover, where a source plans to permanently cease operations or projects that future operating parameters (*e.g.*, limited hours of operation or capacity utilization) will differ from past practice, and if this projection affects whether additional pollution controls are cost-effective or

²⁶⁹ 2019 Guidance at 39.

²⁷⁰ “Prehearing Statement of the Colorado Department of Public Health and Environmental, Air Pollution Control Division,” *In the Matter of Proposed Revisions to Regulation No 23* (Oct. 7, 2021) at 7, (further explaining that “[t]his threshold is applied to the individual pollutants in the control strategy analyses, specifically NO_x, PM, and SO₂. This threshold value is an increase from Round 1 and reflects the fact that with each successive round of planning, less costly and easier to implement strategies have already been adopted. Colorado has maintained this threshold throughout the planning process despite the fact that each of the Class I areas in Colorado is below the URP for 2028.”) (Exhibit 5); “Oregon Regional Haze State Implementation Plan, For the period 2018 – 2028,” (Aug. 27, 2021 Public Notice Draft) (Exhibit 6).

²⁷¹ NPS Consultation Comments at 11.

²⁷² *Id.*

²⁷³ 2019 Guidance at 38, 39; *see* 40 C.F.R. § 51.308(f)(2).

²⁷⁴ 42 U.S.C. § 7410(a)(2)(A) (emphasis added).

²⁷⁵ *See generally* 40 C.F.R. § 51.308(d)(3).

necessary to ensure reasonable progress, then the state “must” make those parameters or assumptions into enforceable limitations.²⁷⁶

Underscoring this requirement of enforceability, reasonable progress goals (RPGs) adopted by a state with a Class I area must be based only on emission controls measures that have been adopted and are enforceable. Thus, if EPD has relied on any proposed retirements or operation changes as part of its long-term strategy to ensure reasonable progress, the agency must, at a minimum, make those retirement decisions federally enforceable with compliance deadlines for retirement by the end of the second planning period.

Further, even where a source has a federally enforceable retirement date, EPD is obligated to consider whether there are cost-effective control measures that could be implemented in the meantime. Once again, EPA’s 2021 Clarification Memo is instructive. There, the agency made clear that in evaluating reasonable progress for all sources, states should consider the “full range of potentially reasonable options for reducing emissions . . . may be able to achieve greater control efficiencies, and, therefore, lower emission rates, using their existing measures.”²⁷⁷ As mentioned throughout these comments, there are some types of control measures that are likely to be cost-effective even within shorter timeframes.

J. EPD Ignores and the SIP Lacks Controls for Nitrate Contributions from Point Sources at Class I Areas.

EPD’s Proposed SIP does not consider controls on nitrate contributions from point sources at Class I Areas. As discussed in these comments, in Victoria R. Stamper’s Report, and expressed by the USDA Forest Service²⁷⁸ and NPS,²⁷⁹ nitrate contributions from point sources at Class I Areas that Georgia sources impact are not insignificant. There are many opportunities for EPD to control NO_x from the same point sources of interest for SO₂ emissions.

Indeed, EPA’s 2021 Clarification Memo establishes an expectation that states will minimally consider SO₂ and NO_x, absent strong documentation such consideration would be unreasonable.²⁸⁰

For example, regarding Plant Bowen, although Units 1-4 have very effective NO_x controls, “the units do not consistently reduce NO_x emissions to the maximum extent practicable.”²⁸¹ Stamper’s “review of monthly NO_x emission rates at each Plant Bowen unit as reported to EPA’s Air Markets Program Database shows that the units appear to operate the SCR

²⁷⁶ See 40 C.F.R. pt. 51, App. Y § (IV)D.4.d.2.

²⁷⁷ 2021 Clarification Memo at 7.

²⁷⁸ USDA Forest Service Consultation Specific Comments, at 3, “the USDA Forest Service would like EPD to be aware of the increasing contribution of NO_x to visibility impairment. For the Cohutta Wilderness area from 2001-2020, while SO₂ contributions to visibility impairment have decreased from 85% to 45%, NO_x contributions to visibility impairment have increased from 2% to 27% on the most impaired days.³ The USDA Forest Service recommends EPD assess NO_x controls for reasonable progress for the EPD-identified and additional recommended facilities.”

²⁷⁹ NPS Consultation Comments at 6, “the NPS recommends that Georgia consider NO_x emission reduction opportunities in this round of RH SIP development.”

²⁸⁰ 2021 Clarification Memo at 4-5.

²⁸¹ Victoria R. Stamper’s Report at 10.

most optimally during the ozone season and, during other times of the year, either the SCR is not operated to minimize NO_x to the extent practicable or not operated at all.”²⁸²

Regarding International Paper – Savannah D Stamper’s report pointed out that EPD “did not evaluate any NO_x controls for PB13. GEPD must also evaluate NO_x controls for PB13 to achieve reasonable progress.”²⁸³ Similarly, regarding Plant Scherer, Stamper’s report commented that EPD must “evaluate setting lower NO_x emission limits for each Plant Scherer unit to ensure that the SCRs are operated continuously throughout the year and to ensure optimal operation of the SCR systems” and that “significant emission reduction could be achieved at no capital cost but with the operational expense of increased operation of the SCR system and thus would surely be cost effective.”²⁸⁴ Finally, referring to Plant Wansley, Stamper’s report stated that these “units and SCR systems are capable of meeting a 0.07 lb/MMBtu NO_x limit” and that EPD should “evaluate the control option of requiring each Wansley unit to meet a 0.07 lb/MMBtu NO_x emission limit year-round. At the minimum, GEPD should evaluate imposing a long term average limit that reflects year-round operation of the SCR systems at each Plant Wansley unit.”²⁸⁵

EPD must require complete and fully documented four-factor NO_x analyses for the sources discussed in these comments, independently review the analyses, filling in gaps where necessary, and then establish practically enforceable emission limitations in the SIP reflecting reasonable progress controls.

K. EPD’s Assertion that it Lacks Adequate Resources Is Not a Valid Reason to Avoid the Act’s Requirements.

EPD’s apparent assertion that it lacks the time, personnel, and funding resources to develop a complete regional haze SIP does not excuse it from the Act’s requirements.²⁸⁶ The Act and implementing regulations require that states have adequate resources and authority, indeed states are required to certify to EPA in each SIP submission and periodically for infrastructure SIPs that they have such resources and authorities.²⁸⁷ Alternatively, if EPD finalizes its proposed determination that it lacks the resources necessary to develop a complete [and potentially

²⁸² *Id.*

²⁸³ *Id.* at 14.

²⁸⁴ *Id.*

²⁸⁵ *Id.* at 22.

²⁸⁶ *See, e.g.*, Proposed SIP at i (“The ten states, through VISTAS, completed most of the technical requirements using contracted resources.”), *id.* at 141 (“...focusing resources on the control of SO₂...”), *id.* at 193 (“This process also resulted in selecting a number of sources that Georgia, and states that contribute to Georgia Class I areas, could analyze with the limited resources available to the state.”), *id.* (“Overall, the VISTAS screening approach results in a reasonable number of sources that can be evaluated with limited state resources and focuses on the sources and pollutants with the largest impacts.”)

²⁸⁷ 42 U.S.C. §§ 7410(a)(2)(J), 7410(a)(2)(D)(i), 7410(a)(2)(D)(ii), 7410(a)(2)(E)(i); 40 C.F.R. part 51, Appendix V; *see, e.g.*, EPA’s application of Act’s requirements when Wyoming asserted it lacked of authority to impose RP requirements, 79 Fed. Reg. 5032 (Jan. 30, 2014).

approvable] SIP, then it must follow in the footsteps of Montana and notify EPA that Georgia will defer to EPA's development and implementation a regional haze FIP on their behalf.²⁸⁸

L. EPD's Materials Proposed for Adoption into the Regulatory Portion of the Georgia SIP Fail to Meet Statutory and Regulatory Requirements.

The CAA requires states to submit implementation plans that “contain such emission limits, schedules of compliance, and other measures as may be necessary to make reasonable progress toward meeting the national goal” of achieving natural visibility conditions at all Class I Areas. The RHR requires that states must revise and update their regional haze SIPs, and the “periodic comprehensive revisions must include the “enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress as determined pursuant to [40 C.F.R. §§ 51.308](f)(2)(i) through (iv).” The emission limitations and other requirements of the RHR must be adopted into the SIP. Furthermore, under the Rule, reasonable progress goals adopted by a state with a Class I area must be based only on emission controls measures that have been adopted and are enforceable in the SIP. EPA's Guidance further explains these requirements: “This provision requires SIPs to include enforceable emission limitations and/or other measures to address regional haze, deadlines for their implementation, and provisions to make the measures practicably enforceable including averaging times, monitoring requirements, and record keeping and reporting requirements.”²⁸⁹

EPA's Guidance recognizes EPA's long-standing position that while the SIP is the basis for demonstrating and ensuring state plans meet the regional haze requirements, state-issued permits must complement the SIP and SIP requirements.²⁹⁰ State-issued permits must not frustrate SIP requirements.²⁹¹ For example, sources with PSD permits under Title I must not hold permits that allow emissions that conflict with SIP requirements.²⁹² Additionally, the Act's Title V operating permits collect and implement all the Act's requirements – including the requirements in the SIP – as applicable to the particular permittee. Furthermore, Title V permits are only good for a period of five years and may expire under certain conditions. There is no assurance that Title V permit terms and conditions will be permanent since they may lapse. It is not enough that the Title V permits are reviewable by U.S. EPA, Title V permits are *not* part of the SIP and approved through EPA's SIP process. Finally, Title V sources must not hold such

²⁸⁸ 77 Fed. Reg. 23,988 (Apr. 20, 2012) (EPA's proposed FIP, explained that “[o]n June 19, 2006, Montana submitted a letter to us signifying that the State would be discontinuing its efforts to revise the visibility control plan that would have incorporated provisions of the Regional Haze Rule. The State acknowledged with this letter that EPA would make a finding of failure to submit and thus promulgate additional federal rules to address the requirements of the Regional Haze Rule, including BART. In response to the State's decision EPA made a finding of SIP inadequacy on January 15, 2009 (74 FR 2392), determining that Montana failed to submit a SIP that addressed any of the required regional haze SIP elements of 40 CFR 51.308.”); 77 Fed. Reg. 57,864 (Sept. 18, 2012) (EPA's final FIP).

²⁸⁹ 2019 Guidance at 42-43 (August 20, 2019)

²⁹⁰ 74 Fed. Reg. 13,498, 13,568 (Apr. 16, 1992).

²⁹¹ Furthermore, to the extent stationary source are granted permits by rule or other mechanisms, these other categories of state approval mechanisms that allow construction, operation and increases in emissions must also complement SIP requirements.

²⁹² Additionally, the proposed SIP revisions fail to contain source-specific “measures to mitigate the impacts of construction activities.” 40 C.F.R. § 51.308(d)(3)(v)(B).

permits if they contain permit terms and conditions that conflict with the SIP and CAA requirements.

VIII. EPD MUST ANALYZE ENVIRONMENTAL JUSTICE IMPACTS OF ITS REGIONAL HAZE SIP AND SHOULD ENSURE THE SIP WILL REDUCE EMISSIONS AND MINIMIZE HARMS TO DISPROPORTIONATELY IMPACTED COMMUNITIES.

EPD has both state and federal obligations to meaningfully consider and advance environmental justice in its regional haze SIP. Unfortunately, the Proposed SIP's summary of what an environmental justice analysis entails falls short of these commitments.

A. EPD Must Consider Environmental Justice to Comply with Executive Orders.

There are several legal grounds for considering environmental justice when determining reasonable progress controls. Under the CAA, states are permitted to include in a SIP measures that are authorized by state law but go beyond the minimum requirements of federal law.²⁹³ Ultimately, EPA will review the Final Haze Plan that Georgia submits, and EPA will be required to ensure that its action on Georgia's Haze Plan addresses any disproportionate environmental impacts of the pollution that contributes to haze. Executive Orders in place since 1994, require federal executive agencies such as EPA to:

[M]ake achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations”²⁹⁴

On January 27, 2021, the current Administration signed “Executive Order on Tackling the Climate Crisis at Home and Abroad.”²⁹⁵ The new Executive Order on climate change and environmental justice amended the 1994 Order and provides that:

It is the policy of [this] Administration to organize and deploy the full capacity of its agencies to combat the climate crisis to implement a Government-wide approach that reduces climate pollution in every sector of the economy; ... protects public health ... delivers environmental justice ... [and that] ... [s]uccessfully meeting these challenges will require the Federal Government to

²⁹³ See *Union Elec. Co v. EPA*, 427 U.S. 246, 265 (1976) (“States may submit implementation plans more stringent than federal law requires and . . . the Administrator must approve such plans if they meet the minimum requirements of s 110(a)(2).”); *Ariz. Pub. Serv. Co. v. EPA*, 562 F.3d 1116, 1126 (10th Cir. 2009) (quoting *Union Elec. Co.*, 427 U.S. at 265) (“In sum, the key criterion in determining the adequacy of any plan is attainment and maintenance of the national air standards . . . ‘States may submit implementation plans more stringent than federal law requires and [] the [EPA] must approve such plans if they meet the minimum [Clean Air Act] requirements of § 110(a)(2).’”); *BCCA Appeal Group v. EPA*, 355 F.3d 817, 826 n. 6 (5th Cir. 2003) (“Because the states can adopt more stringent air pollution control measures than federal law requires, the EPA is empowered to disapprove state plans only when they fall below the level of stringency required by federal law.”).

²⁹⁴ Exec. Order No. 12898, § 1-101, 59 Fed. Reg. 7629 (Feb. 16, 1994), as amended by Exec. Order No. 12948, 60 Fed. Reg. 6381 (Feb. 1, 1995).

²⁹⁵ Exec. Order No. 14008, 86 Fed. Reg. 7619 (Jan. 27, 2021).

pursue such a coordinated approach from planning to implementation, coupled with substantive engagement by stakeholders, including State, local, and Tribal governments.²⁹⁶

Georgia can facilitate EPA's compliance with these Executive Orders by considering environmental justice in its SIP submission.

B. EPA's Regional Haze Guidance and 2021 Clarification Memo for the Second Implementation Period Directs States to Consider Environmental Justice.

EPA's 2021 Clarification Memo directs states to take into consideration environmental justice concerns and impacts in issuing any SIP revision for the second planning period.²⁹⁷ EPA's 2019 Regional Haze Guidance for the Second Planning Period specifies, "States may also consider any beneficial non-air quality environmental impacts."²⁹⁸ This includes consideration of environmental justice in keeping with other agency policies. For example, EPA also pointed to another agency program that states could rely upon for guidance in interpreting how to apply the non-air quality environmental impacts standard: "When there are significant potential non-air environmental impacts, characterizing those impacts will usually be very source- and place-specific. Other EPA guidance intended for use in environmental impact assessments under the National Environmental Policy Act may be informative, but not obligatory to follow, in this task."²⁹⁹ A collection of EPA policies and guidance related to the National Environmental Policy Act ("NEPA") is available at <https://www.epa.gov/nepa/national-environmental-policy-act-policies-and-guidance>. One of these policies concerns Environmental Justice.³⁰⁰ Georgia EPD should consider these sources of information in conducting a meaningful environmental justice analysis.

C. EPA has a Repository of Material Available for Considering Environmental Justice.

In addition to the NEPA guidance materials referenced above, EPA provides a wealth of additional material.³⁰¹ The most important aspect of assessing Environmental Justice is to identify the areas where people are most vulnerable or likely to be exposed to different types of pollution. EPA's EJSCREEN tool can assist in that task. It uses standard and nationally consistent data to highlight places that may have higher environmental burdens and vulnerable populations.³⁰²

²⁹⁶ *Id.* at § 201.

²⁹⁷ EPA July 2021 Memo at 16.

²⁹⁸ EPA 2019 RH Guidance at 49.

²⁹⁹ *Id.* at 33.

³⁰⁰ *See*, EPA Environmental Justice Guidance for National Environmental Policy Act Reviews, <https://www.epa.gov/nepa/environmental-justice-guidance-national-environmental-policy-act-reviews>.

³⁰¹ *See*, EPA: Learn About Environmental Justice, <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>.

³⁰² *See*, EPA EJSCREEN: Environmental Justice Screening and Mapping Tool, Additional Resources and Tools Related to EJSCREEN, <https://www.epa.gov/ejscreen/additional-resources-and-tools-related-ejscreen>.

D. EPA Must Consider Environmental Justice.

As occurred in the first planning period, if a state fails to submit its SIP on time, or if EPA finds that all or part of a state's SIP does not satisfy the Regional Haze regulations, then EPA must promulgate its own Federal Implementation Plan to cover the SIP's inadequacy ("FIP"). Should EPA promulgate a FIP that reconsiders a state's four-factor analysis, it is completely free to reconsider any aspect of that state's analysis. The two Presidential Executive Orders referenced above require that federal agencies integrate Environmental Justice principles into their decision-making. EPA has a lead role in coordinating these efforts, and recently EPA Administrator Regan directed all EPA offices to clearly integrate environmental justice considerations into their plans and actions.³⁰³ Consequently, should EPA promulgate a FIP, it has an obligation to integrate Environmental Justice principles into its decision-making. The non-air quality environmental impacts of compliance portion of the third factor, is a pathway for doing so.

E. EPD Must Consider Environmental Justice under Title VI of the Civil Rights Act.

As EPA must consider Environmental Justice, so must EPD and all other entities that accept Federal funding. Under Title VI of the Civil Rights Act of 1964, "no person shall, on the ground of race, color, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity...". EPD has an obligation to ensure the fair treatment of communities that have been environmentally impacted by sources of pollution. That means going beyond the current analysis conducted to inform the "meaningful involvement"³⁰⁴ of impacted communities; environmental justice also requires the "fair treatment" of these communities in the development and implementation of agency programs and activities, including those related to the SIP.

EPD should conduct a thorough analysis of the current and potential effects to impacted communities from sources considered in the SIP as well as those facilities that commenters and other stakeholders identified but that EPD did not review. By not conducting this analysis and including the benefits of projected decline in emissions to these communities in their determination of the included emission sources, EPD is not fulfilling its obligations under the law. Moreover, the state is making a mockery of Title VI by not using the SIP requirements to bring about the co-benefits of stronger reductions measures and reduce harms based on continued emissions.

³⁰³ See, EPA News Release, EPA Administrator Announces Agency Actions to Advance Environmental Justice, *Administrator Regan Directs Agency to Take Steps to Better Serve Historically Marginalized Communities* (April 7, 2021), <https://www.epa.gov/newsreleases/epa-administrator-announces-agency-actions-advance-environmental-justice>

³⁰⁴ Proposed SIP at 225.

F. Properly Addressing Haze Pollution from Georgia's EGUs Would Result in Significant Environmental Justice Benefits.

Many of the coal fired EGU sources in Georgia have significant environmental justice implications. For example, Plant Bowen is located in a community that is 20% people of color. Poverty rate in the area is 15%, and the average income is \$17,882. Meanwhile, the plant's SO2 emissions are 9,231 tons per year and NOx emissions are 5,732 tons per year. Clean Air Task Force retained Abt to model the health impacts of Bowen in 2019 and concluded that Plant Bowen has the following annual health impacts on the community: 59 deaths; 7 hospital admissions; 13 asthma ER visits; 28 heart attacks; 34 acute bronchitis; 637 asthma attacks; and 3,020 work loss days.³⁰⁵

Plant Scherer is located in a community that is 29% people of color. Poverty rate in the area is 12%, and the average income is \$19,263. Meanwhile, the plant's SO2 emissions are 1,221 tons per year and NOx emissions are 10,068 tons per year. Clean Air Task Force retained Abt to model the health impacts of Scherer in 2019 and concluded that Plant Scherer has the following annual health impacts on the community: 16 deaths; 2 hospital admissions; 4 asthma ER visits; 7 heart attacks; 9 acute bronchitis; 166 asthma attacks; and 787 work loss days.³⁰⁶

Plant Wansley is located in a community that is 26% people of color. Poverty rate in the area is 21%, and the average income is \$17,085. Meanwhile, the plant's SO2 emissions are 1,654 tons per year and NOx emissions are 977 tons per year. Clean Air Task Force retained Abt to model the health impacts of Wansley in 2019 and concluded the plant has the following annual health impacts on the community: 9 deaths; 1 hospital admission; 2 asthma ER visits; 4 acute bronchitis; 101 asthma attacks; and 480 work loss days.³⁰⁷

Shockingly, even though these plants are clearly very large sources of visibility-impairing pollutants and have a significant impact on environmental justice communities in Georgia, EPD failed to even conduct a reasonable progress and four-factor analysis for two of these three coal-fired plants (Plant Scherer and Plant Wansley), and the analysis conducted for the third (Plant Bowen) was entirely insufficient. The communities living in proximity to these plants deserve more.

IX. CONCLUSION

We appreciate EPD's consideration of these comments and ask the agency to revise its SIP accordingly. Please do not hesitate to contact us with any questions.

Sincerely,

³⁰⁵ [https://www.tollfromcoal.org/#/map/\(title:703/detail:703/map:703/GA\)](https://www.tollfromcoal.org/#/map/(title:703/detail:703/map:703/GA)).

³⁰⁶ [https://www.tollfromcoal.org/#/map/\(title:6257/detail:6257/map:6257/GA\)](https://www.tollfromcoal.org/#/map/(title:6257/detail:6257/map:6257/GA)).

³⁰⁷ [https://www.tollfromcoal.org/#/map/\(title:6052/detail:6052/map:6052/GA\)](https://www.tollfromcoal.org/#/map/(title:6052/detail:6052/map:6052/GA)).

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X. EXHIBITS

1. NPCA Regional Haze Fact Sheet: Georgia.
2. Victoria R. Stamper, “Review and Comments on Reasonable Progress Four-Factor Analyses Evaluated as Part of the Georgia Regional Haze Plan for the Second Implementation Period” (July 25, 2022), including attachments: (1) Spreadsheet with Plant Bowen Daily 2017-2021 SO₂ and NO_x Emissions Evaluation; (2) Spreadsheet with Coal Data from Energy Information Administration’s Coal Data Browser, Shipments to Bowen; (3) EPA’s Retrofit Cost Analyzer Spreadsheet for International Paper Power Boiler No. 13 for revised CDS and DSI cost effectiveness calculations; (4) February 8, 2012 Direct Testimony of Christian T. Beam on behalf of Southwestern Electric Power Company, In the Matter of Southwestern Electric Power Company’s Petition for a Declaratory Order Finding that Installation of Environmental Controls at the Flint Creek Power Plant is in the Public Interest, Before the Arkansas Public Utilities Commission, Docket 12-008-U; (5) Spreadsheet with Plant Scherer Daily 2017-2021 SO₂ and NO_x Emissions Evaluation; (6) Spreadsheet with Plant Wansley Daily 2017-2021 SO₂ and NO_x Emissions Evaluation.
3. Letter from Stephanie Kodish, NPCA, Leslie Griffith, SELC, and David Rogers, Sierra Club to VISTAS State Air Directors, “Significant Flaws in VISTAS Regional Haze CAM_x Modeling and Methods; Recommendations to Develop Compliant State Implementation Plans” (May 12, 2021).

4. Joe Kordzi, “A Review of the Ohio Regional Haze State Implementation Plan.” (June 2021).
5. “Prehearing Statement of the Colorado Department of Public Health and Environmental, Air Pollution Control Division,” *In the Matter of Proposed Revisions to Regulation No 23* (Oct. 7, 2021).
6. “Oregon Regional Haze State Implementation Plan, For the period 2018 – 2028,” (Aug. 27, 2021 Public Notice Draft).