October 7, 2022

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Office of Air and Radiation
Environmental Protection Agency
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Dear Principal Deputy Assistant Administrator Goffman:

National Parks Conservation Association, Sierra Club and Earthjustice ask EPA to swiftly act to ensure compliance with the Clean Air Act's (CAA) regional haze program. To this end, this letter identifies the sources and states with high Class I area contributions of visibility impairing pollution with the most opportunity for emission reductions to assure reasonable progress. We recommend each EPA region issue a Federal Implementation Plan (FIP) to replace deficient regional haze State Implementation Plans (SIP). EPA action is necessary to realize the objectives of the regional haze program and correct the many egregious SIP deficiencies identified in our comment letters and expert reports.[1]

EPA must address systemic problems across states as it applies the CAA and Regional Haze Rule (RHR) requirements as identified in the letter we sent January 21, 2022.[2] This letter first summarizes the fundamental legal and analytical flaws common to many of the SIPs submitted thus far across the country. In taking action

[1] A list of the Conservation Organizations' comment letters and expert reports on the priority states appear at the end of this letter in Exhibit 1.
[2] Letter from Stephanie Kodish, Senior Director and Counsel, Clean Air and Climate Programs, National Parks Conservation Association, Sara L. Laumann, Principal, Laumann Legal, LLC, Counsel for NPCA, Gloria D. Smith, Managing Attorney, Sierra Club, Environmental Law Program, Charles McPhedran, Senior Attorney, Earthjustice, to Joseph M. Goffman, Principal Deputy Assistant Administrator, Office of Air and Radiation, Environmental Protection Agency (Jan. 22, 2022) ("Conservation Organizations' January 2022 Letter") (Ex. 2).

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on each of the SIPs discussed below, EPA must ensure that any reasonable progress determinations comport with the legal requirements of the CAA and the RHR, that all emission limitations and assumptions are enforceable, and that the states properly consider environmental justice, as required by EPA's Clarification Memorandum and President Biden's Executive Orders. EPA must disapprove the state plans that fail to adhere to those fundamental requirements, and we urge the agency to implement federal plans that satisfy the CAA's mandate to adopt, after a robust evaluation of the statutory factors, "enforceable emission limitations" that ensure reasonable progress toward natural visibility goals.

This letter identifies the states that we believe should take priority for EPA attention and action. We present source emissions data for the facilities or sectors per state based on criteria specified below that captures a reasonable scenario of potential pollutant reductions necessary for achieving reasonable progress. We focus on the states with SIPs already submitted to EPA; however, we have also flagged states that have yet to submit SIPs for public comment that we have reason to believe will be priorities as well.

This letter also describes thematic, significant flaws in priority states per region that have submitted SIPs in Regions 3, 4, 5, 6, 7, 8, 9 and 10. With these common deficiencies in the SIPs, EPA has a strong analytical and legal basis for disapproving those plans and adopting a FIP per region. We then provide a high-level case study for states in Regions 3 and 4 to demonstrate how a streamlined FIP approach could work in practice. This is followed by common analytical and legal flaws in the priority states for the other named EPA regions. Because the states of Arizona and California in Region 9 have different and distinct issues, we recommend EPA act on those states in separate actions.

While we have provided a streamlined approach here for EPA to act by region, the same approvability problems can be used alternatively to justify EPA disapproving state SIPs individually. We welcome the opportunity to discuss the contents of this letter with EPA.

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I. Every EPA Regional Haze Final Action Must Provide for the Following

A. Reasonable progress determinations must comport with the legal requirements

EPA cannot approve SIPs that are based on flawed Four-Factor Analyses, which lack required documentation and reasonable assumptions and consider and weight issues beyond their legal scope. For example, our comments identified use of improper interest rates; shortened equipment life assumptions; disallowed costs such as escalation during construction; Allowance for Funds Used During Construction ("AFUDC"); unsupported contingency factors; and owners costs. Moreover, states routinely only considered controls if they are in the RACT, BACT, LAER Clearinghouse ("RBLC"),[3] which is inadequate on its own given that the data it hosts is incomplete because states do not generally upload determinations and therefore the information is out of date. While a number of states identified reasonable progress measures for selected sources, many rested a "no additional measures" decision on what they judged to be visibility benefits too small to warrant emission reduction measures despite the fact that the degree of visibility benefits is not a statutory factor nor a justifiable criteria to excuse an otherwise valid control measures.[4] Finally, most SIPs failed to document emissions and controls, and when

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[3] It is the state's responsibility to independently review, evaluate and verify a draft Four-Factor Analysis submitted by a source and submit a SIP that complies with the Act. 40 C.F.R. § 51.308(f)(2)(i)("The State must evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering 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. The State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources. The State must 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. In considering the time necessary for compliance, if the State concludes that a control measure cannot reasonably be installed and become operational until after the end of the implementation period, the State may not consider this fact in determining whether the measure is necessary to make reasonable progress." (emphasis added); *see also* 42 U.S.C. § 7491(g)(1); *see also* 40 C.F.R. §§ 51.308(d)(3), (f)(2)(i); *see also* 42 U.S.C. §§ 7410(a)(2)(A); 7491(b)(2) (SIP must include among other things, requiring enforceable emission limitations necessary to ensure reasonable progress); moreover, EPA must not rely on unreasonable and inaccurate analysis.

[4] Visibility is not a consideration on par with the four statutory reasonable progress factors as is plain in the Act, and as consistently asserted by EPA may not purport a lack of perceptible or sufficient visibility improvements to excuse selecting emission controls. While visibility is the goal of the regional haze program, *id.* at 7491(a)(1), the four-factor reasonable progress evaluation does not itself incorporate visibility, and states may not give it the same weight as the four statutory factors. Regional haze is "visibility impairment that is caused by the emission of air pollutants from numerous sources located over a wide geographic area." 40 C.F.R. § 51.301. At any given Class I area, hundreds or even thousands of individual sources may contribute to regional haze. As EPA's Clarification Memorandum provides, "...a state should not use visibility to summarily dismiss cost-

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information requests were submitted to states for this information, we received incomplete information.[5]

B. Emissions limitations and assumptions relied on for compliance must be enforceable

Under the CAA, "[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) (emphasis added). The RHR similarly requires each state to include "enforceable emission limitations" as necessary to ensure reasonable progress toward the national visibility goal.[6] For example, SIPs that rely on source retirements must be enforceable in the SIP.[7] Additionally, emission limits, monitoring, recordkeeping and reporting

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effective potential controls. ...a state that has identified cost-effective controls for its sources but rejects most (or all) such cost-effective controls across those sources based on visibility benefits is likely to be improperly using visibility as an additional factor." *See*, Memorandum from Peter Tsirigotis, Director, Office of Air Quality Planning and Standards, to Regional Air Division Directors Regions 1-10, "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period," at 13, (July 9, 2021), https://www.epa.gov/visibility/clarifications-regarding-regional-haze-state-implementation-plans-second-implementation ("Clarification Memorandum"). Thus, it is not appropriate to reject a control measure for a single emission unit, a single source, or even a group of sources on the basis of the associated visibility benefits being imperceptible to the human eye or too small to justify emission reduction measures that would otherwise satisfy a Four-Factor Analysis.

[5] Conservation Organizations' January 2022 Letter at 6 ("... most of the proposed SIPs do not include any information on unit-specific emissions, making it impossible for the public to review, comment and determine if correct units in a facility are being analyzed, and the historical emissions of the units being analyzed. The public cannot meaningfully comment on the proposed SIPs. Moreover, commenters are forced to submit state freedom of information requests for the unit-specific emission information, which are generally ignored, untimely and/or incomplete.")

[6] *See generally* 40 C.F.R. § 51.308(d)(3).

[7] Memorandum from Peter Tsirigotis, Director at EPA Office of Air Quality Planning and Standards, to EPA Air Division Directors Regions 1-10, "Guidance on Regional Haze State Implementation Plans for the Second Implementation Period," at 22, EPA-457/B-19-003 (Aug. 2019), https://www.epa.gov/sites/production/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf ("Regional Haze Guidance") (if a state opts to exempt sources from further control analysis based on a planned retirement schedule, the source must "have an enforceable commitment to be retired or replaced by 2028.") Where the SIP relies on a source's plans to permanently cease operations or reduction in utilization to ensure reasonable progress or to avoid any control analysis, those parameters or assumptions must be included in enforceable emission limitations in the SIP itself.

40 C.F.R. pt. 51, App. Y § (IV)D.4.d.2. 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. *Id.* at 8-9 (emphasis added).

While the CAA does not define the phrase "remaining useful life," EPA has consistently stated that the retirement of a facility can be used to shorten a source's remaining useful life only if the retirement is enforceable. Thus, in order to affect the remaining useful life in a SIP, a state must incorporate the retirement requirements into its SIP. If a potential retirement is not enforceable in the SIP, it cannot be relied upon to shorten the remaining useful life of a source.

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requirements must be included in the SIP.[8] The CAA requires that states 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.[9] The RHR requires that states must revise and update their 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 [51.308](f)(2)(i) through (iv)."[10]

Furthermore, EPA's Regional Haze 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.[11]

Thus, EPA's Regional Haze Guidance recognizes EPA's long-standing position that SIPs must contain provisions with enforceable emissions limitations. As discussed in our comment letters, many State SIPs failed to include these provisions.[12]

C. A source must not be exempt from reasonable progress measures just because other clean air program standards do or might apply to it

Many states erroneously relied on prior BART determinations,[13] despite the fact that BART-eligible sources must be reassessed for controls under the

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[8] 42 U.S.C. §§ 7410(a)(2)(A), 7491(b)(2) (SIP must include among other things, requiring enforceable emission limitations necessary to ensure reasonable progress), *see also* 40 C.F.R. § 51.308(f)(2) ("The long-term strategy must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to (f)(2)(i) through (iv)."). These provisions are essential to successful implementation of the program, transparency and enforcement by EPA and the public.

[9] Regional Haze Guidance at 42-43 (While NPCA filed a Petition for Reconsideration regarding EPA's issuance of the Regional Haze Guidance, it does not dispute the information in the Regional Haze Guidance referenced here regarding enforceable limitations, which cites to the "General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990, 74 Fed. Reg. 13,498 (April 16, 1992).

[10] 74 Fed. Reg. 13,568 (emphasis added).

[11] Regional Haze Guidance at 42-43.

[12] Conservation Organizations' January 2022 Letter at 7-9 (*e.g.*, Indiana, Michigan, North Carolina, Tennessee, Washington).

[13] *See e.g.*, Conservation Organizations' Comment letters to Indiana, Michigan, South Carolina, Texas, West Virginia.

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reasonable progress requirements.[14] States also relied on coverage under CAIR/CSAPR, MATS and other existing programs to avoid Four-Factor Analysis and controls for the second planning period.[15] These state decisions are inconsistent with the RHR requirements. Likewise, looking ahead to other rules that may find intersection with sources of haze pollution, like the recently proposed Good Neighbor Rule, it would also be problematic for states or EPA to assume a facility would be adequately controlled by a forthcoming rule and/or absent reasonable progress analysis. While it may be the case that another program or standard resulted in "effective emission controls" that would also satisfy the RHR, this conclusion must be supported by analysis. EPA provides in the Regional Haze Guidance and the Clarification Memorandum that for a source with controls recently installed there may be a "low likelihood" of technological advances however the state must nonetheless specify why its decision is consistent with reasonable progress requirements. That is, "...why it is reasonable to assume for the purposes of efficiency and prioritization that a full four-factor analysis would likely result in the conclusion that no further controls are necessary."[16]

II. Consideration of Environmental Justice

As discussed in our January, 2022 letter, our comment letters to states have consistently identified reasonable progress sources located in and impacting environmental justice communities and Class I areas. Moreover, our comments also discussed state and federal authorities for state action on those sources that lack the best pollution controls or lack upgrades to reduce emissions and lessen the burden on air pollution on these communities.[17] Across the source tables presented herein facilities with an "*" denote the sources NPCA identified as sources of concern due to their potential to impair visibility at Class I areas *and* their likely impact to vulnerable communities. The selection was made using environmental justice markers such as people of color and people living below the poverty line. NPCA used American Community Survey data from the United States Census Bureau at the county and city levels to identify vulnerable communities. Additional information at the community or neighborhood levels was used when available for this selection. The sources identified lack the best pollution controls or lack pollution control upgrades to further reduce emissions and lessen the burden of air

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[14] 40 C.F.R. § 51.308(e)(5) ("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 ... BART, BART-eligible sources will be subject to the requirements of paragraphs (d) and (f) of this section."). Regional Haze Guidance at 25 (the RHR "anticipates the re-assessment of BART-eligible sources under the reasonable progress Rule Provisions" and "states may not categorically exclude all BART-eligible sources, or all sources that installed BART controls, as candidates for selection for analysis of control measures.")

[15] *See, e.g.*, Conservation Organizations' January 2022 Letter at 9-19, .

[16] Regional Haze Guidance at 23.

[17] *See, e.g.*, Conservation Organizations' January 2022 Letter at 41-45.

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pollution in these communities. We will continue to make EPA aware of similar sources of concern identified in our future comment letters. We ask the agency to consistently evaluate environmental justice and recognize that in satisfying the CAA and RHR reasonable progress requirements not only will clean air to our public lands be restored, but also healthy air to our communities. Control measures that ought to be required for reasonable progress as recommended throughout our state, source and EPA specific haze comments will also deliver significant benefits to overburdened communities.

III. Prioritization Analysis

To identify the priority states and sources we considered the following factors:

- Level of source emissions
- Proximity to Class I areas
- Uncontrolled sources
- Underperforming sources
- Sources with retirement options
- Potential emission reductions (based on our experts' technical reviews)
- Adjacency to environmental justice communities.

We have identified the following 20 states that have provided for public comment on their SIPs by applying the above factors (AZ, CA, FL, GA, IN, LA, MI, MN, MO, NC, ND, OH, OK, SC, TN, TX, UT, WA, WV, and WY).

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Figure 1. Priority States with Completed Public Comment Opportunities.

The priority states include a total of 235 priority sources, as presented in the discussion on each of the EPA regional offices and includes:

- Sources without best pollution controls
- Sources not effectively controlled
- Sources with announced retirements (not enforceable)
- Sources with significant levels of nitrogen oxide (NO_X), sulfur dioxide (SO_2) and/or particulate matter (PM) emissions
- Sources located in or adjacent to EJ communities.

The degree of emission reductions feasible for sources by state and pollutants is illustrated below. Figure 2 is based on Conservation Organization submitted Four-Factor Analyses correcting cost analyses and other issues, as explained in our comment letters. Additionally, the potential emission reductions are from a selected number of sources where information about the cost of controls and other necessary information was available. Because most of the state SIPs failed to provide the required supporting documentation, there are a significant number of sources for which we cannot estimate the level of potential emission reductions, so the actual degree of emission reductions is likely far greater than that shown in Figure 2.

Figure 2. Potential Reductions NO_X and SO_2 Reductions for Selected Sources by Priority State.[18]

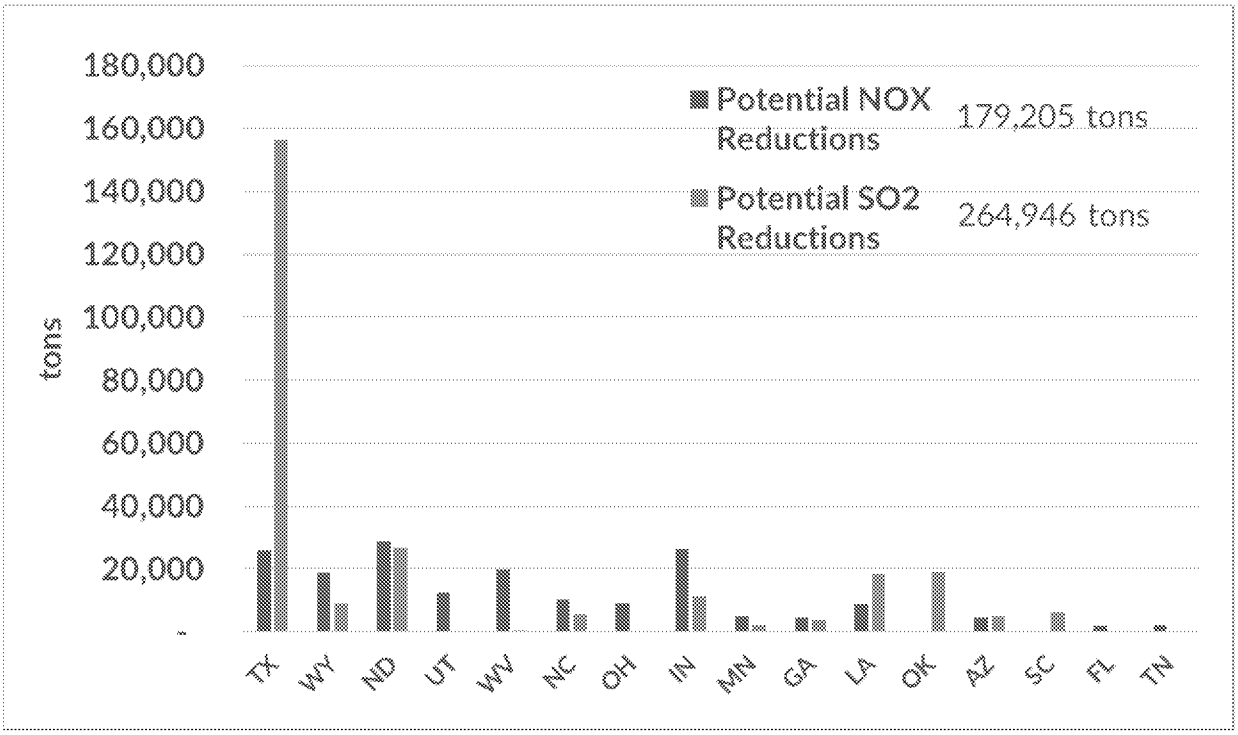

Figure 3 below shows in yellow the additional six priority states that have not yet provided public comment (*i.e.*, Alabama, Illinois, Kentucky, Nebraska, New Mexico, and Pennsylvania); however, this letter focusses on the SIPs where public comment has been provided.[19] We will submit additional analysis and recommendations as we receive additional information.

[18] This figure includes information for sources for which were able to obtain information about. As discussed elsewhere in this letter, because most SIPs failed to document emissions and controls, and when information requests were submitted to states for this information, we received incomplete information, which is why the potential for reductions is likely far greater than shown in the figure.
[19] Minnesota's public comment closes on October 7, 2022, and we will forward the Conservation Organizations' comments to EPA once our comments are submitted.

Figure 3. Priority States that have Not Issued SIPs for Public Comment (yellow).

Finally, the table below shows the degree of annual emissions from our analysis, including priority states that have not yet provided public notice on their SIPs.

Table 1. NO_X, PM_{10}, and SO_2 Emissions from Priority Sources.

State	NO_X (tons)	PM_{10} (tons)	SO_2 (tons)	Number of sources
AL	42,804	6,014	41,298	23
AZ	16,609	5,744	34,967	11
CA	23,448	11,002	8,911	31
FL	15,718	4,817	26,472	10
GA	21,401	2,790	21,779	9
IL	11,402	1,814	6,932	12
IN	49,963	13,068	58,519	11
KY	49,713	6,216	56,775	18
LA	23,823	3,050	76,546	14
MI	40,419	2,834	36,482	10
MN	39,796	9,413	14,319	15
MO	46,977	7,516	89,085	11
MS	37,176	7,779	40,545	7
NC	28,704	4,080	24,681	8

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ND	31,413	3,703	37,424	9
NE	18,918	1,185	41,502	6
NM	13,835	2,583	4,895	9
OH	38,202	5,830	69,457	7
OK	10,682	2,892	24,836	7
PA	35,531	5,980	52,745	14
SC	12,624	2,408	10,101	7
TN	18,026	8,122	22,664	8
TX	72,276	9,115	165,980	23
UT	29,876	1,038	9,464	9
WA	11,402	1,814	6,932	10
WV	37,176	7,779	40,545	11
WY	48,682	13,444	32,476	14
TOTAL	**816,997**	**148,223**	**1,071,812**	**324**

IV. Streamlined Approaches to Achieve Reductions and Assure Reasonable Progress

Our January letter identified common issues across states, Regional Planning Organizations and EPA Regions. While there are numerous ways EPA can streamline its disapproval and proposed actions on these SIPs to achieve reductions that will assure reasonable progress is made in the second round, we recommend the agency bundle regional haze actions by EPA region given the commonality of major errors per region that resulted in deficient SIP submittals. For example, EPA could streamline its resources in each Region as follows.

A. EPA Regions 3 and 4: VISTAS Case Study

Our recommendation for the states in Regions 3 and 4 is for EPA to issue a FIP on the failure of Visibility Improvement State and Tribal Association of the Southeast (VISTAS) states to consider NO_X. The VISTAS states we have commented on thus far (Florida, Georgia, North Carolina, South Carolina, Tennessee, West Virginia) relied on flawed RPO modeling methods and analysis solely focused on SO_2.[20] The states of Alabama, Kentucky and Mississippi are also

[20] *See*, Letter from National Parks Conservation Association, Coalition to Protect America's National Parks and Sierra Club, to Ashley Kung, Florida Department of Environmental Protection, "Conservation Organizations' Comments on Florida's Proposed Revisions Regional Haze State Implementation Plan for the Second Implementation Period," (July 9, 2021), https://drive.google.com/file/d/1D_I9oqlbHFLAcGDGNSgfU-QGJ4vbd_N9/view?usp=sharing, with

priority states; however, they have not yet issued their regional haze SIP for public notice and comment. EPA must not allow NO_X to be ignored as a visibility impairing

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enclosure, Joe Kordzi, "A Review of the Florida Regional Haze State Implementation Plan," (July 2021), https://drive.google.com/file/d/1X2onXDgY4WhbO0D4FUT3F5t5Xmtv4dtg/view?usp=sharing ("Comment Letter to Florida"); *see also*, Letter from National Parks Conservation Association and Sierra Club to Karen D. Hays, P.E., Chief, Air Protection Branch, Georgia Environmental Protection Division, "Conservation Organizations Comments on the Pre-Hearing Draft Georgia Regional Haze State Implementation Plan," (July 26, 2022), https://drive.google.com/drive/folders/1zffUwEtMwq7tzc5JraDylhrJ8kWrSlfU ("Comment Letter to Georgia"); *see also*, Letter from National Parks Conservation Association, Sierra Club, Southern Environmental Law Center, CleanAIRE NC, Coalition to Protect America's National Parks, and NC League of Conservation Voters, Appalachian Voices, Alliance to Protect our People and the Places We Live, NAACP Stokes County Branch, Center for Biological Diversity, Environment North Carolina and North Carolina Conservation Network, to Randy Strait NC Division of Air Quality, "Conservation Organizations Comments on North Carolina's Proposed Regional Haze State Implementation Plan (SIP) for North Carolina Class I Areas for the Second Planning Period (2019 - 2028)," (Oct. 15, 2021), https://drive.google.com/file/d/1WFPsE_TFWvz0r4TIOmUjqvdJ6T0frm0F/view?usp=sharing, with enclosures, Joe Kordzi, "A Review of the North Carolina Regional Haze State Implementation Plan" (Oct. 2021), https://drive.google.com/file/d/1RDCnruI8EX9TyPzp25M-M3NdnXPBqA_i/view?usp=sharing; D. Howard Gebhart, "Technical Review of North Carolina Regional Haze State Implementation Plan Second Round of Regional Haze State Implementation Plans Supplemental Report" (Oct. 2021), https://drive.google.com/file/d/1UYHgQQAx5xKhItnEuQ3fkFpOk4EtMZ_E/view?usp=sharing ("Comment Letter to North Carolina"); *see also*, Letter from Sierra Club, National Parks Conservation Association, Coalition to Protect America's National Parks, Coastal Conservation League, South Carolina Environmental Law Project, Southern Environmental Law Center, to Scott Bigleman, Air Regulation and Data Analysis Section, "Conservation Organizations' Comments on South Carolina's Regional Haze State Implementation Plan," (Jan. 5, 2022), https://drive.google.com/file/d/1JYrFTBefdsIdK-dVRngRNAbqQyB-0fpe/view?usp=sharing; with enclosure, Joe Kordzi, "A Review of the South Carolina Regional Haze State Implementation Plan" (Dec. 2021), https://drive.google.com/file/d/1R4C0iELLi4RcIrSYN5FCmGOOs4ox727p/view?usp=sharing (Comment Letter to South Carolina"); *see also*, Letter from National Parks Conservation Association, Sierra Club, Tennessee Citizens for Wilderness Planning and Coalition to Protect America's National Parks, to Michelle Owenby, Director, Division of Air Pollution Control, Tennessee Department of Environment and Conservation, "Conservation Organizations Comments on the Pre-Hearing Draft Tennessee Regional Haze State Implementation Plan," (Dec. 10, 2021), https://drive.google.com/file/d/1x4accQc5zY5PjzRk545gUM1gKaBryUzM/view?usp=sharing, with enclosure, Joe Kordzi, "A Review of the Tennessee Regional Haze State Implementation Plan" (Nov. 2021), https://drive.google.com/file/d/1IVKUs9_L4nWXfky7NgO9Bw23z5R7XXok/view?usp=sharing ("Comment Letter to Tennessee"); *see also*, Letter from National Parks Conservation Association, Sierra Club, Appalachian Mountain Advocates, West Virginia Rivers Coalition, Mid-Ohio Valley Climate Action, Eastern Panhandle Green Coalition, West Virginia Highlands Conservancy, West Virginia Climate Alliance, to Todd Shrewsbury, WV Department of Environmental Protection, Division of Air Quality, Conservation Organizations' Comments on the Proposed Regional Haze State Implementation Plan," (Jan. 10, 2022), https://drive.google.com/file/d/15Y5tMGFBrFl5kODmH9y0RSpgvKEmbhgF/view?usp=sharing, with enclosure, Joe Kordzi, "A Review of the West Virginia Regional Haze State Implementation Plan" (Dec. 2021), https://drive.google.com/file/d/1N6BPgPyVClNmLhFcS7poLTVVSYhJ9eFW/view?usp=sharing ("Comment Letter to West Virginia").

pollutant nor dismiss the pervasive availability of cost-effective opportunities for reducing NO_X in the VISTAS states, as well as opportunities for SO_2 controls.

The Class I areas in the VISTAS states include the following:

- Cape Romain Wilderness Area
- Chassahowitzka Wilderness Area
- Cohutta Wilderness Area
- Dolly Sods Wilderness Area
- Everglades National Park
- Great Smoky Mountains National Park
- James River Face
- Joyce Kilmer-Slickrock Wilderness Area
- Linville Gorge Wilderness Area
- Mammoth Cave National Park
- Okefenokee Wilderness Area
- Otter Creek Wilderness Area
- Shenandoah National Park
- Shining Rock Wilderness Area
- Sipsey Wilderness Area
- St. Marks Wilderness Area
- Swanquarter Wilderness Area
- Wolf Island Wilderness Area.

NPCA has identified 83 priority sources in KY, TN, NC, SC, MS, AL, GA, WV, and FL that are likely degrading visibility in Class I Areas. These sources emit more than 185,000 tons of NO_X and more than 200,000 tons of SO_2 each year. In addition to impacting national parks and wilderness areas, the emissions from these sources also negatively impact vulnerable communities. According to data from the EJSCREEN tool, out of the 83 identified polluting sources in EPA Region 4 alone, 47 of them are in communities with more than the 50%ile values for either the $PM_{2.5}$ environmental justice index, ozone environmental justice index, people of color, low income, or unemployment rate. Moreover, EPA Region 4 is home to the federally recognized Tribes: Catawba Indian Nation, Eastern Band of Cherokee Indians, Miccosukee Tribe of Indians of Florida, Mississippi Band of Creek Indians, and Seminole Tribe of Florida. Emission reductions from these sources as part of the regional haze program will not only benefit Class I Areas but also multiple vulnerable populations in the region.[21]

1. VISTAS Flawed Modeling

[21] In the coming weeks, the Conservation Organizations will send a letter to EPA Region 4 communicating additional information regarding environmental justice considerations at a localized level around key sources of haze pollution in Region 4 states.

VISTAS conducted an extensive visibility modeling effort (VISTAS II Comprehensive Air Quality Model with Extensions (CAMx) Modeling),[22] which was intended to assist the states in the development of the second-round regional haze SIPs. The specific goal of the modeling effort was to identify pollution sources negatively affecting Class I Area air quality, thus meriting evaluation through the CAA's four-factor reasonable progress analysis to reduce visibility impairing pollution in the 18 national parks and wilderness areas located within the VISTAS region.

We commissioned an expert modeler to better understand the VISTAS II CAMx modeling approach and found critical problems with the VISTAS model itself as well as the approach recommended to and adopted by the Southeastern states.[23] The states' reliance on the VISTAS modeling resulted in ignoring significant sources of NO_X pollution giving rise to SIPs that if approved would fail to achieve reductions necessary to assure reasonable progress is made in the second round. NPCA's commissioned independent review revealed that the VISTAS modeling effort suffers from the following four serious flaws. Specifically, VISTAS' modeling:

- Results did not accurately reflect sulfate concentrations and excused heavy SO_2 polluters from review.
- Inputs used unreasonable emissions projections for 2028 emissions from the EGUs, which produced model results that do not accurately reflect the EGUs' contributions to visibility impairment, which resulted in exclusion of EGUs that must be analyzed for emission reductions.
- Used outdated monitoring data that does not represent the dramatic shift in nitrate contribution to visibility impairment, which erroneously excluded from review the sources emitting NO_X.
- Used high thresholds and additional unnecessary filters that resulted in an unreasonably low number of sources chosen for consideration of the four-

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[22] VISTAS Regional Haze Program, *see generally*, https://www.metro4-sesarm.org/content/vistas-regional-haze-program; VISTAS Regional Haze Project, Regional Haze Modeling: Task 6, "Regional Haze Modeling for Southeastern VISTAS II Regional Haze Analysis Project Final Modeling Protocol Update and Addendum to the Approved Modeling Protocol for Task 6.1 (June 2018, Final - August 31, 2020), https://www.metro4-sesarm.org/content/task-6-air-quality-modeling; *see also,* VISTAS Regional Haze Project Update (May 20, 2020), https://www.metro4-sesarm.org/content/vistas-haze-presentations.

[23] Letter from Stephanie Kodish, National Parks Conservation Association, Leslie Griffith, Southern Environmental Law Center, 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), https://drive.google.com/file/d/1e0KAljsvNm3Wmj3HRVeyKvafaI-dza0c/view?usp=sharing, with enclosure, D. Howard Gebhart, "Technical Review of VISTAS Visibility Modeling for the Second Round of Regional Haze State Implementation Plans" (May 2021) ("Gebhart 2020 Report"), including attachment "Gebhart Resume Final 2020," https://drive.google.com/file/d/1aMKbgtFxJqvrEVxeSOy96CNvoQ0xhUUv/view?usp=sharing.

factor reasonable progress analyses. The VISTAS analysis failed to consider all visibility impairing pollutants and failed to consider them together.[24]

EPA must not rely on VISTAS unreasonable and inaccurate analysis. EPA has explained its expectation regarding the pollutants considered for source selection and control strategy analysis for the second planning period is that "each state will analyze SO_2 and NO_X in selecting sources and determining control measures."[25] The VISTAS states failed to consider NO_X. Moreover, EPA also explained that "[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,"[26] which the VISTAS states have not done.

Additionally, the VISTAS state SIPs failed to achieve SO_2 reductions that will ensure reasonable progress is made in the second round. The following discussion identifies priority sources in each of the states and provides summaries of select issues raised in our comment letters.

2. The Six Priority VISTAS States with Submitted SIPs

a. Florida

The eight priority sources in Florida appear in the table below.[27] Florida's Class I Areas impacted by these and other sources include: Chassahowitzka Wilderness Area; Everglades National Park; and St. Marks Wilderness Area. As discussed in our comment letter to the State, based on the flawed VISTAS report and other erroneous arguments, Florida wrongfully exempted the priority sources from the Four-Factor Analysis.[28] Additionally, as discussed below, Florida failed to consider and control emissions from pre-harvest sugarcane field burning, which are area sources that must be analyzed and controlled to achieve reductions that will assure reasonable progress is made in the second round. Florida is an example of a number of states where we are identifying non-point area sources as needing to be controlled and the tables in this letter only show point sources and should not be interpreted as displacing the need as displacing the need to remedy area sources.

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[24] *See generally*, D. Howard Gebhart, "Technical Review of VISTAS Visibility Modeling for the Second Round of Regional Haze State Implementation Plans" (May 2021) ("Gebhart 2020 Report"), including attachment "Gebhart Resume Final 2020," https://drive.google.com/file/d/1aMKbgtFxJqvrEVxeSOv96CNvoQ0xhUUv/view?usp=sharing.

[25] Clarification Memorandum at 4, citing Regional Haze Guidance at 12.

[26] Clarification Memorandum at 4-5.

[27] Florida selected 12 sources for Four-Factor Analyses, however, only four conducted the analysis (*i.e.*, Northside, Foley Cellulose and the Westrock sources). The rest of the sources were exempted based on the effectively-controlled argument, which resulted in excluding several large polluting sources as well as sugar cane burning.

[28] Comment Letter to Florida at 6, 13-20.

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Table 2. Priority Sources in Florida.

Facility Name	Description	NOx (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Crystal River -Duke Energy Florida, LLC. *	Electric Power Generation	1,152	3,179	519
Seminole Electric Cooperative, Inc.*	Electric Power Generation	2,203	4,563	338
Northside*	Electric Power Generation	2,864	1,917	297
Mosaic Fertilizer LLC (Mulberry)*	Phosphatic Fertilizer Manufacturing	225	6,887	268
Foley Cellulose LLC*	Pulp, Paper, and Paperboard Mills	1,776	1,538	265
Mosaic Fertilizer, LLC (Bartow)	Phosphatic Fertilizer Manufacturing	152	4,001	132
Westrock CP LLC (Bay County)	Pulp, Paper, and Paperboard Mills	1,645	1,016	132
Westrock CP LLC (Nassau County)	Pulp, Paper, and Paperboard Mills	1,645	1,016	132
Big Bend*	Electric Power Generation	1,279	1,156	104
Deerhaven*	Electric Power Generation	1,388	600	72

b. Georgia

The eight priority sources in Georgia appear in the table below. Our comments to the State explained that the 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 those in neighboring states.[29]

[29] Comment Letter to Georgia at 2.

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Table 3. Priority Sources in Georgia.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Plant Bowen	Fossil Fuel Electric Power Generation	5,732	9,231	995
Plant Scherer*	Fossil Fuel Electric Power Generation	5,905	1,221	637
Savannah	Paperboard Mills	1,309	5,186	389
Rome Linerboard Mill*	Pulp Mills	1,665	1,429	185
Georgia-Pacific Cedar Springs LLC*	Paperboard Mills	2,605	512	170
Brunswick Cellulose Inc*	Pulp Mills	1,445	281	147
Plant Wansley	Fossil Fuel Electric Power Generation	977	1,654	109
Savannah River Mill*	Paper Mills	300	2,012	101
Augusta Mill*	Paperboard Mills	1,463	253	71

c. North Carolina

The eight priority sources in North Carolina appear in the table below. Our comments to the State explained that the SIP will not result in reasonable progress towards improving visibility at the Class I areas its sources impact, including those located in North Carolina: the Great Smoky Mountains National Park; Shining Rock, Linville Gorge and Joyce Kilmer-Slickrock Wilderness Areas; and Swanquarter National Wildlife Refuge as well as Class I areas in neighboring states.[30] North Carolina's SIP dismissed cost-effective upgrades and new controls for SO_2 and NO_X, asserting that visibility benefits are too small to warrant them.[31]

[30] Comment Letter to North Carolina at 3.
[31] Comment Letter to North Carolina at 3.

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Table 4. Priority Sources in North Carolina.

Facility Name	Description	NO_x (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Blue Ridge Paper Products Inc. - Canton Mill	Paper (except Newsprint) Mills	3,419	5,875	2,040
Marshall Steam Station	Fossil Fuel Electric Power Generation	8,751	4,878	859
Belews Creek Steam Station*	Fossil Fuel Electric Power Generation	5,668	3,370	507
Roxboro Steam Electric Plant*	Fossil Fuel Electric Power Generation	4,886	4,142	492
Cliffside Steam Station*	Fossil Fuel Electric Power Generation	2,486	1,383	274
PCS Phosphate Company, Inc. - Aurora*	Phosphatic Fertilizer Manufacturing	408	3,140	267
Domtar Paper Company, LLC*	Paper (except Newsprint) Mills	1,806	770	118
Mayo Electric Generating Plant*	Fossil Fuel Electric Power Generation	1,280	1,123	93

d. South Carolina

The four priority sources in South Carolina appear in the table below. As discussed in our comment letter to the State, the SIP does not result in reasonable progress towards improving visibility at the Class I areas its sources impact, including the Cape Romain Wilderness Area, as well as Class I areas in neighboring states.[32] Despite the thousands of tons of controllable pollution from South Carolina sources, and the many opportunities for cost-effective controls, South Carolina improperly concluded that almost no new reductions in pollution are warranted.[33] Although the four priority sources submitted Four-Factor Analyses, South Carolina arbitrarily refused to require cost-effective emission reductions at any of those facilities to ensure reasonable progress.[34] For example, while the State included a summary of control options for Santee Cooper's Winyah Generating Station, it erroneously concluded that the source was already "effectively controlled," and therefore did not require any additional emission reductions.[35]

[32] Comment Letter to South Carolina at 3.
[33] Comment Letter to South Carolina at 3.
[34] Comment Letter to South Carolina at 3.
[35] Comment Letter to South Carolina at 3.

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Table 5. Priority Sources in South Carolina.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Santee Cooper Cross Generating Station*	Fossil Fuel Electric Power Generation	3,150	3,538	396
Kapstone Charleston Kraft LLC	Pulp Mills	2,119	913	263
International Paper Georgetown Mill*	Paper (except Newsprint) Mills	1,808	919	229
SCE&G Williams	Fossil Fuel Electric Power Generation	2,194	548	181
Westrock CP LLC*	Pulp Mills	1,654	1,480	156
Century Aluminum Of South Carolina Inc	Alumina Refining and Primary Aluminum Product	97	2,046	102
SCE&G Wateree	Fossil Fuel Electric Power Generation	1,602	658	80

e. Tennessee

The six priority sources in Tennessee appear in the table below. Tennessee improperly concluded that almost no new reductions in pollution are warranted.[36] Our comment letter to the State explained that its State's SIP will not result in reasonable progress towards improving visibility at the Class I areas its sources impact, including those located in Tennessee: Great Smoky Mountains National Park and Joyce Kilmer-Slickrock Wilderness Areas as well as Class I areas in neighboring states.[37] Tennessee evaluated just two sources (Eastman Chemical Company and TVA Cumberland Fossil Plant) in a Four-Factor Analyses, however, despite reasonable progress control options neither source was required to implement any additional controls or measures.[38] Furthermore, the State failed to require or conduct Four-Factor Analyses for additional sources to achieve reductions that will ensure reasonable progress is made in the second round.[39] Finally, Tennessee failed to include enforceable retirements in the SIP for sources the State relied on to retire for pollution reduction to help achieve reasonable progress,

[36] Comment Letter to Tennessee at 2.
[37] Comment Letter to Tennessee at 2.
[38] Comment Letter to Tennessee at 2.
[39] Comment Letter to Tennessee at 2.

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including the Kingston and Cumberland TVA coal plants and boilers at the Eastman Chemical Company.[40]

Table 6. Priority Sources in Tennessee.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Gallatin Units 1-4	Electric Power Generation	1,293	1,734	Δ[41]
Eastman Chemical Company	All Other Basic Organic Chemical	6,585	10,747	1,348
TVA Cumberland Fossil Plant*	Fossil Fuel Electric Power Generation	3,919	7,209	536
Trelleborg Coated Systems US, Inc.*[42]	All Other Rubber Product Manufacturing	2	0	422
TVA Kingston Fossil Plant	Fossil Fuel Electric Power Generation	1,259	1,917	245
AGC Industries - Greenland Plant	Flat Glass Manufacturing	2,068	441	161
Packaging Corporation of America*	Paperboard Mills	1,416	616	62
Tennessee Gas Pipeline Company, Station 860*	Pipeline Transportation of Natural Gas	1,484	0	29

f. West Virginia

The 10 priority sources in West Virginia appear in the table below and as our comments to the State explained, West Virginia's failure to require cost-effective emission reductions at any of these sources means the SIP will not result in reasonable progress towards improving visibility at the Class I areas its sources impact, including Dolly Sods Wilderness Area and Otter Creek Wilderness Area, as well as Class I areas in neighboring states.[43] Although the State requested Four-Factor Analyses from several sources, only one source conducted the statutory Four-Factor Analysis, and West Virginia arbitrarily refused to require cost-effective

[40] Comment Letter to Tennessee at 3.
[41] Sources with a Δ were not initially identified in the NPCA analysis.
[42] Source with extremely high PM emissions.
[43] *See generally,* Comment Letter to West Virginia.

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emission reductions at any of these sources to ensure reasonable progress.[44] Furthermore, while West Virginia's SIP counted on emission reductions from retirements to achieve reasonable progress, the SIP failed to include enforceable requirements.[45]

Table 7. Priority Sources in West Virginia.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Harrison*	Fossil Fuel Electric Power Generation	5,575	11,270	1,047
Fort Martin*	Fossil Fuel Electric Power Generation	9,388	4,234	815
Pleasants*	Fossil Fuel Electric Power Generation	4,514	7,044	552
Mount Storm*	Fossil Fuel Electric Power Generation	1,789	1,874	418
John E Amos*	Fossil Fuel Electric Power Generation	4,648	3,516	411
Mountaineer	Fossil Fuel Electric Power Generation	3,579	4,600	384
Grand Town	Fossil Fuel Electric Power Generation	1,672	1,964	204
Longview	Fossil Fuel Electric Power Generation	1,532	2,158	191
Mitchel	Fossil Fuel Electric Power Generation	2,270	2,061	182
West Virginia Alloys, Inc.	Iron and Steel Mills and Ferroalloy	1,066	1,121	131
Morgantown	Fossil Fuel Electric Power Generation	1,142	703	70

B. Common Legal and Analytical Flaws in EPA Regions and Issue Highlights

As discussed in more detail below, and in our comment letters to each respective state, there are a number of common analytical and legal flaws in the SIPs submitted thus far per region to EPA Regions 5, 6, 7, 8, 9, and 10.

1. EPA Region 5

[44] Comment Letter to West Virginia at 3.
[45] Comment Letter to West Virginia at 3.

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Our prioritization list for Region 5 includes the states of Indiana, Michigan, Minnesota, and Ohio. The theme that collectively applies to these states is the states' decisions to unjustifiably disregard control measures that should have been found to satisfy a Four-Factor Analysis (and not consider some sources where that would have been the outcome).

The Class I areas in the Region 5 states include the following:

- Boundary Waters Canoe Area Wilderness
- Isle Royale National Park
- Seney Wilderness Area
- Voyageur's National Park.

a. Indiana

Indiana arbitrarily and unlawfully failed to conduct reasonable progress analyses or consider emissions reductions for many of the state's largest sources of visibility impairment, including the entire EGU sector. The state failed to conduct Four-Factor Analyses for the sources identified in the table below of which seven priority sources are EGUs. Our comments to the State demonstrated that cost-effective controls are available for these sources and should have been required to achieve reasonable progress.[46]

[46] *See*, Letter from Sierra Club, National Parks Conservation Association, The Coalition to Protect America's National Parks, Just Transition Northwest Indiana, Hoosier Environmental Council, Izaak Walton League, and Save the Dunes Comments on Indiana Department of Environmental Management's Proposed Regional Haze State Implementation Plan for Second Implementation Period (Nov. 15, 2021), https://drive.google.com/file/d/1XmXIZ28giuDhkcLlw5dDfX0esZa7pQiO/view?usp=sharing; with enclosure, Joe Kordzi, "A Review of the Indiana Regional Haze State Implementation Plan" (Nov. 2021), https://drive.google.com/file/d/1SUIxM5aRBCit4Wgrw6IURwrO_VD6x1VY/view?usp=sharing.

Table 8. Priority Sources in Indiana.

Facility Name	Description	NO_x (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Cayuga	Fossil Fuel Electric Power Generation	3,044	1,352	Δ[47]
Indiana Michigan Power Dba AEP Rockport	Fossil Fuel Electric Power Generation	6,093	14,341	970
Gibson Generating Station	Fossil Fuel Electric Power Generation	8,121	9,666	726
ArcelorMittal Burns Harbor LLC*	Iron and Steel Mills and Ferroalloy	9,001	12,959	691
Indianapolis Power and Light Petersburg	Fossil Fuel Electric Power Generation	6,946	6,586	556
Clifty Creek	Fossil Fuel Electric Power Generation	5,375	4,191	417
ArcelorMittal Indiana Harbor LLC*	Iron and Steel Mills and Ferroalloy	1,056	1,619	235
Alcoa Warrick Power Plant	Fossil Fuel Electric Power Generation	3,136	648	139
A.B. Brown*	Fossil Fuel Electric Power Generation	2,414	3,957	101
Lone Star Industries Inc - Greencastle	Cement Manufacturing	1,686	169	14
US Steel Gary Works*	All Other Petroleum and Coal Products	3,089	3,030	14

b. Michigan

[47] Sources with Δ were not initially identified in the NPCA analysis.

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Michigan's SIP failed to conduct Four-Factor Analyses for any of the EGU sources.[48] Although Michigan developed a list of sources for which it purported to conduct a Four-Factor Analysis, the State did not in fact evaluate and analyze emission reduction measures for any source.[49] Michigan also failed to properly conduct Four-Factor Analyses for several non-EGU sources, including the priority sources identified: paper mills, kilns, and mines.[50] Our prioritization analysis identified the eleven sources below in Michigan.

Table 9. Priority Sources in Michigan.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Belle River	Fossil Fuel Electric Power Generation	6,469	17,429	512
Tilden Mining Company	Iron Ore Mining	13,738	575	365
Dte Electric Company - Monroe Power Plant	Fossil Fuel Electric Power Generation	4,992	3,960	253
J. H. Campbell Plant	Fossil Fuel Electric Power Generation	3,217	5,780	237
Lafarge Midwest Inc.	Cement Manufacturing	3,734	2,232	138
EES\ Coke Battery LLC*	Iron and Steel Mills and Ferroalloy	1,351	2,820	113
Verso Escanaba LLC	Paper (except Newsprint) Mills	1,721	614	62
St. Marys Cement, Inc. (U.S.)	Cement Manufacturing	1,248	1,551	57
U S Steel Great Lakes Works*	Iron and Steel Mills and Ferroalloy	980	1,502	23
Midland Cogeneration Venture	Fossil Fuel Electric Power Generation	2,969	18	20

[48] Michigan Comment Letter at 6-9.
[49] Michigan Comment Letter at 7.
[50] Michigan Comment Letter at 12.

c. Ohio

Ohio's proposed SIP failed to result in reasonable progress towards improving visibility at the Class I areas its sources impact. Notably, Ohio failed to require controls on its sources, and relied on arguments that fail to comport with the Act and RHR requirements. For example, the State's technical analysis inflated cost effectiveness by using incorrect information for interest rates, equipment life, control efficiency, and retrofit factor and other factors.[51] Furthermore, the proposed SIP unreasonably screened sources from the required Four-Factor Analysis based on faulty assumptions regarding the effectiveness of current controls, and did not require sources to support suggested assumptions and proposed conclusions.

Despite the Act's Four-Factor Analysis requirement, Ohio relied on visibility impacts to reject controls, which is at odds with the plain language of the CAA.[52] A state cannot rely on visibility impacts to exclude emission reducing measures from a source that otherwise satisfies the four statutory factors.[53] Finally, as discussed in our comment letter to Ohio, the State failed to consider the AK Steel facility (now Cleveland-Cliffs) in its SIP, which is a significant source of visibility impairing pollution. The priority sources in Ohio are identified in the table below.

Table 10. Priority Sources in Ohio.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
General James M. Gavin Power Plant	Fossil Fuel Electric Power Generation	7,343	26,474	1,568
Miami Fort Power Station	Fossil Fuel Electric Power Generation	11,359	14,397	1,071

[51] Letter from National Parks Conservation Association, Sierra Club, Coalition to Protect America's National Parks, and Ohio Environmental Council, to Holly Kaloz, Ohio Environmental Protection Agency, Conservation Organizations' Comments on Ohio's Proposed Regional Haze State Implementation Plan for the Second Implementation Period, at 12-15, (June 28, 2021), https://drive.google.com/file/d/1nXb7mzCVx6RtJiz5VahDLlPvWihmOQok/view?usp=sharing, with enclosure, Joe Kordzi, "A Review of the Ohio Regional Haze State Implementation Plan," (June 2021), https://drive.google.com/file/d/1anyw5lJOyNPjqNmG_BbHdwkhMySDOPYR/view?usp=sharing ("Ohio Comment Letter").
[52] Ohio Comment Letter at 18.
[53] Ohio Comment Letter at 18.

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Cardinal Power Plant	Fossil Fuel Electric Power Generation	3,887	9,453	568
Kyger Creek Station	Fossil Fuel Electric Power Generation	5,375	3,747	423
Carmeuse Lime, Inc. - Maple Grove Operations	Lime Manufacturing	2,945	5,761	282
AK Steel Corporation*	Iron and Steel Mills and Ferroalloy	1,963	1,963	179

d. Minnesota

Minnesota initially identified six taconite mining and processing plants that have among the highest Q/d values of sources impacting the state's two Class I areas for Four-Factor Analyses. And yet, MPCA failed to follow the Act's requirements and neither required that the sources conduct nor conducted its own Four-Factor Analyses for the taconite sources. The taconite sources are identified in the table below. For the EGU's the draft SIP unlawfully fails to include practically enforceable emission limitations, as required by the Clean Air Act; unlawfully relied on an announced retirement and failed to consider whether cost-effective control measures could be implemented in the meantime. Finally, the draft SIP unlawfully relied on unenforceable, recent emissions, which are lower than permitted emissions and failed to consider if there were additional cost-effective controls. The priority sources in Minnesota appear below. The Conservation Organizations will submit a comment letter on October 7, 2022, and will share that letter with EPA.

Table 11. Priority Sources in Minnesota.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Us Steel Corp – Minntac*	Iron Ore Mining	6,481	1,207	558
Xcel Energy - Sherburne Generating Plant*	Fossil Fuel Electric Power Generation	7,626	5,483	304
Hibbing Taconite Co*	Iron Ore Mining	3,981	824	274
Us Steel Corp – Keetac*	Iron Ore Mining	5,009	533	243
United Taconite LLC - Fairlane Plant*	Iron Ore Mining	3,743	275	199

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ArcelorMittal Minorca Mine Inc*	Iron Ore Mining	3,063	136	190
Northshore Mining Co - Silver Bay*	Iron Ore Mining	2,169	1,539	188
Boise White Paper LLC - Intl Falls*	Paper (except Newsprint) Mills	841	43	75
Minnesota Power Inc - Boswell Energy Ctr*	Fossil Fuel Electric Power Generation	2,352	577	75
Sappi Cloquet LLC	Paper (except Newsprint) Mills	1,439	152	51
Virginia Department of Public Utilities*	Electric Bulk Power Transmission and Control	299	296	21
American Crystal Sugar - East Grand Forks	Beet Sugar Manufacturing	676	1,301	19
Hibbing Public Utilities Commission	Electric Power Distribution	374	356	18
American Crystal Sugar - Crookston	Beet Sugar Manufacturing	740	775	12
Southern Minnesota Beet Sugar Coop	Beet Sugar Manufacturing	1,004	820	6

2. EPA Region 6

Our prioritization list for Region 6 includes the states of Louisiana, Oklahoma and Texas. The overarching theme for these three states is the states' failure to adequately control SO_2 to achieve reductions that will assure reasonable progress is made in the second round. In these states, the potential for SO_2 reductions from controls is significant – in fact, reductions available from these three states are among the top five states on this prioritization list.

The Class I areas in the Region 6 priority states include the following:

- Big Bend National Park, Texas
- Breton Wilderness Area, Louisiana
- Guadalupe Mountains National Park, Texas
- Wichita Mountains Wilderness, Oklahoma.

a. Texas

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Despite the tens of thousands of tons of controllable pollution from Texas sources including coal-fired powered plants and oil and gas facilities, and the many opportunities for cost-effective controls, Texas's SIP did not require a single source to control emissions and thus fails to achieve reductions that will assure reasonable progress is made in the second round. A significant amount of SO_2 could be controlled through requirements for coal and other park-polluting facilities to install scrubbers.[54] Furthermore, three of the top five largest EGUs emit significant levels of haze causing pollution and are glaringly missing from the TCEQ analysis, including Harrington, Tolk and WA Parish stations.[55] The priority stationary sources for Texas appear in the table below.

Additionally, also absent from the Texas SIP was the inclusion of emissions from oil and gas development. With the CAA goal to eliminate all haze caused by "manmade air pollution," Texas must consider all air pollution sources contributing to impairment in Class I areas including minor, area, mobile, and other sources that can help achieve reasonable progress.[56] Emissions from the extensive oil and gas development in the Permian Basin contributes impaired visibility to nearby national park sites. Texas is one of the States that failed to analyze and include controls on emissions from oil and gas sources. NO_X and SO_2 emissions from point and non-point sources from the oil and gas sector are 326,208 tons per year. Technology is available to reduce these emissions in a cost-effective manner and must be required in a SIP/FIP.[57]

Table 12. Priority Sources in Texas.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Sam Seymour	Electric Power Generation	6,211	930	Δ[58]
Martin Lake Electrical Station	Electric Power Generation	9,489	46,549	1,339

[54] Letter from National Parks Conservation Association, Sierra Club, Environmental Integrity Project, Air Alliance Houston, Earthjustice, to Margaret Earnest, MC206 Air Quality Division Texas Commission on Environmental Quality, "SIP Project Number 2019-112-SIP-NR," at 3 (Jan. 8. 2021), https://drive.google.com/file/d/17LyjtAKVujdcaraMOzvdPlSehEH1guGd/view?usp=sharing ("Comment Letter to Texas").
[55] Comment Letter to Texas at 3.
[56] 42 U.S.C. § 7491(a)(1).
[57] Oil And Gas Sector Reasonable Progress Four-Factor Analysis of Controls for Five Source Categories: Natural Gas-Fired Engines Natural Gas-Fired Turbines Diesel-Fired Engines Natural Gas-Fired Heaters and Boilers Flaring and Incineration, Prepared for National Parks Conservation Association by Vicki Stamper & Megan Williams (March 6, 2020), https://drive.google.com/file/d/1RGWYqXKcfyWzBgxuRXzSiSaCZ9PWDH3y/view?usp=sharing.
[58] Sources with a Δ were not initially identified in the NPCA analysis.

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Harrington Station Power Plant*	Electric Power Generation	2,945	10,476	1,005
Tolk Station*	Electric Power Generation	2,488	7,225	780
WA Parish Electric Generating Station*	Electric Power Generation	4,589	28,811	476
Welsh Power Plant*	Electric Power Generation	4,951	11,178	407
Oklaunion Power Station*	Electric Power Generation	5,215	1,779	386
Limestone Electric Generation Station*	Electric Power Generation	7,470	5,685	255
Oak Grove Steam Electric Station*	Electric Power Generation	4,535	6,974	219
Works No 4	Flat Glass Manufacturing	3,575	526	207
Coleto Creek Power Station	Electric Power Generation	2,419	11,264	176
Oxbow Calcining*	All Other Petroleum and Coal Products	609	11,495	174
San Miguel Electric Plant*	Electric Power Generation	2,267	8,940	153
AEP Pirkey Power Plant	Electric Power Generation	2,804	3,073	145
Newman Station*	Electric Power Generation	1,875	9	89
Twin Oaks	Electric Power Generation	2,050	2,408	75
Streetman Plant*	Ground or Treated Mineral	681	3,493	74
Orange Carbon Black Plant	Other Basic Inorganic Chemical Manufacturing	431	4,078	68
Texarkana Mill*	Paper (except Newsprint) Mills	1,796	76	40
Midlothian Plant	Cement Manufacturing	1,057	971	15
Odessa Cement Plant*	Cement Manufacturing	938	19	12
Sabine Plant	Electric Power Generation	2,484	10	10
Jones Station Power Plant*	Electric Power Generation	1,395	6	6

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b. Louisiana

Louisiana did not conduct reasonable progress analyses or consider SO_2 emissions reductions for sources contributing to visibility impairment.[59] Instead, Louisiana simply attached Four-Factor Analyses conducted by the sources, which are woefully inadequate and fundamentally inconsistent with the CAA and the RHR.[60] Louisiana erroneously relied on unenforceable and unverifiable emission reductions, and decided to improperly defer making any four-factor determinations based on purported emission reductions from existing CAA programs.[61] The priority sources in Louisiana are identified in the table below.

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[59] Letter from Sierra Club and National Parks Conservation Association, to Vivian H. Johnson, Venetta Hayes, Louisiana Department of Environmental Quality, Office of Environmental Assessment, "Sierra Club and National Parks Conservation Association Comments on Louisiana Department of Environmental Quality's Proposed State Implementation Plan for Regional Haze Program for the Second Implementation Period, LDEQ AI# 174156 [LDEQ 2104Pot1, Doc. ID No. 12656414 (Apr. 20, 2021)]," (July 12, 2021), https://drive.google.com/file/d/1bTugkhwmi9LEvqHH3NgtL-vo9O-U8MzN/view?usp=sharing, with enclosures, Victoria R. Stamper, "Review and Comments on Reasonable Progress Four-Factor Analyses for Sulfur Dioxide and Nitrogen Oxide Pollution Controls Evaluated as Part of the Louisiana Regional Haze Plan for the Second Implementation Period," (July 8, 2021), https://drive.google.com/file/d/1pzRZpNW_c6rliibGlcy-WMPuaz6yh49c/view?usp=sharing; D. Howard Gebhart, "Technical Review of Visibility Modeling for the Second Round of Regional Haze State Implementation Plans: State of Louisiana," at 2 (July 2021), https://drive.google.com/file/d/1h93Ntoj4sNpTij2RedYxRexKgM9E6oCo/view?usp=sharing ("Comment Letter to Louisiana").

[60] Comment Letter to Louisiana at 2.

[61] Comment Letter to Louisiana at 2.

Table 13. Priority Sources in Louisiana.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Baton Rouge Calcined Coke Plant	All Other Petroleum and Coal Products	740	15,473	430
Ninemile Point Electric Generating Plant	Fossil Fuel Electric Power Generation	8,334	18	270
Cabot Corp - Ville Platte Plant	Other Basic Inorganic Chemical Manufacturing	937	11,028	267
Big Cajun II Power Plant*	Fossil Fuel Electric Power Generation	1,334	6,015	209
Cabot Corp - Canal Plant	Other Basic Inorganic Chemical Manufacturing	1,035	7,487	202
Sid Richardson Carbon Ltd - Addis Plant	Other Basic Inorganic Chemical Manufacturing	307	7,074	200
Cleco - Brame Energy Center	Fossil Fuel Electric Power Generation	2,706	3,040	194
Columbian Chemicals Co - North Bend Plant	Other Basic Inorganic Chemical Manufacturing	546	6,907	175
Roy S Nelson Plant*	Fossil Fuel Electric Power Generation	2,427	7,674	164
Ivanhoe Carbon Black Plant	Other Basic Inorganic Chemical Manufacturing	732	6,152	150
Union Carbide Corp - St Charles Operations Site	Petrochemical Manufacturing	3,553	436	98

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Cornerstone Chemical Co - Fortier Plant	Plastics Material and Resin Manufacturing	920	1,112	17
Rain CII Carbon LLC - Norco Calcining	All Other Petroleum and Coal Products	128	1,977	16
Mosaic Fertilizer LLC - Uncle Sam Plant	Phosphatic Fertilizer Manufacturing	124	2,154	13

c. Oklahoma

As our comments to the State explained, Section 40 C.F.R. § 51.308(f)(2)(i) indicates that states should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources. The draft SIP indicated that nonpoint (area) sources, in particular those from the oil and gas sector, are the top NO_X emitters of any sector for ODEQ's 2017 emission inventory.[62] In fact, Oklahoma ranks second among the states (after Texas) in NO_X and SO_2 emissions from oil and gas point and nonpoint sources with 83,531 tons per year. Additionally, the State arbitrarily excluded sources of SO_2 pollution from its control analysis, including area sources and BART sources; prescribed insufficient pollution controls for those sources it considered, and relied on an unreasonable Q/d threshold, as well as incorrect cost and control data.[63] The priority stationary sources in Louisiana are identified in the table below.

[62] Letter from Coalition to Protect America's National Parks, National Parks Conservation Association and Sierra Club to Melanie Foster, Air Quality Division, Oklahoma Department of Environmental Quality, "Public Comments of Conservation Organizations on Oklahoma's Draft Regional Haze State Implementation Plan for the Second Period," at 12, (July 1, 2022), https://drive.google.com/drive/folders/1Lx0897l_MSke8f85hj9Flnur3ax4M-HG ("Comment Letter to Oklahoma").
[63] Comment Letter to Oklahoma at 2.

Table 14. Priority Sources in Oklahoma.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Kremlin	All Other Petroleum and Coal Products	769	16,682	781
PSO Northeastern Power Station	Fossil Fuel Electric Power Generation	2,289	4,222	242
Muskogee Generating Station	Fossil Fuel Electric Power Generation	1,753	1,696	73
Sooner Generating Station	Fossil Fuel Electric Power Generation	2,583	587	46
Hugo Generating Station	Fossil Fuel Electric Power Generation	572	1,640	41
Maysville Gas Plant	Natural Gas Liquid Extraction	1,485	2	13
Seminole Generating Station	Fossil Fuel Electric Power Generation	1,231	6	12

3. EPA Region 7

a. Missouri

For Region 7, the state of Missouri is a priority with significant opportunities for emissions reductions from EGUs. The Class I areas in Missouri include the following:

- Hercules-Glades Wilderness Area
- Mingo Wilderness Area.

Although in 2020 Missouri was the second largest emitter of SO_2 and NO_X in the nation, emitting 91,921 tons of SO_2 and 50,219 tons of NO_X, respectively,[64] the State determined that no additional controls were necessary for any source. As detailed in our comment letter to the State, the State's SIP had numerous flaws, for example: used an underinclusive screening method, which resulted in the elimination of about half of Missouri's relevant sources; used an unreasonably low-cost threshold and used unreasonably high-cost estimates to screen out cost-effective controls for its large coal-burning power plants; failed to

[64] Letter from Sierra Club and the National Parks Conservation Association to Stephen Hall, Director, Missouri Department of Natural Resources, Air Pollution Control Department, "Comments on Proposed State Implementation Plan Submittal for Regional Haze Second Planning Period," at 2, (May 5, 2022), https://drive.google.com/drive/folders/1pXu2NS4n5cmlFZjW-8BOU9kyq9Fd9vnv.

consider all emissions control options for its coal-burning power plants, including the optimization of existing equipment; relied on outside agreements with unenforceable and vague terms in lieu of requiring emission standards in the SIP; wrongfully exempted coal-burning power plants from further control analysis based on the state's purported compliance with the Uniform Rate of Progress; and failed to conduct reasonable progress analyses or consider emissions reductions for many of the state's largest sources of visibility impairment.

Additionally, as we pointed out in our comments to the State, Missouri failed to consider environmental justice in its SIP.[65] As our comments to the State illustrated, Missouri's largest sources of haze-causing pollutants disproportionately affect low-income communities that are predominantly home to people of color. Missouri's large industrial cities have their own environmental justice communities. For example, four Ameren EGUs surround St. Louis City (Labadie, Rush Island, Meramec, and Sioux), which is approximately 50% Black.[66] Many parts of north St. Louis are above the 90th percentile nationally for persons of color and above the 80% percentile for low income, according to EPA's EJScreen tool.[67] Haze-causing pollutants have dramatically affected the health of Black children in St. Louis.[68]

The priority sources for Missouri are identified below.

Table 15. Priority Sources in Missouri.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
New Madrid Power Plant Marston*	Fossil Fuel Electric Power Generation	14,078	13,252	1,366
Ameren Missouri Labadie Plant*	Fossil Fuel Electric Power Generation	6,883	34,475	1,293
Thomas Hill	Fossil Fuel Electric Power Generation	8,985	16,697	683
Ameren Missouri Rush Island Plant*	Fossil Fuel Electric Power Generation	2,188	13,201	558
Mississippi Lime Company Ste. Genevieve	Lime Manufacturing	4,960	1,715	312
Ameren Missouri Sioux Plant*	Fossil Fuel Electric Power Generation	4,694	2,119	223

[65] Comments to Missouri at 30-35.
[66] Comment Letter to Missouri at 32.
[67] Comment Letter to Missouri at 32.
[68] Comment Letter to Missouri at 32.

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Sikeston Power Station*	Fossil Fuel Electric Power Generation	812	3,668	211
John Twitty Energy	Fossil Fuel Electric Power Generation	702	1,558	69
Buzzi Unicem Usa Cape Girardeau	Cement Manufacturing	884	558	54
Iatan Generating Station	Fossil Fuel Electric Power Generation	2,326	446	20
Ameren Missouri Meramec Plant*	Fossil Fuel Electric Power Generation	465	1,395	19

4. EPA Region 8

In Region 8, our priority states are: North Dakota, Utah and Wyoming. Thematically the states all failed to consider oil and gas emissions and failed to include four factor emission controls. Beyond this, our recent analysis shows that of the sources that should be subject to emission reducing measures, half implicate environmental justice communities.

The Class I areas in the Region 8 priority states include the following:

- Anaconda-Pintlar Wilderness Area, Montana
- Arches National Park, Utah
- Bob Marshall Wilderness Area, Montana
- Bridger Wilderness Area, Wyoming
- Bryce Canyon National Park, Utah
- Cabinet Mountains Wilderness Area, Montana
- Canyonlands National Park, Utah
- Capitol Reef National Park, Utah
- Fitzpatrick Wilderness Area, Wyoming
- Gates of the Mountain Wilderness Area, Montana
- Glacier National Park, Montana
- Grand Teton National Park, Wyoming
- Medicine Lake Wilderness Area, Montana
- Mission Mountain Wilderness Area, Montana
- North Absaroka Wilderness Area, Wyoming
- Red Rock Lakes Wilderness Area, Montana
- Scapegoat Wilderness Area, Montana
- Selway-Bitterroot Wilderness Area, Montana and Idaho
- Teton Wilderness Area, Wyoming
- U. L. Bend Wilderness Area, Montana
- Washakie Wilderness Area, Wyoming
- Yellowstone National Park, Wyoming, Montana and Idaho
- Zion National Park, Utah.

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Region 8 EJ (from follow up letter to EPA R8)[69]

NPCA has identified several industrial facilities in ND, UT, and WY that are degrading visibility in Class I areas. These sources emit more than 120,000 tons of NO_X and close to 100,000 tons of SO_2 each year. In addition to affecting national parks and wilderness areas, the emissions from these sources also negatively impact vulnerable communities. According to data from the EJSCREEN tool, more than half of these facilities are in communities over the 50th percentile environmental index for $PM_{2.5}$, ozone, people of color, low income, or the unemployment rate. These communities include Indian tribes such as the UTE Indian Tribe of The Uintah and Ouray Reservation and the Navajo Nation in Utah, the Wind River Reservation in Wyoming, the Mandan, Hidatsa, and Arikara Nation in the Fort Berthold Indian Reservation in North Dakota, and the Crow Agency and the Northern Cheyenne Tribe in Montana, among others. Reducing emissions from these sources as part of the regional haze program will not only benefit Class I areas, but also multiple vulnerable populations in the region.

a. North Dakota

North Dakota control evaluation for the state's EGU sector—the Coyote, Coal Creek, Milton Young, Antelope Valley, and Leyland Olds power plants, in particular—relied on numerous unsupported or erroneous cost assumptions, and failed to satisfy the RHR's requirement that the state include the "robust" technical demonstration showing that no additional controls are reasonable. North Dakota arbitrarily concluded that selective catalytic reduction technology is technically infeasible for lignite-burning electric generating units, and failed to mention or evaluate extensive, updated technological data in the record demonstrating that SCR is feasible across lignite EGUs.[70] The State impermissibly exempted EGUs from technically feasible, cost-effective controls based on the purportedly insignificant modeled visibility benefits associated with individual source controls. North Dakota also erroneously and impermissibly relied on unenforceable emission reductions to avoid further control analyses for North Dakota sources. North

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[69] Letter from National Parks Conservation Association, Utah Physicians for a Healthy Environment, Sierra Club, o2 Utah, Healthy Environment Alliance of Utah, Montana Environmental Information Center, Powder River Basin Resource Council, Dakota Resource Council, Wyoming Wilderness Association, to K.C. Becker, Regional Administrator, EPA Region 8, regarding localized environmental justice analyses where NPCA identified 53 industrial facilities in ND, MT, UT, and WY that are degrading visibility in Class I areas, (Sept. 28, 2022), https://drive.google.com/file/d/1sGK1iXO1YIOoYzy8HQ1HuGy9fHIvMXO/view?ts=633b292d.

[70] Letter from National Parks Conservation Association, Sierra Club, and Badlands Conservation Alliance to Mr. Jim Semerad, Director, Division of Air Quality, North Dakota Department of Environmental Quality, "Comments of National Parks Conservation Association and Sierra Club on the Draft North Dakota State Implementation Plan for Regional Haze for the Second Planning Period," (June 1, 2022), https://drive.google.com/drive/folders/1V10mPDtTVqTlwTgyM-a3qE_eQz49899T.

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Dakota is one of the States that failed to analyze and require reductions on emissions from oil and gas sources. NO_X and SO_2 emissions from point and non-point sources from the oil and gas sector are 31,636 tons per year, emissions that must be reduced to make reasonable progress. Finally, the State improperly relied on on-the-books CAA programs to sidestep cost effective controls.

As the NPS explained in its Consultation comments to the State of North Dakota,

> … of all states, North Dakota has the biggest influence on haze in NPS Class I areas based on a cumulative analysis of surrogate visibility impacts (emissions/distance). Emissions from North Dakota point and area sources are significant across the region and specifically contribute to regional haze at Theodore Roosevelt National Park in North Dakota, Badlands and Wind Cave National Parks in South Dakota, and Voyageurs National Park in Minnesota.[71]

[71] National Park Service (NPS) Regional Haze SIP feedback for the North Dakota, Department of Environmental Quality (NDDEQ), at 3, (June 1, 2022).

Table 16. Priority Sources in North Dakota.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Coyote Station	Fossil Fuel Electric Power Generation	5,359	10,060	895
Antelope Valley Station	Fossil Fuel Electric Power Generation	3,563	10,763	847
Coal Creek Station	Fossil Fuel Electric Power Generation	6,515	6,282	669
Milton R. Young Station	Fossil Fuel Electric Power Generation	8,598	2,658	597
Great Plains Synfuels Plant	Natural Gas Distribution	2,580	5,207	486
Leland Olds Station	Fossil Fuel Electric Power Generation	3,982	1,314	373
Tioga Gas Plant	Natural Gas Liquid Extraction	627	749	64
Little Knife Gas Plant	Crude Petroleum and Natural Gas Extraction	19	389	12
Compressor Station No. 4*	Pipeline Transportation of Natural Gas	170	3	11

b. Utah

Utah is home to five iconic and treasured Class I areas—Arches, Bryce Canyon, Canyonlands, Capitol Reef, and Zion National Park—which Congress singled out for protections specifically because of their rare geologic formations, extraordinary landscapes, and awe-inspiring views.

Despite the thousands of tons of controllable pollution from Utah's sources including coal-fired power plants and cement kilns, among others, and the many opportunities for cost-effective controls, Utah improperly concludes that no new emissions reductions are warranted.[72] And the state ignores entirely oil and gas sector operations which emit significant amounts of visibility impairing pollutants and were overlooked in source selection and evaluation for reasonable progress measures. Utah's proposal would result in thousands of tons of SO_2 and NO_X

[72] Letter from National Parks Conservation Association, Sierra Club, Utah Physicians for a Healthy Environment, The Coalition to Protect America's National Parks, the Healthy Environment Alliance of Utah, and O2 Utah to Bryce Bird, Director, Utah Division of Air Quality, "Comments on Utah's Proposed Regional Haze State Implementation Plan for the 2nd Implementation Period," (May 31, 2022), https://drive.google.com/drive/folders/1fo9-M-ZEYW-Nf-GciM-UqnSuxUZ61hxW.

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pollution annually that could otherwise be avoided through feasible and cost-effective controls.

We urge EPA to (1) require significant emission-reducing measures for PacifiCorp's Hunter and Huntington coal-fired power plants or set enforceable retirement dates; (2) set an enforceable shut down date of December 31, 2025 for Intermountain Generation Station; (3) require actual, measurable emission reductions from Sunnyside Cogeneration and other sources; (4) require statewide NO_X requirements for flaring, engines, and other oil and gas sector sources; and (5) address the potentially significant environmental justice impacts resulting from any failure to control these sources. These steps are necessary to comply with the reasonable progress requirements of the CAA.

Utah is one of the States that failed to analyze and include controls on emissions from oil and gas sources. NO_X and SO_2 emissions from point and non-point sources from the oil and gas sector total 16,604 tons per year, emissions that should be reduced through requirements as recommended above.

Table 17. Priority Sources in Utah.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
PacifiCorp - Hunter Power Plant*	Fossil Fuel Electric Power Generation	10,514	3,546	2,540
Intermountain Generation*	Fossil Fuel Electric Power Generation	9,050	2,021	1,887
PacifiCorp - Huntington Power Plant*	Fossil Fuel Electric Power Generation	5,206	2,144	1,286
Sunnyside Cogen	Fossil Fuel Electric Power Generation	428	477	25
US Magnesium LLC-Rowley Plant	Nonferrous Metal (except Aluminum) Smelting	1,005	7	53
Ash Grove Cement Company - Leamington Cement Plant	Cement Manufacturing	1,184	19	34
Graymont Western US Incorporated - Cricket Mountain Plant	Crushed and Broken Limestone Mining and Quarry	533	18	17
Holcim (US) Inc. - Devils Slide Plant	Cement Manufacturing	1,406	196	57
Kennecott Utah Copper LLC - Power Plant Lab Tailings	Other Crushed and Broken Stone Mining and Quarry	461	1,036	28

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c. Wyoming

Despite the thousands of tons of controllable pollution from Wyoming's sources including coal-fired power plants, oil and gas operations, cement kilns, and manufacturing plants, among others, and the many opportunities for reasonable progress controls, Wyoming improperly concluded that almost no new reductions in pollution are warranted.[73] The State erroneously relied on inaccurate Four-Factor Analyses, and some sources failed to submit the requested Four-Factor Analyses (*e.g.*, PacifiCorp for several of its sources).

Wyoming's failure to assure reasonable progress is made in the second round was of concern to the National Park Service, which as discussed in our comments to the State, expressed concern that "NPS managed Class I areas in and near Wyoming are affected by haze causing emissions from the state."[74] In particular the NPS explained that "Yellowstone and Grand Teton National Parks in Wyoming and Rocky Mountain National Park, in Colorado, have not made significant progress toward clearer views on most impaired days in recent years."[75] Additionally, "Badlands and Wind Cave National Parks in South Dakota have actually experienced worsening haze on most impaired days in recent years."[76] Wyoming failed to analyze and include controls on emissions from oil and gas sources. NO_X and SO_2 emissions from point and non-point sources from the oil and gas sector total 33,719 tons per year, emissions that should be reduced as part of a compliant haze plan for the state.

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[73] Letter from National Parks Conservation Association, Sierra Club, Powder River Basin Resource Council, and Coalition to Protect America's National Parks, to Nancy Vehr Administrator Air Quality Division Wyoming Department of Environmental Quality, "Conservation Organizations' Comments on Wyoming's Proposed State Implementation Plan Regional Haze Round Two," (March 22, 2022), https://drive.google.com/drive/folders/1ad4ZjzLYDTWvpzht3e0DxLM4t7L2Cg2q, with enclosure, Joe Kordzi, "A Review of the North Dakota Regional Haze State Implementation Plan, (March 2022)," https://drive.google.com/drive/folders/1vzibeDKHPoQTLp2MgxcxI7NEokR6JFac ("Comment Letter to Wyoming").

[74] Comment Letter to Wyoming at 3. (citations omitted).

[75] Comment Letter to Wyoming at 3. (citation omitted).

[76] Comment Letter to Wyoming at 3. (citation omitted).

Table 18. Priority Sources in Wyoming.

Facility Name	Description	NO_x (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Jim Bridger Plant*	Fossil Fuel Electric Power Generation	7,112	8,892	2,389
Dave Johnston*	Fossil Fuel Electric Power Generation	6,316	7,367	1,433
Laramie River Station*	Fossil Fuel Electric Power Generation	7,191	6,132	1,429
Black Thunder Mine	Bituminous Coal and Lignite Surface Mining	10,945	142	1,361
Naughton Plant	Fossil Fuel Electric Power Generation	3,527	2,566	967
Green River Works*	Potash, Soda, and Borate Mineral Mining	1,848	2,953	935
Westvaco Facility*	Potash, Soda, and Borate Mineral Mining	2,090	1,467	681
North Antelope Rochelle Mine	Bituminous Coal and Lignite Surface Mining	3,269	18	554
Laramie Cement Plant*	Cement Manufacturing	2,267	162	265
Antelope Mine	Bituminous Coal and Lignite Surface Mining	1,372	32	173
Elk Basin Gas Plant	Natural Gas Liquid Extraction	993	668	135
Granger Soda Ash Facility*	Potash, Soda, and Borate Mineral Mining	1,310	194	127
Lost Cabin Gas Plant	Crude Petroleum and Natural Gas Extraction	66	1,210	53
Rock Springs Coal Calcining Plant*	All Other Petroleum and Coal Products	376	673	27

Wyoming's failure to assure reasonable progress is made in the second round was of concern to the National Park Service, which as discussed in our comments to the State, expressed concern that "NPS managed Class I areas in and near Wyoming are affected by haze causing emissions from the state."[77] In particular the NPS explained that "Yellowstone and Grand Teton National Parks in Wyoming and Rocky Mountain National Park, in Colorado, have not made significant progress

[77] Comment Letter to Wyoming at 1.

toward clearer views on most impaired days in recent years."[78] Additionally, "Badlands and Wind Cave National Parks in South Dakota have actually experienced worsening haze on most impaired days in recent years."[79]

5. EPA Region 9

In Region 9 we identified two priority states: Arizona and California. In contrast to the other EPA regions, because of the unique issues in these two states, we recommend that EPA address these two states separately, with Arizona being a higher priority.

The Class I areas in the Region 9 priority State of Arizona include the following:

- Chiricahua National Monument Wilderness Area
- Chiricahua Wilderness Area
- Galiuro Wilderness Area
- Grand Canyon National Park
- Mazatzal Wilderness Area
- Mount Baldy Wilderness Area
- Petrified Forest National Park
- Pine Mountain Wilderness Area
- Saguaro Wilderness Area
- Sierra Ancha Wilderness Area
- Superstition Wilderness Area
- Sycamore Canyon Wilderness Area.

The Class I areas in the Region 9 priority State of California include the following:

- Agua Tibia Wilderness Area
- Caribou Wilderness Area
- Cucamonga Wilderness Area
- Desolation Wilderness Area
- Emigrant Wilderness Area
- Hoover Wilderness Area
- John Muir Wilderness Area
- Joshua Tree National Park
- Kaiser Wilderness Area
- Kings Canyon National Park
- Lassen Volcanic National Park
- Lava Beds Wilderness Area

[78] Comment Letter to Wyoming at 3.
[79] Comment Letter to Wyoming at 3.

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- Marble Mountain Wilderness Area
- Minarets Wilderness Area
- Mokelumne Wilderness Area
- Pinnacles Wilderness Area
- Point Reyes Wilderness Area
- Redwood National Park
- San Gabriel Wilderness Area
- San Gorgonio Wilderness Area
- San Jacinto Wilderness Area
- San Rafael Wilderness Area
- Sequoia National Park
- South Warner Wilderness Area
- Thousand Lakes Wilderness Area
- Ventana Wilderness Area
- Yolla Bolly-Middle Eel Wilderness Area
- Yosemite National Park

a. Arizona

Arizona unjustifiably rejected control measures that should have been found to satisfy a Four-Factor Analysis.[80] In addition, Arizona improperly failed to conduct a Four-Factor Analysis for several sources that emit large amounts of visibility-impairing pollution and that currently have inadequate control measures.

[80] Letter from National Parks Conservation Association and Sierra Club to Elias Toon, Arizona Department of Environmental Quality, "National Parks Conservation Association and Sierra Club's Comments on Arizona Department of Environmental Quality's Draft Regional Haze State Implementation Plan for the Second Implementation Period," (July 14, 2022), https://drive.google.com/drive/folders/1KuQi2oJOdIobTdhKljg1sUqmfaaA_qan.

Arizona, should be addressed by EPA in a stand-alone state action as distinct from other states and regions.

Table 19. Priority Sources in Arizona.

Facility Name	Description	NOx (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Asarco LLC - Hayden Smelter*	Nonferrous Metal (except Aluminum) Smelting	46	20,499	3,801
Tucson Electric Power Co – Springerville*	Fossil Fuel Electric Power Generation	5,742	7,229	2,219
Freeport Mcmoran Miami Smelter*	Nonferrous Metal (except Aluminum) Smelting	173	3,930	977
APS - Cholla Power Plant*	Fossil Fuel Electric Power Generation	3,095	1,518	858
Chemical Lime Nelson Plant	Lime Manufacturing	1,367	1,678	481
Calportland-Rillito Cement Plant (APCC)	Cement Manufacturing	2,167	5	477
Freeport - Mcmoran Morenci Inc.	Copper Ore and Nickel Ore Mining	103	1	223
Coronado Generating Plant*	Fossil Fuel Electric Power Generation	1,831	87	218
Irvington*	Electric Power Generation	900	18	97
EPNG - Williams Compressor Station*	Pipeline Transportation of Natural Gas	902	2	76
EPNG - Willcox Compressor Station*	Pipeline Transportation of Natural Gas	283	1	21

EJ Arizona (from follow up letter to EPA Region 9)[81]

Although thousands of Arizonans are negatively impacted by sources of visibility-impairing pollution, including those noted above, the Arizona Department

[81] Letter from National Parks Conservation Association, Sierra Club, and Earthjustice to Martha Guzman Aceves, Regional Administrator, EPA Region 9, regarding environmental justice considerations at a localized level around key sources of haze pollution in Arizona and California,

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of Environmental Quality (ADEQ) entirely ignored the environmental justice and equity impacts of its draft SIP for the second implementation period. Tribal communities live closer than anyone else to Arizona's top two biggest pollution sources – the Hayden Smelter and Tucson Electric Power's Springerville coal plant. ADEQ should have considered both the environmental justice and equity impacts, as well as the benefits to be gained for environmental justice and the Class I areas.

b. California

California impermissibly exempted all but one stationary source from the CAA's Four-Factor Analysis, deferring to future action by local air agencies.[82] EPA's final action for California must ensure that its sources achieve reductions that will assure reasonable progress in the second round at the 29 California Class I areas and those Class I areas affected by the state's emissions. Despite the thousands of tons of controllable pollution from California's stationary sources including oil and gas refineries, cement kilns, and manufacturing plants, among others, and the many opportunities for reasonable progress controls, California improperly concluded that almost no new reductions in pollution are warranted and failed to properly analyze potential controls using the RHR's Four-Factor Analysis.[83] Instead, the State asserted that existing and yet-to-be-adopted regulations were enough.[84] While, California focused only on one pollutant – NO_X – listing four existing and possible future mobile source regulations that would reduce NO_X emissions statewide by 14,600 tons of NO_X per year by 2028,[85] we commend the state for assessing and quantifying mobile source emissions reductions that will benefit visibility. However, that alone does not negate the need to address all other source sector visibility impairing pollution.

EJ California (from follow up letter to EPA Region 9)[86]

California has elevated environmental justice markers statewide based on demographics showing higher-than-national levels of persons of color, as well as

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(Aug. 10, 2022), https://drive.google.com/file/d/18OSiAkRODVz3ulSvN_SrL317IT6NGFA0/view?ts=633b291c.

[82] Letter from National Parks Conservation Association, Sierra Club, and Coalition to Protect America's National Parks to Liane Randolph, Chair, California Air Resources Board, "Conservation Organizations' Comments on California's Proposed State Implementation Plan Regional Haze Round Two," (June 13, 2022), https://drive.google.com/drive/folders/1qy_eRILqmkqyOA9xLBV-O7wqtmjYaJaw.

[83] Comment Letter to California at 4-5.

[84] Comment Letter to California at 5.

[85] Comment Letter to California at 5.

[86] Letter from National Parks Conservation Association, Sierra Club, and Earthjustice to Martha Guzman Aceves, Regional Administrator, EPA Region 9, regarding environmental justice considerations at a localized level around key sources of haze pollution in Arizona and California, (Aug. 10, 2022), https://drive.google.com/file/d/18OSiAkRODVz3ulSvN_SrL317IT6NGFA0/view?ts=633b291c.

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numerous low-income communities located near facilities emitting haze pollution. For example, air pollution poses a significant burden for millions of residents living within the greater Los Angeles and the San Joaquin Valley areas, among others. Communities such as Los Angeles, Long Beach, Bakersfield, and Fresno regularly experience ozone and $PM_{2.5}$ levels that exceed all other areas in the country. The cities in the United States that are most affected by year-round particle pollution are all in California, with Bakersfield topping the list, followed by the Fresno-Madera-Hanford area, Visalia, the San Jose-San Francisco-Oakland area, and Los Angeles.[87] About 20.3 million people live in these areas. Sadly, California failed to adequately consider the environmental justice co-benefits of haze emission reductions from the facilities harming both people and parks from the pollution.

Table 20. Priority Sources in California.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Cemex California Cement LLC*	Cement Manufacturing	5,420	569	1,247
Twenty Palms MCAGCC	National Security	78	2	939
Mitsubishi Cement Corporation*	Cement Manufacturing	1,944	344	481
Shell Martinez Refinery*	Petroleum Refineries	916	1,155	323
Lehigh Southwest Cement Company*	Cement Manufacturing	1,208	1,393	269
California Portland Cement Co.*	Cement Manufacturing	1,531	502	266
Searles Valley Mineral*	Potash, Soda, and Borate Mineral Mining	1,517	146	201
CalPortland Oro Grande	Cement Manufacturing	1,141	8	169
Phillips 66 Carbon Plant*	All Other Petroleum and Coal Products	360	1,464	168
Chevron Products Company	Petroleum Refineries	737	374	167
Torrance Refining Company LLC	Petroleum Refineries	924	242	96

[87] American Lung Association, State of the Air: 2022, https://www.lung.org/research/sota/city-rankings/most-polluted-cities .

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Tesoro Refining & Marketing Co, LLC*	Petroleum Refineries	661	339	95
Chevron Products Co.	Petroleum Refineries	729	282	87
Tesoro Refining and Marketing Co, LLC*	Petroleum Refineries	749	175	81
Valero Refining Company - California	Petroleum Refineries	1,013	95	72
Lehigh Southwest Cement Company*	Cement Manufacturing	603	8	59
Tesoro Refining & Marketing Company, LLC	Petroleum Refineries	360	344	50
US Army National Training Ctr.	National Security	44	0	41
Phillips 66 Company/Los Angeles Refinery*	Petroleum Refineries	391	241	39
Phillips 66 Co/La Refinery Wilmington Pl*	Petroleum Refineries	471	109	38
Wheelabrator Shasta E.C.I.	Hydroelectric Power Generation	536	2	37
Vitro Flat Glass, LLC	Flat Glass Manufacturing	385	59	36
Tesoro Ref & Mktg Co, LLC, Calciner	Office Administrative Services	261	376	32
Guardian Industries Corp	Flat Glass Manufacturing	313	147	29
Collins Pine Co	Sawmills	129	4	28
Tamco	Iron and Steel Mills and Ferroalloy	108	29	20
Cemex - River Plant	Cement Manufacturing	76	5	20
Burney Forest Products	Wood Container and Pallet Manufacturing	190	4	19
Phillips 66 Company - San Francisco Refinery*	Petroleum Refineries	218	368	16
Sierra Pacific Ind. - Burney	Cut Stock, Resawing Lumber, and Planing	157	2	16

Ultramar Inc	Petroleum Refineries	278	125	15

6. EPA Region 10

a. Washington

We identified one state in Region 10 – Washington – where there are unique issues and emissions reductions needed to assure reasonable progress is made in the second round from oil refineries, glass plants and pulp and paper mills.[88] Despite Washington finding reasonable controls for numerous sources, it decided to delay controls to the next planning period. Moreover, the State failed to evaluate cost-effective and achievable emission reductions for all of Washington's largest sources. Finally, Washington failed 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 CAA's visibility goal.

[88] Letter from National Parks Conservation Association, Sierra Club, Alpine Lakes Protection Society, North Cascades Conservation Council, Olympic Park Advocates, Puget Soundkeeper Alliance, Stand.earth, Waste Action Project, to Linda Kildahl, Washington Department of Ecology, Air Quality Program, "Conservation Organizations' Comments Submitted on Washington's Proposed Regional Haze State Implementation Plan for 2018 to 2028," (Nov. 23, 2021), https://drive.google.com/file/d/19_6Z8gmTdss8yeUak4CopkEiGuIQOIF_/view?usp=sharing, with enclosure, Victoria Stamper, "Review and Comments on Washington Department of Ecology's Draft Regional Haze Plan for the Second Implementation Period: Long Term Strategy and Four-Factor Analysis of Controls," (Nov. 19, 2021), https://drive.google.com/file/d/1Iqt-K47Nq_F2SRN3AFC_G6ApWW5EwC9T/view?usp=sharing; *see also*, Letter from National Parks Conservation Association, Sierra Club, the Duwamish River Cleanup Coalition, Puget Soundkeeper Alliance, Waste Action Project, to Philip Gent, Air Quality Program, Department of Ecology, "NPCA Comments Submitted for Informal comment period: Regional Haze SIP Revision - 2nd 10-Year Plan," (Feb. 16, 2021, Submitted with correction on Feb. 19, 2021), https://drive.google.com/file/d/1MbrGgMg5M7yPM-m5yo4OH9SIpGvljTnj/view?usp=sharing, including enclosure, Klafka, Steven, P.E. BCEE, Environmental Engineer, Wingra Engineering, S.C., "The Four-Factor Reasonable Progress Analysis for Ardagh Glass," (Jan. 27, 2021), https://drive.google.com/file/d/1xXsx07y4z4K6BIgeJH0rLP7L0Ha_Iuwn/view?usp=sharing; *see also*, Letter submitted on behalf of National Parks Conservation Association, by Laumann Legal, LLC., to Liem Nguyen, Judy Schwieters, Department of Ecology, "NPCA Comments on Draft Air Quality Agreed Orders for Alcoa Wenatchee Agreed Order 18100 (Chelan County), Intalco Agreed Order 18216 (Whatcom County)," (Dec. 3, 2020), https://drive.google.com/file/d/1Jx83tnMmjVnKvzciZ2wo6Qi7a7iZIUx2/view?usp=sharing.

Table 21. Priority Sources in Washington.

Facility Name	Description	NO_X (tons)	SO_2 (tons)	Cumulative Q/d >=5 within 1,000 km
Alcoa Primary Metals Intalco Works	Alumina Refining and Primary Aluminum Product	190	3,987	497
Weyerhaeuser Nr Company	Pulp, Paper, and Paperboard Mills	1,949	390	237
Bp Cherry Point Refinery	Petroleum Refineries	1,918	808	195
Tesoro Northwest Company	Petroleum Refineries	1,971	80	164
Westrock Tacoma Mill	Pulp, Paper, and Paperboard Mills	1,121	190	148
Ash Grove Cement Co, E Marginal*	Cement Manufacturing	1,368	69	136
Boise Paper	Paperboard Mills	637	885	120
DBA Kapstone Kraft	Paperboard Mills	1,041	198	104
Shell Puget Sound Refinery	Petroleum Refineries	1,054	225	102
Ardagh Glass*	Glass Container Manufacturing	153	99	12

Conclusion

Once a decade every state in the country is obligated to consider the visibility impairing pollution in its borders and determine what they will do to curb it to improve air quality at our nation's Class I public lands. States are to come together with their neighbors, with Federal Land Managers, Regional Planning Organizations, EPA, other interested stakeholders and engage in a public process that has one aim: restoring natural visibility conditions. It's no secret that the very pollution that degrades color and clarity in our national parks and wilderness areas is the very pollution that devastates communities long overburdened by the very same sources.

With two-thirds of states having submitted regional haze plans, most of which are laden with disregard for our country's public lands and legal requirements, EPA must step in and act. We would welcome the opportunity to discuss the above prioritization analysis and approach at your earliest convenience.

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Sincerely,

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Exhibit 1

Arizona

Letter from National Parks Conservation Association and Sierra Club to Elias Toon, Arizona Department of Environmental Quality, "National Parks Conservation Association and Sierra Club's Comments on Arizona Department of Environmental Quality's Draft Regional Haze State Implementation Plan for the Second Implementation Period," (July 14, 2022), https://drive.google.com/drive/folders/1KuQi2oJOdIobTdhKljg1sUqmfaaA_qan.

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California

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Florida

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Georgia

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Indiana

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Missouri

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Louisiana

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North Carolina

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Wyoming

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Regional Environmental Justice Letters

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Letter from National Parks Conservation Association, Utah Physicians for a Healthy Environment, Sierra Club, o2 Utah, Healthy Environment Alliance of Utah, Montana Environmental Information Center, Powder River Basin Resource Council, Dakota Resource Council, Wyoming Wilderness Association, to K.C. Becker, Regional Administrator, EPA Region 8, regarding localized environmental justice analyses where NPCA identified 53 industrial facilities in ND, MT, UT, and WY that are degrading visibility in Class I areas, (Sept. 28, 2022), https://drive.google.com/file/d/1sGK1iXO1YIOoYzy8HQ1HuGv9flIIvMXO/view?ts=633b292d.

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Exhibit 2

January 21, 2022

Joseph M. Goffman
Principal Deputy Assistant Administrator
Office of Air and Radiation
Environmental Protection Agency
1200 Pennsylvania Ave NW
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Dear Principal Deputy Assistant Administrator Goffman:

National Parks Conservation Association, Sierra Club and Earthjustice write regarding several issues in need of EPA's immediate attention and direction to states for the second regional haze planning period. While implementation of the regional haze program has resulted in significant progress to date, our nation's treasured Class I areas from Great Smoky Mountains to Yosemite National Park continue to be marred by air pollution. Indeed, **not a single Class I area has achieved the Clean Air Act's goal of natural visibility conditions**. And the same sources of pollution that harm our public lands are the very sources responsible for tragic health impacts and the climate crisis; therefore, we see timely emissions reductions through state regional haze implementation plans as being of paramount importance.

This letter highlights instances where numerous state air quality agencies have failed to abide by federal requirements to reduce haze causing emissions in their regional haze plans. Consequently, the haze SIPs submitted to EPA to date widely miss the mark of satisfying the obligation to make reasonable progress towards restoring natural conditions. Accountability to cut continued, avoidable emissions from hundreds of fossil fuel-fired power plants, oil refineries, cement kilns, and other sources is on the line. Also at risk are fenceline communities downwind of pollution, along with the vistas and ecosystems of our public lands set aside for posterity. Our organizations demand that EPA prioritize acting on state

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haze plans immediately to deliver on this 45 year-old Congressional mandate without delay.[1]

Collectively, our organizations and others ("Conservation Organizations") have reviewed and commented on nearly every regional haze state implementation plan ("RH SIPs," "SIPs") proposed thus far—covering 38% of the states—including the following:[2]

Colorado[i]	Louisiana[ii]	New York[iii]	Tennessee[iv]
Connecticut[v]	Massachusetts[vi]	North Carolina[vii]	Texas[viii]
Delaware[ix]	Michigan[x]	Ohio[xi]	Washington[xii]
Florida[xiii]	New Hampshire[xiv]	Oregon[xv]	West Virginia[xvi]
Indiana[xvii]	New Jersey[xviii]	South Carolina[xix]	

In addition to commenting in formal public comment periods, Conservation Organizations also provided early analyses to states, identifying sources of visibility impairing pollution, articulating problems with state reliance on regional organizations' work products,[3, xx] requesting states to factor in environmental justice;[4] and putting forth expert analysis regarding control technologies and related developments applicable to many regional haze SIPs.[5] We have identified

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[1] EPA's immediate attention is also required to ensure SIP consistency across states. 40 C.F.R. part 56.

[2] The links provided here and below are to the comment letters sent to each states. In some instances several comment letters have been submitted to a state. For the complete citations for the Conservation Organizations' comment letters and expert reports submitted to the states identified here and below please see the Endnotes starting on page 63.

[3] *See e.g.*, 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), https://drive.google.com/file/d/1e0KAljsvNm3Wmj3HRVeyKvafaI-dza0c/view?usp=sharing; *see also* D. Howard Gebhart, "Technical Review of VISTAS Visibility Modeling for the Second Round of Regional Haze State Implementation Plans" (May 2021) ("Gebhart VISTAS Review Report"), including Attachment "Gebhart Resume Final 2020," https://drive.google.com/file/d/1aMKbgtFxJqvrEVxeSOy96CNvoQ0xhUUv/view?usp=sharing; *see also* D. Howard Gebhart, "Technical Review of North Carolina Regional Haze State Implementation Plan Second Round of Regional Haze State Implementation Plans Supplemental Report" (Oct. 2021), https://drive.google.com/file/d/1UYHgQQAx5xKhItnEuQ3fkFpOk4EtMZ_E/view?usp=sharing.

[4] *See infra* Section 5.a.

[5] Vicki Stamper, Megan Williams, " OIL AND GAS SECTOR REASONABLE PROGRESS FOUR-FACTOR ANALYSIS OF CONTROLS FOR FIVE SOURCE CATEGORIES: NATURAL GAS-FIRED ENGINES, NATURAL GAS-FIRED TURBINES, DIESEL-FIRED ENGINES, NATURAL GAS-FIRED HEATERS AND BOILERS, FLARING AND INCINERATION, (March 6, 2020), https://drive.google.com/file/d/1RGWYqXKcfyWzBgxuRXzSiSaCZ9PWDH3y/view?usp=sharing; *see*

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numerous common "approvability" issues based on our reviews and detailed in our comment letters, which for most SIPs were supported by reports prepared by expert engineers and modelers.

The seven states where we provided preliminary comments include:

Arizona[xxi]	New Mexico[xxii]	Utah[xxiii]	Pennsylvania[xxiv]
Nebraska[xxv]	North Dakota[xxvi]	Virginia[xxvii]	

We support a continuation of the Obama Administration's successful efforts to implement the haze program, which has thus far resulted in: emission reductions from over 150 coal plants units, including more than 58 retirements; elimination of more than 132 million metric tons of climate pollution; and a reduction of 303,950 tons reduced NOx and SO_2 combined. In order to continue on this path, EPA must direct states to issue SIPs that are compliant with legal requirements and match the agency's expectations as specified in its "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period"[6] ("July 2021 Clarification Memo"). EPA must ensure consistency across SIPs. Where states fail to fulfill such obligations, EPA must be at the ready to issue Regional Haze Federal Implementation Plans ("FIPs") for much of the country.

As discussed in this letter, nearly all the SIPs reviewed thus far ignore EPA's July 2021 Clarification Memo while either cherry-picking from off-ramps in "Guidance on Regional Haze State Implementation Plans for the Second

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also Klafka, Steven, P.E. BCEE, Environmental Engineer, Wingra Engineering, S.C., "The Four-Factor Reasonable Progress Analysis for Ardagh Glass," (Jan. 27, 2021), https://drive.google.com/file/d/1xXsx07y4z4K6BIgeJH0rLP7L0Ha_Iuwn/view?usp=sharing; *see also* Klafka, Steve, Wingra Engineering, Holcim – Florence Cement Plant Florence, Colorado Four-Factor Reasonable Progress Analysis (Sept. 30, 2021), https://drive.google.com/file/d/1C0DHVM84YoM-a-xn3LILDB5nK8J4rKDq/view?usp=sharing; *see also* Klafka, Steve, Wingra Engineering, GCC Rio Grande – Pueblo Cement Plant, Four-Factor Reasonable Progress Analysis (Sept. 23, 2021), https://drive.google.com/file/d/1W-EAjYr_zL9Ucj6t2PAtCEuqAVP7flc9/view?usp=sharing.

[6] Memorandum from Peter Tsirigotis, Director, Office of Air Quality Planning and Standards, to Regional Air Division Directors Regions 1-10, "Clarifications Regarding Regional Haze State Implementation Plans for the Second Implementation Period," (July 9, 2019), https://www.epa.gov/visibility/clarifications-regarding-regional-haze-state-implementation-plans-second-implementation. ("July 2021 Clarification Memo").

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Implementation Period"[7] ("2019 Guidance") or lack a reasoned basis and support for SIP determinations.

The five major areas where issues arise in the RH SIPs are as follows:

Five Major Areas Where Issues Arise in State RH SIPs

1. Source selection precludes significant emissions and sources from consideration in a Four Factor Analysis .
2. Unjustifiable dismissal of emission reduction measures that satisfy the Four-Factor Analyses.
3. Reasonable progress determinations do not comport with the legal requirements.
4. Application of *unique* approaches not provided for under the Act and RHR.
5. Failure to take into consideration the Administration's priorities.

We strongly support the direction articulated in the July 2021 Clarification Memo and are committed to ensuring it results in state plans that deliver meaningful reductions. The following discussion highlights the myriad of issues we've identified in these five major areas – and commented on – in the state RH SIPs reviewed to date.

Note: This letter cites numerous examples from our comment letters where these issues arise. The examples cited are from representative SIPs and are not intended to provide a comprehensive list of the issues raised in all our comment letters. The first time a referenced document is mentioned we provide a link to download the document. Additionally, referenced documents are available to download here: https://drive.google.com/drive/folders/1aE2Yz7-Tl6M1ZNasaYKsBDgsJa22de3S?usp=sharing.

[7] Memorandum from Peter Tsirigotis, Director at EPA Office of Air Quality Planning and Standards, to EPA Air Division Directors Regions 1-10, "Guidance on Regional Haze State Implementation Plans for the Second Implementation Period," EPA-457/B-19-003 (Aug. 2019), https://www.epa.gov/sites/production/files/2019-08/documents/8-20-2019_-_regional_haze_guidance_final_guidance.pdf. ("2019 Guidance").

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The Five Major Areas in Need of EPA's Immediate Attention

1. Source screening excludes significant emissions from sources of visibility impairing pollution.

States must identify sources for the Four-Factor Analysis and the screening threshold a state applies must ensure that the threshold is low enough to bring in most sources harming a Class I area; a state must not simply eliminate evaluations of all or most sources for measures to reduce visibility impairing pollution. EPA's July 2021 Clarification Memo emphasizes this requirement explaining that:

> [W]hile 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.[8]

Contrary to the requirement to meaningfully reduce, which requires that states *comprehensively* identify sources of human-caused visibility-impairing emissions across source categories, as discussed below, the proposed SIPs use various methods to circumvent this requirement.

a. *Source retirements must be enforceable in the SIP.*

The Act, the RHR, and EPA guidance and memorandum all make clear that if a state opts to exempt sources from further control analysis based on a planned retirement schedule, the source must "have an enforceable commitment to be retired or replaced by 2028."[9] The Act requires that "[e]ach state implementation plan . . . shall" include "enforceable limitations and other control measures" as

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[8] July 2021 Clarification Memo at 3.

[9] 2019 Guidance at 22; The Clean Air Act does not define the phrase "remaining useful life." However, EPA, in regulations and guidance, has clarified the meaning of the phrase. EPA has consistently stated that the potential retirement of a facility can be used to shorten a source's remaining useful life only if the retirement is federally enforceable. Thus, in order to affect the remaining useful life, a retirement commitment must be included in a pre-existing document that can be enforced in federal court, such as a consent decree entered by a federal court, or a state must incorporate the retirement date into its SIP. If a potential retirement is not federally enforceable, it cannot be relied upon to shorten the remaining useful life of a source; *see e.g.*, 83 Fed. Reg. 62,204, 62,232 (Nov. 30, 2018) ("We are proposing to agree with Arkansas' cost analysis for dry scrubbers and switching to low sulfur coal for Independence Units 1 and 2, and with the state's decision to assume a 30-year capital cost recovery period in the cost analysis. It is appropriate to assume a 30-year capital cost recovery period in the cost analysis since Entergy's plans to cease coal combustion at the Independence facility are not state or federally-enforceable."); *see also* 83 Fed. Reg. 43,586, 43,604 (Aug. 27, 2018) (Considering the retirement of certain units where there was evidence that the units had actually been retired at the time of the rulemaking and that the plant had requested cancellation of its air permit).

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necessary to "meet the applicable requirements" of the Act.[10] The RHR similarly requires each state to include "enforceable emission limitations" as necessary to ensure reasonable progress toward the national visibility goal.[11] Indeed, remaining useful life is only one of the four statutory factors that a state must consider when selecting the sources for which it will determine what control measures are necessary to make reasonable progress.[12] Allowing states to avoid a four-factor analysis based on alleged intent to retire would render the other statutory factors meaningless and violate the requirements of the Regional Haze Rule.[13] Therefore, where the state 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 unnecessary to ensure reasonable progress, then the state "must" make those parameters or assumptions into enforceable limitations.[14]

Despite these requirements, states exempt electric generating units ("EGUs") and other sources from Four-Factor Analyses based on *any* announcement of retirement. For the EGUs in Indiana, North Carolina and Michigan, the SIPs exempt EGUs and other sources from Four-Factor Analyses based on any announcement of retirement.[15] Additionally, in Tennessee, the State revised its 2028 projected SO2 emissions for Kingston from 1,886 to 424 tons and its 2028 projected NOx emissions from 1,687 to 380 tons based solely on TVA's Strategic Power Supply Plan projections, without including enforceable emission limitations in the SIP.[16] Furthermore, the Centralia power plant, which was required to cease coal-firing for BART and for which no emissions were assumed in the 2028 RPGs,

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[10] 42 U.S.C. § 7410(a)(2)(A).
[11] *See* 40 C.F.R. § 51.308(f)(2) ("The long-term strategy must include the enforceable emissions limitations, compliance schedules, and other measures that are necessary to make reasonable progress, as determined pursuant to (f)(2)(i) through (iv).").
[12] *Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) ("[A]n agency rule would be arbitrary and capricious if the agency has . . . entirely failed to consider an important aspect of the problem."); *Pub. Citizen v. Fed. Motor Carrier Safety Admin.*, 374 F.3d 1209, 1216 (D.C. Cir. 2004) ("A statutorily mandated factor, by definition, is an important aspect of any issue before an administrative agency, as it is for Congress in the first instance to define the appropriate scope of an agency's mission.").
[13] The United States Court of Appeals for the Fifth Circuit found that EPA must consider statutory factors listed in a similar provision of the Clean Water Act when revising best available technology ("BAT") limits. *See Southwestern Elec. Power Co. v. EPA*, 920 F.3d 999, 1026-27 (5th Cir. 2019).
[14] 40 C.F.R. § 51.308(f)(2); *see also* 2019 Guidance at 34.
[15] *See e.g.,* Comment Letter to Indiana at 11, 14-17; Comment Letter to North Carolina at 14-26 (*i.e.*, Duke Energy Carolinas, LLC, Marshall Steam Station; Duke Energy Carolinas, LLC, Belews Creek Steam Station; Duke Energy Progress, Roxboro Steam Electric Plant; Duke Energy Carolinas, LLC, Cliffside Steam Station Facility); Comment Letter to Michigan at 9-10 (EGLE Erroneously Relied on Remaining Useful Life Without Enforceable Retirement Dates for the following facilities: St. Clair; Belle River; Trenton Channel; Erickson; JH Campbell; and Karn Units 3 & 4).
[16] Comment Letter to Tennessee at 21-22.

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recently got a BART order amendment that provides the ability to repower to gas,[17] again without including enforceable emission limitations in the SIP.

EPA must ensure enforceable retirements are locked into the haze SIP for any EGU or other source where a state relies on reductions for reasonable progress or its Long-Term Strategy. Only enforceable retirements may alter the remaining useful life. EPA must require that states subject sources that intend to retire to a Four-Factor Analysis if a state selects the source for analysis of emission control measures.

b. ***A prior BART determination (or its equivalent) must not excuse a source from reasonable progress analysis.***

As EPA's 2019 Guidance explains, the RHR "anticipates the re-assessment of BART-eligible sources under the reasonable progress Rule provisions,"[18] and further instructs state SIP development by explaining that:

> [S]tates may not categorically exclude all BART-eligible sources, or all sources that installed BART controls, as candidates for selection for analysis of control measures.[19]

In SIPs, several states assert that where EGUs (and primary copper smelters in Arizona)[20] are BART sources they need *not* be reviewed for reasonable progress. For example, the following states have exempted BART sources: Indiana; South Carolina; Michigan; West Virginia, Texas.[21] Similarly, sources subject to the Clean Air Interstate Rule (CAIR) and its successor, the Cross-State Air Pollution Rule

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[17] Comment Letter to Washington - November 2021 at 25-26.

[18] 2019 Guidance at 25, citing 40 C.F.R. § 51.308(e)(5) ("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 ... BART, BART-eligible sources will be subject to the requirements of paragraphs (d) and (f) of this section.").

[19] 2019 Guidance at 25.

[20] Preliminary Comment Letter to Arizona at 6-7 (*i.e.*, ASARCO LLC - Hayden Smelter and the Freeport Mcmoran Miami Smelter).

[21] *See e.g.*, Comment Letter to Indiana 16-19 (R.S. Nelson); *see also* Comment Letter to South Carolina at 30-32 (It appears the State may have exempted a sources from RP that completed BART demonstrations despite the fact that the State did not require any BART controls: Dominion Energy Wateree Generating Station); *see also* Comment Letter to Michigan at 15 (Tilden Mine), 16 (St. Mary's Cement Kiln); *see also* West Virginia Comment Letter at 87, FN 386 (commenting on Proposed SIP at 114).

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(CSAPR) are not exempt from reasonable progress review.[22] EPA must reemphasize that BART does not excuse source from a reasonable progress evaluation. [23]

c. ***States must not ignore pollutants by focusing on only the dominant pollutant.***

EPA's expectation regarding the pollutants considered for source selection and control strategy analysis for the second planning period is that "each state will analyze sulfur dioxide (SO_2) and nitrogen oxide (NOx) in selecting sources and determining control measures."[24] Moreover, "[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."[25]

Examples of states that are focusing on the dominant pollutant and ignoring the others include VISTAS states (*e.g.*, Tennessee,[26] West Virginia,[27] North Carolina,[28] Florida,[29] South Carolina[30]), which disregarded NOx emissions because they asserted SO_2 is the dominant visibility impairing pollutant. As a consequence, VISTAS states routinely ignored cost-effective opportunities for reducing NOx from EGUs with underperforming SCR and SNCR systems, including from EGUs like Marshall Steam Stations units 1, 2 and 4[31] and pulp and paper plants like Blue

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[22] Comment Letter to Indiana at 39 (Gibson and Indiana Michigan Power); Comment Letter to West Virginia at 34-35 (Participation in CSAPR, MATS, and/or installation of BART is not a shield against reasonable progress or Four-Factor Analyses for the following EGU sources: Harrison, Fort Martin, Mitchell, and Amos.); *id.* at 39 (Grant Town Power Plant); *id.* at 87 FN386 (commenting that reasonable progress requirements apply to all sources, despite the State SIP that allow an unnamed BART-eligible source that received a permit during the first RH planning period, to also avoid an RP analysis).

[23] Although many states addressed the Clean Air Act's BART requirements in their initial regional haze plans, EPA's 2017 revisions to the Regional Haze Rule 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. 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)").

[24] July 2021 Clarification Memo at 4, citing 2019 Guidance at 12.

[25] July 2021 Clarification Memo at 4-5.

[26] Comment Letter to Tennessee at 19-20, 28 (TDEC Impermissibly Exempts Eastman's NOx Emissions from the Required Four-Factor Analysis), 62 (TDEC Ignores and the SIP Lacks Controls for Nitrate Contributions from Point Sources at Class I Areas).

[27] Comment Letter to West Virginia at 19, 22-23, 25, 29-30, 42, 84-85.

[28] Comment Letter to North Carolina at 38.

[29] Comment Letter to Florida at 31.

[30] Comment Letter to South Carolina at 22, 24, 35-36 (DHEC Must Subject South Carolina EGUs to NOx Four-Factor Analyses), 74-75.

[31] Comment Letter to North Carolina at 14-15.

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Ridge.[32] States also attempt to disregard pollutants, sources and other requirements based on a purported lack of resources.[33]

EPA must ensure that regional haze plans include an analysis of both SO_2 and NOx emissions.

d. ***States must analyze area and mobile sources, and not solely focus on major sources.***

The RHR requires that states consider "major and minor stationary sources or groups of sources, mobile sources, and area sources."[34] Indeed, "regional haze" is defined in the RHR to explicitly include these sources:

> Visibility impairment that is caused by the emission of air pollutants from numerous anthropogenic sources located over a wide geographic area. Such sources include, but are not limited to, major and *minor stationary sources, mobile sources, and area sources.*[35]

Several states consider only major point sources and ignore area and mobile sources. This approach is particularly problematic where the area and mobile source categories make up most if not all the visibility impairment. For example, in many states, emissions from oil and gas development are a significant threat to visibility

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[32] Comment Letter to North Carolina at 24-25.

[33] Comment Letter to South Carolina at 75 (DHEC'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. 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. 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 also,* 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). Alternatively, if DHEC finalizes its proposed determination that it lacks the resources necessary to develop a complete [and potentially approvable] SIP, then it must follow in the footsteps of Montana and notify EPA that South Carolina will defer to EPA's development and implementation a regional haze FIP on their behalf. 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).); *see also* Comment Letter to Tennessee at 63; *see also* Comment Letter to West Virginia at 86.

[34] 40 C.F.R. § 51.308(f)(2)(i) ("The State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources.").

[35] 40 C.F.R. § 51.301 (emphasis added).

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and air quality in Class I areas.[36] Such development often occurs on federal lands that are near to or abut Class I areas. For example, oil and gas development contributes to visibility impairment in public lands in Utah and Colorado where the NPS found that oil and gas development and leasing in the two states would "cause visibility impairment" at Dinosaur National Monument.[37] Additionally, NPS recently found impacts from oil and gas emissions at Carlsbad Caverns and San Pedro Parks Wilderness Class I areas, among others, based on 2008 emissions inventories—which do not capture more recent growth—and include only a portion of emissions from the production process.[38] States that have ignored these important source categories include: Texas, which outright ignored oil and gas sources;[39] Utah, which is also ignoring oil and gas sources suggesting it will address emissions later via an ozone SIP;[40] and Florida, which despite high cost-effective green harvesting techniques that could reduce emissions on environmental justice communities and Class I areas, did not evaluate emissions from burning sugar cane fields.[41] On a positive note, California is the one state that is assessing emissions from heavy duty trucks through a Four-Factor Analysis.

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[36] Examples of Class I areas currently or potentially impacted by oil and gas emissions include: Theodore Roosevelt and Lostwoods (Bakken Shale in eastern Montana and North Dakota); Wind Cave and Badlands (Powder River Basin in northeast Wyoming); Bridger and Fitzpatrick Wilderness Areas (Pinedale Anticline and Jonah Fields in western Wyoming); Mesa Verde (North and South San Juan Basin); Carlsbad Caverns and Guadalupe Mountains (Permian Basin in southeastern New Mexico and western Texas); and Canyonlands and Arches (Uintah, Paradox, and Piceance Basins in Utah and Colorado).

[37] *See* e.g., Memorandum from Mark A. Foust, Superintendent, Dinosaur National Monument, National Park Service, to Ester McCullough, Field Office Manager, BLM Vernal Field Office, "NPS Comments on the Environmental Assessment for the December 2017 Oil and Gas Sale (DOI-BLM-UT-GO10-2017-0028-EA)," at 2-3 (Aug. 22, 2017), https://eplanning.blm.gov/public_projects/nepa/80165/119058/145306/Dinosaur_National_Monument_Comment_Letter.pdf (last visited Jan. 21, 2022); Krish Vijayaraghavan *et al.*, Ramboll Environ US Corporation, "Colorado Air Resources Management Modeling Study (CARMMS): 2025 CAMx Modeling Results for the High, Low and Medium Oil and Gas Development Scenarios," 05-35899 (Aug. 2017) (prepared for BLM), https://www.blm.gov/documents/colorado/public-room/data (last visited Jan. 21, 2022).

[38] Thompson *et al.*, Modeling to Evaluate Contribution of Oil and Gas Emissions to Air Pollution, 67 Journal of the Air & Waste Management Association Vol. 4, at 455 (March 10, 2017. 2016), https://doi.org/10.1080/10962247.2016.1251508 (last visited Jan. 21, 2022); *see also id.* Figures and data, https://www.tandfonline.com/doi/suppl/10.1080/10962247.2016.1251508?scroll=top .

[39] Comment Letter to Texas at 24-29 ("Texas Ignores All Area Sources in its Four-Factor Analyses," the emissions from the oil and gas sector not considered by Texas include 17,293 of NOx and 8,322 SO_2.).

[40] NPCA raised its concern regarding the need for Four-Factor Analyses and control of emissions from oil and gas to Utah and EPA on several occasions, nevertheless, Utah Division of Air Quality (DAQ) indicates that it does not plan to address emissions from the oil and gas sector in its Regional Haze SIP, instead deferring to a future ozone SIP. NPCA and Utah DAQ Meetings (February 18, 2020 and May 28, 2020); NPCA and EPA Region 8 Meeting (July 7, 2021).

[41] Comment Letter to Florida at 23, 24, 25.

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In states where area and mobile source sectors contribute to much of the visibility impairing pollutions, we urge EPA to direct that those states ensure emissions from those source sectors are included in the Four-Factor Analyses and that the SIP contain enforceable emission limitations.

e. ***Sources with permits are not exempt from the Act's reasonable progress requirements.***

The reasonable progress requirements apply to all sources and a permit to construct does not exempt a source from the regional haze program. If a source is found subject to the required reasonable progress Four-Factor Analysis as a result of a state's reasonable progress screening process, the state must ensure the Analysis is conducted. Neither the Act nor EPA's rules provide an "off-ramp" for a source in this situation. Several states have exempted sources because of recently issued permits.[42]

f. ***States must not set thresholds that do not capture sufficient sources and emissions.***

The RHR requires each state to submit a long-term strategy that addresses the regional haze visibility impairment resulting from emissions from within that state and for each mandatory Class I Federal area located outside the State that may be affected by emissions from the State.[43] Regarding a state's source selection methodology EPA's Guidance explained:

> Whatever threshold is used, the state must justify why the use of that threshold is a reasonable approach, *i.e.*, why it captures a reasonable set of sources of emissions to assess for determining what measures are necessary to make reasonable progress.[44]

As EPA has further explained:

- [I]t may be difficult to show reasonableness of a threshold set so high that an uncontrolled or lightly controlled source that is one of the largest contributors to anthropogenic light extinction at a Class I area is excluded;[45]

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[42] *See e.g.*, Comment Letter to Washington - November 2021 at 14 (exempting Cardinal FG Winlock Glass Plant from Four-Factor Analysis).
[43] 40 C.F.R. § 51.308(f)(2).
[44] 2019 Guidance at 19, citing 40 C.F.R. § 51.308(f)(2)(i)("The State must 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.").
[45] 2019 Guidance at 19.

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- [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;[46] and
- [A] threshold that excludes a state's largest visibility impairing sources from selection is more likely to be unreasonable.[47]

There are a variety of ways states use high thresholds to screen out sources and emissions. First are the VISTAS states, which used an overly restrictive Area of Influence (AOI) analysis to identify which sources should be Particulate Matter Source Apportionment Technology ("PSAT") tagged, which failed to properly identify all sources contributing to adverse visibility conditions at VISTAS Class I areas.[48] "Most VISTAS states selected an AOI threshold in the range of 2-5% of the overall sulfate and/or nitrate impacts to identify emission sources contributing to visibility impairment. As a result, most states identified six or fewer contributing emission sources through the AOI analysis."[49]

Second, the VISTAS II CAMx modeling relied on a flawed PSAT modeling analysis that applied an outdated 2028 emissions inventory, provided incomplete information on source-specific contributions to visibility impairment, and carried forward known deficiencies in the modeled sulfate projections.[50] VISTAS coupled the flawed PSAT modeling analysis with a recommendation that only those sources which contribute 1% or greater to either the modeled sulfate or nitrate concentrations would be recommended for the Four-Factor Analysis.[51] As a result, VISTAS concluded that only a relatively small group of emission sources would be considered for the Four-Factor Analysis.[52]

Both screening methods used arbitrary, high thresholds that substantially restricted the total number of sources analyzed. NPCA's independent analysis identified 342 sources and NPS identified 256 sources – but VISTAS identified only 33 sources for all 14 states.[53] Many VISTAS states used a 3% AOI threshold for PSAT tagging and a 3% PSAT impact threshold[54] (some like North Carolina used 3% sulfate-only)[55] for the Four-Factor Analyses. These thresholds are arbitrary and unsupported in the SIPs. Lower thresholds would have resulted in many more AOI

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[46] July 2021 Clarification Memo at 3.
[47] July 2021 Clarification Memo at 3.
[48] Gebhart VISTAS Review Report at 2; *see also id.* at 9-14.
[49] Gebhart VISTAS Review Report at 2.
[50] Gebhart VISTAS Review Report at 2; *see also id.* at 9-14.
[51] Gebhart VISTAS Review Report at 2.
[52] Gebhart VISTAS Review Report at 2.
[53] 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), at
[54] *See e.g.*, Comment Letter to Tennessee at 8; *see also* Comment Letter to Florida at 12; *see also* Comment Letter to North Carolina at 14; *see also* West Virginia at 23, 25.
[55] Comment Letter to North Carolina at 6.

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sources being PSAT tagged and many more PSAT-tagged sources being selected for Four-Factor Analyses.

Another example is MANE-VU, which used a 3.0 Mm^{-1} (inverse megameters) single source impact threshold for defining sources to evaluate with a Four-Factor Analysis, which results in an extremely high threshold that omits most sources from evaluation. Many states in the region have relied on this threshold.[56] Connecticut's reliance on the MANE-VU threshold resulted in a threshold that excluded every source in the State from the Four-Factor Analysis requirement,[57] demonstrating the need for states to evaluate and adjust the RPO-created thresholds for each Class I area. Similarly, Massachusetts, relying on MANE-VU's threshold, selected only two sources for Four-Factor Analyses, one of which ceased operation in the first planning period, 2017.[58]

EPA must ensure that screening thresholds are set to capture a significant degree of visibility impairing emissions. The 2016 Proposed Guidance set 80% of

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[56] *See e.g.*, Comment Letter to New Hampshire at ; *see also* Comment Letter to Connecticut at 7, 8; *see also* Comment Letter to Massachusetts at 7, 8; *see also* Comment Letter to New Jersey at 10, 11, 12, 13 (MANE-VU identified only one source in New Jersey state that exceeded its recommended 3.0 Mm-1 extinction threshold: the BL England coal and oil-fired power plant and NJDEP did not conduct a four-factor control analysis for the units at BL England because the units have essentially shut down.); *see also* Comment Letter to New York at 11, 12, 13, 14 (MANE-VU identified two sources in New York state that exceeded its recommended 3.0 Mm-1 extinction threshold: LaFarge Building Materials and Finch Paper. However, NYSDEC did not conduct a four-factor analysis of controls for these sources. Instead, NYSDEC seemed to rely on other programs and/or decisions made to reduce emissions and "their potential max extinction to below the 3.0 Mm-1 threshold." NYSDEC provided no details on these programs or whether such requirements were enforceable, did not quantify emissions reductions, and did not provide any new modeling to verify visibility impacts of these two sources with the reduced emissions.)

[57] Comment Letter to Connecticut at 8-9; *see also id.* at 9 (Based on the Q/d values, it's clear that Connecticut needs to conduct a Four-Factor Analysis for four municipal waste combustion sources to inform its reasonable progress determination, specifically: Wheelabrator Bridgeport LP; CRRA/Mid-Connecticut; Covanta Southeastern CT; and Wheelabrator Lisbon LP.

[58] Comment Letter to Massachusetts at 6 (By relying on the emission sources modeled by MANE-VU, MassDEP identified and selected only two point sources (EGUs) affecting Class I sites (Brayton Point unit 4 and Canal Station unit 1) out of which, Brayton Point, already ceased operations in 2017.); *see also id.* at FN28 ("The Federal Land Managers explained during their consultation with the State that this closure was during the first planning period and not the planning period for the SIP proposed for the second planning period – thus emissions cannot be used to offset emission for the second planning period. Email from Don Shepard, NPS, to Mark Wert (Nov. 23, 2020) ("Since Brayton Point was retired in 2017, i [sic] do not think its closure can be used to offset other emissions during this planning period.").

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emissions,[59] and the FLMs rely on this figure,[60] as have some states (*e.g.*, Oregon[61]). Our organizations submit that 80% is an appropriate metric. EPA should apply the 80% threshold, including in future guidance.

2. States must not unjustifiably dismiss emission reduction measures that, if appropriately assessed, would satisfy the Four-Factor Analysis.

a. States must not assert visibility benefits are too small.

While visibility is the goal of the regional haze program,[62] the reasonable progress Four-Factor Analysis evaluation does not itself incorporate visibility.[63] Because visibility is not one of the four statutory factors, a state cannot rely on visibility impacts to exclude emission reducing measures from sources that otherwise satisfy the four statutory factors. The plain language of the Act clearly bounds the information for each of the factors. Therefore, it is inconsistent with the Act's Four-Factor analysis for a state's existing and future RP analyses to consider information outside the bounds of these factors (*e.g.*, air quality impacts, modeling results, and emission inventories).[64] Additionally, where a state includes visibility as additional weight-of-evidence in its decision-making to reject controls, this too is inconsistent with the Act.

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[59] EPA, "Draft Guidance on Progress Tracking Metrics, Long-term Strategies, Reasonable Progress Goals and Other Requirements for Regional Haze State Implementation Plans for the Second Implementation Period," EPA-457/P-16-001 (July 2016), at 72 ("The EPA considers 80 percent to be a reasonably large fraction for this purpose in the second planning period. If an approach does not reach this 80 percent inclusion level, the threshold for major stationary sources, minor stationary sources and/or categories of area stationary sources should be reassessed for reasonableness.[103]"); *see also id.* FN103 ("This recommendation based on 80 percent of the aggregate light extinction impacts may not be fully applicable when Q/d is used as a surrogate for visibility impacts. Mechanically, it is possible to compare the sum of the individual Q/d values for the "above threshold sources" to the sum of the Q/d values for all in-state sources, but this may not give a good indicator of what fraction of in-state light extinction impacts are attributable to the first set of sources. A state planning on relying on Q/d, or another surrogate, for screening purposes should consult with its EPA regional office about the specifics of its planned screening approach."), https://www.epa.gov/sites/default/files/2016-07/documents/draft_regional_haze_guidance_july_2016.pdf.

[60] *See, e.g.*, South Carolina Regional Haze Plan, App'x H-1 at pdf page 7.

[61] *See e.g.*, Oregon Department of Environmental Quality, "Regional Haze: 2018-2028 State Implementation Plan, Public Notice Draft" (Aug. 27, 2021), https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/RHSIP2021plan.pdf (last visited Jan. 21, 2022).

[62] 42 U.S.C. § 7491(a)(1).

[63] The Act provides that "in determining reasonable progress there shall be taken into consideration the costs of compliance, the time necessary for compliance, and the energy and nonair quality environmental impacts of compliance, and the remaining useful life of any existing source subject to such requirements." 42 U.S.C. § 7491(g)(1).

[64] The regional haze program takes air quality impacts into consideration in selecting which sources are evaluated for the RP Four-Factor Analysis, and to apply that same metric twice is not consistent with how Congress designed the program.

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Many states assert that visibility benefits are too small as an excuse to avoid controlling sources, including when cost-effective controls are identified via a Four-Factor Analysis. Visibility is not a fifth factor RP consideration under the Act.[65] For example, Texas identified at least 18 facilities for which there were cost-effective controls available, but the State refused to impose control measures at any of those sources because the visibility benefits would purportedly be too small and the annualized, aggregate cost of controls would be too large.[66] Other states that required no controls based on small visibility benefits, despite Four-Factor Analyses with cost-effective controls include: Tennessee;[67] Nebraska;[68] North Carolina;[69] and Washington.[70]

This approach is inconsistent with the Act, and EPA must ensure that states remove consideration of visibility (or the purported lack of perceptible visibility improvements) in selecting emission controls. While visibility is the goal of the regional haze program, *id.* at 7491(a)(1), the four-factor reasonable progress evaluation does not itself incorporate visibility, and states may not give it the same weight as the four statutory factors. Regional haze is "visibility impairment that is caused by the emission of air pollutants from numerous sources located over a wide geographic area."[71] At any given Class I area, hundreds or even thousands of individual sources may contribute to regional haze. Thus, it is *not* appropriate to reject a control measure for a single emission unit, a single source, or even a group of sources on the basis of the associated visibility benefits being imperceptible to the human eye.

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[65] *See e.g.*, Comment Letter to South Carolina at 68-69 ("Because DHEC 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. South Carolina cannot rely on visibility impacts to exclude emission reducing measures from sources that otherwise satisfy the four statutory factors.").

[66] Comment Letter to Texas at 20-22 ("Texas' Approach to Weighing Cost-Effectiveness to Visibility Impact is Flawed"); *see also* Texas Commission on Environmental Quality, 2021 Regional Haze State Implementation Plan at 7-14 to 7-15 (June 20, 2021).

[67] Comment Letter to Tennessee at 57.

[68] Comment Letter to Nebraska at 2.

[69] Comment Letter to North Carolina at 3.

[70] Comment Letter to Washington - November 2021 at 16, 44 (deferring all sources in the pulp and paper mill sector from conducting the required Four-Factor Analyses, despite the McKinley Paper Company having the second highest Q/d value (83.1) of any facility for which Ecology requested four-factor analyses; and the three other pulp and paper mills being in the top ten highest Q/d values as calculated by Ecology – the WestRock Tacoma facility, the Nippon Dynawave Packaging Company in Longview, and the Pt Townshend Paper Corporation); *see also* Comment Letter to Indiana at 13, citing 40 C.F.R. § 51.308(f)(2)(i); *see also id.* (explaining that "the state has an obligation to explain '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'" citing at FN53 *Motor Vehicle Mfrs. Assn. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) ("[T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'").

[71] 40 C.F.R. § 51.301.

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As a fundamental matter, EPA must affirm the fundamental principle that the degree of visibility improvement may not be used as screening metric to avoid a four-factor control analysis. Nor may states use the lack of visibility improvement as a factor that overrides controls that otherwise satisfy a four factor reasonable progress analysis. In other words, at the control analysis stage, states should consider *only* the four statutory factors to determine whether control measures are necessary to achieve reasonable progress. The Regional Haze Rule and EPA's 2019 Guidance make clear that states cannot weigh the visibility benefit of controls against the four statutory factors to identify appropriate control measures. Rather, for each source or source category that is selected for further analysis during the screening process, states would require whatever control measures are determined upon considering the four statutory factors alone.

b. States must independently review industry Four-Factor Analysis instead of assuming their correctness and adopting them without question.

The duty to ensure reasonable progress requirements are met for purposes of submitting a SIP to EPA rests with the state, not the source. Therefore, if a source is unwilling to prepare the analysis, the state must conduct the analyses to inform its reasonable progress determination. As discussed below in section 2.b, we ask that EPA support states' use of EPA's tools (*e.g.*, Control Cost Manual) to create their own Four-Factor Analyses). Moreover, it is the state's responsibility to independently review, evaluate and verify a draft Four-Factor Analysis submitted by a source and submit a SIP that complies with the Act.[72] A state must not "rubber stamp" a source's analysis. Despite the requirement for states to conduct an independent emission control analyses for any sources many states did not,

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[72] 40 C.F.R. § 51.308(f)(2)(i)(" *The State* must evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering 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. The State should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources. *The State* must 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. In considering the time necessary for compliance, if the State concludes that a control measure cannot reasonably be installed and become operational until after the end of the implementation period, the State may not consider this fact in determining whether the measure is necessary to make reasonable progress." (emphasis added); *see also* 42 U.S.C. § 7491(g)(1); *see also* 40 C.F.R. §§ 51.308(d)(3), (f)(2)(i); *see also* 42 U.S.C. §§ 7410(a)(2)(A); 7491(b)(2) (SIP must include among other things, requiring enforceable emission limitations necessary to ensure reasonable progress).

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including, Indiana,[73] Florida,[74] Louisiana,[75] Ohio,[76] South Carolina,[77] Tennessee,[78] Texas.[79] The lack of independent review by states arose in other areas as well, for example, states: relied on flawed RPO source screening analyses and did not evaluate an adequate number of sources and emissions;[80] neglected to consider and respond to FLM comments;[81] and did not review information provided during interstate consultation.[82] Indeed, as the Regional Haze Rule makes clear, the *state* has a duty to conduct a "robust" analysis of potential reasonable progress controls, and 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."[83] If a source prepares a flawed, incomplete or undocumented Four-Factor Analysis, the state must either require the source to make the necessary corrections or make the corrections itself and ensure that the Four-Factor Analyses is accurately and completely documented *before* the start of the public notice and comment period.[84] This lack of basic documentation not only precludes the state and any independent reviewer from

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[73] Comment Letter to Indiana at 4, 12-15.
[74] Comment Letter to Florida at 14, 15, 16, 18, 19, 20, 21, 22.
[75] Comment Letter to Louisiana at 2, 9-12.
[76] Comment Letter to Ohio at 13 (General James M. Gavin Power Plant, Kyger Creek Power Plant).
[77] Comment Letter to South Carolina at 18.
[78] Comment Letter to Tennessee at 21.
[79] Comment Letter to Texas at 11 ("This lack of documentation for the basic data that prevents an independent reviewer from replicating most of Texas' control cost analyses violates multiple portions of section 51.308..." *citing* 40 C.F.R. §§ 51.308(f), (f)(2)(iii), (f)(3)(ii)(B).).
[80] Similarly, where a Regional Planning Organization's reasonable progress analyses are flawed, the state must conduct must conduct independent analyses to inform its reasonable progress determination. *See e.g.*, Comment Letter to Connecticut at 5-12 (reliance on MANE-VU's assessments); *see also* Comment Letter to Florida at 10-13 (reliance on VISTAS flawed methodology for source selection); *see also* Comment Letter to Massachusetts at 5-12 (reliance on MANE-VU's assessments); *see also* Comment Letter to North Carolina at 11-14, (reliance on VISTAS flawed methodology for source selection); *see also* Comment Letter to South Carolina at 19-23 (reliance on VISTAS flawed methodology for source selection); *see also* Comment Letter to Tennessee at 17-21 (reliance on VISTAS flawed methodology for source selection).
[81] States also do not respond to the FLMs' comments on Four-Factor Analyses prepared by the sources, which indicates a state, fully supports the company's assertions. *See e.g.*, Comment Letter to Ohio at 20.
[82] *See e.g.*, Comment Letter to South Carolina at 52 ("... there is nothing in South Carolina's SIP that demonstrates DHEC conducted an independent evaluation of what it received from Pennsylvania and Ohio.); *see also* Comment Letter to Tennessee at 38 ("For the states TDEC did hear from and what information we found for the states that did not respond, there is nothing in the Draft SIP that demonstrates TDEC conducted an independent evaluation of what it received and found from the other states. Instead, TDEC 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 ..."*citing* Draft SIP at 218.); *see e.g.* Comment Letter to West Virginia at 64-65.
[83] 40 C.F.R. § 51.308(f)(2)(iii).
[84] *See e.g.*, Comment Letter to Indiana at 12-15 (IDEM Failed to Conduct Any Independent Emission Control Analyses for Any Sources).

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verifying the respective utility modeling or control cost analyses, but it is contrary to the Act and the RHR.[85]

In nearly all SIPs reviewed, the states accept source claims regarding costs with little to no documentation (specifically capital costs). Additionally, despite EPA final actions during the first planning period disapproving the use of flawed information, the states continue to use: improper interest rates;[86] equipment life;[87] and disallowed costs such as escalation during construction;[88] Allowance for Funds Used During Construction ("AFUDC");[89] contingency factor;[90] and owners costs.[91, 92] Moreover, states routinely only consider controls if they are in the RACT, BACT, LAER Clearinghouse ("RBLC").[93] While EPA created the RBLC to be used as a data

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[85] 2019 Guidance at 22.

[86] *See e.g.*, Comment Letter to Florida at 21, 22, 34; *see also* Comment Letter to Indiana at 24, 27, 29, 32, 35, 41; *see also* Comment Letter to Louisiana at 15, 16, 26, 27; *see also* Comment Letter to North Carolina at 21; *see also* Comment Letter to Ohio at 12, 14, 20, 39-42, 44; *see also* Comment Letter to South Carolina at 44-48; *see also* Comment Letter to Tennessee at 21, 30-32; *see also* Comment Letter to Texas at 8, 9, 12, 13, 14, 16; *see also* Preliminary Comment Letter to Virginia at 5, 6; *see also* Letter to Washington at 33, 36, 38, 40-42, 45, 46-50.

[87] *See e.g.*, Comment Letter to Florida at 21, 33; *see also* Comment Letter to Indiana at 29, 32, 35, 41; *see also* Comment Letter to Louisiana at 15, 27; *see also* Comment Letter to North Carolina at 21; ; *see also* Comment Letter to Ohio at 12, 15, 20, 39, 41, 42, 47, 48; *see also* Comment Letter to Tennessee at 21, 30, 31, 32; *see also* Comment Letter to Texas at 8, 11 (FN 35), 12-14, 16; *see also* Preliminary Comment Letter to Virginia at 5; *see also* Comment Letter to Washington - November 2021 at 50.

[88] *See e.g.*, Comment Letter to Louisiana at 16; *see also* Comment Letter to Tennessee at 29, 30, 31, 32; *see also* Comment Letter to Washington - November 2021 at 34.

[89] *See e.g.*, Comment Letter to Florida at 22, 35; *see also* Comment Letter to Ohio at 14; Comment Letter to South Carolina at 44, 45; *see also* Comment Letter to Tennessee at 28; *see also* Comment Letter to Texas at 16.

[90] *See e.g.*, Comment Letter to Louisiana at 16; *see also* Kordzi Report for Tennessee at 29-30, 31, 32.

[91] *See e.g.*, Comment Letter to Florida at 35; *see also* Comment Letter to Louisiana at 16.

[92] *Oklahoma v. U.S. E.P.A.*, 723 F.3d 1201, 1212 (10th Cir. 2013) (holding EPA has a reasonable basis for rejecting cost estimates where the agency explained the estimates "contain[ed] ... fundamental methodological flaws, such as including escalation and Allowance for Funds Used During Construction (AFUDC)..." and that "[t]he cost of scrubbers would not be substantially higher than those reported for other similar projects if OG & E had used the costing method and basis, i.e., overnight costs in current dollars, prescribed by the Control Cost Manual...") (internal citations omitted).

[93] EPA, RBLC, https://www.epa.gov/catc/ractbactlaer-clearinghouse-rblc-basic-information#:~:text=EPA%20established%20the%20RACT%2FBACT%2FLAER%20Clearinghouse%2C%20or%20RBLC%2C%20to,agencies%20and%20to%20aid%20in%20future%20case-by-case%20determinations (The terms "RACT," "BACT," and "LAER" are acronyms for different program requirements under the NSR program. **RACT, or Reasonably Available Control Technology**, is required on existing sources in areas that are not meeting national ambient air quality standards (*i.e.*, non-attainment areas). **BACT, or Best Available Control Technology**, is required on major new or modified sources in clean areas (*i.e.*, attainment areas). **LAER, or Lowest Achievable Emission Rate**, is required on major new or modified sources in non-attainment areas.")

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base of air pollution technology information it is not a comprehensive compilation.[94] There is also a general lack of documentation for all issues relating to the Four-Factor Analyses, including: capital, operational and maintenance costs;[95] unit-specific emissions;[96] retrofit factors;[97] and the other information necessary for an analysis.[98] In many instances, states use inaccurate information, which inflates the cost-effectiveness calculations. As discussed below, these errors appear despite early and detailed comments from the FLMs pointing out the need for corrections.

Additionally, most of the proposed SIPs do not include any information on unit-specific emissions, making it impossible for the public to review, comment and determine if correct units in a facility are being analyzed, and the historical emissions of the units being analyzed. The public cannot meaningfully comment on the proposed SIPs. Moreover, commenters are forced to submit state freedom of information requests for the unit-specific emission information, which are generally ignored, untimely and/or incomplete. In short, the states' reasonable progress analyses and long-term strategies that lack this information are arbitrary, unlawful, and unapprovable because the agencies fail to consider the relevant statutory and regulatory factors, and fail to articulate a rational connection between the facts in the record and the agencies' final decision.[99]

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[94] *See e.g.*, Comment Letter to Florida at 18, 19; *see also* Kordzi Report on Florida at 14, 15, 25; *see also* Comment Letter to Texas at 17, 18; *see also* Klafka Report on Ardagh Glass at 8 ("There have been additional emission control projects in the U.S. which have not been subject to the PSD regulations so are not documented in the BACT Clearinghouse. These also provide insight into demonstrated emission control methods.").

[95] *See e.g.*, Kordzi Report on Florida at 20, 21, 23, 25, 32, 34; *see also* Comment Letter to Indiana at 21, 26, 32, 33, 36, 37, 38, 40, 41, 53; *see also* Kordzi Report on North Carolina at 45; *see also* Comment Letter to Ohio at 14 FN 42; *see also* Comment Letter to South Carolina at 40, 43, 46; *see also* Comment Letter to Tennessee at 33.

[96] Comment Letter to Michigan at 16-17 ("...EGLE has not presented adequate emissions inventory information, it is not possible for an independent reviewer to validate EGLE's source selection methodology, nevertheless, a number of sources have been identified that were not covered by EGLE in its SIP, including LaFarge Midwest Inc., EES Coke Battery LLC, and U.S. Steel Great Lakes Works –these are sources of visibility impairing pollution identified through NPCA analysis of emissions and distance to Class I areas. EGLE should therefore either discuss why it has not considered the above listed facilities or conduct four-factor analysis on these facilities.").

[97] *See e.g.*, Comment Letter to Florida at 34; Comment Letter to Indiana at 31-32, 41; Kordzi Report on North Carolina at 43-46; Comment Letter to Ohio at 14, 15, 20 (Comment from the FLMs); Comment Letter to South Carolina at 44, 45; Kordzi Report on Tennessee at 34-35; Comment Letter to Washington - November 2021 at 33, 38, 41, 46, 48, 49.

[98] Specific details regarding the states' reliance on the industry-prepared flawed Four-Factor Analyses information is discussed in the expert reports included with the Conservation Organizations' comment letters.

[99] *State Farm*, 463 U.S. at 43; *see also North Dakota v. EPA*, 730 F.3d at 761 (A state's regional haze plan must be "reasonably moored to the Act's provisions" and based on "reasoned analysis" of the facts); *see also Motor Vehicle Mfrs. Assn. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983) ("[T]he agency must examine the relevant data and articulate a satisfactory explanation for its action including a 'rational connection between the facts found and the choice made.'"); *see also State Farm*, 463 U.S. at 43 (agency action is arbitrary and capricious if, among other things, "the agency

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In addition to ensuring that SIPs include complete and documented Four-Factor Analyses, we ask that EPA provide additional support for using its EGU cost calculation spreadsheets for other source types when there is a lack of documentation (*e.g.*, Washington used EPA's spreadsheets when companies submitted costs without documentation, but then said the State needed to conduct further analysis before a finding of cost effectiveness could be made).[100]

EPA must insist that SIPs provide for meaningful public review and comment, and that proposed SIPs be accurate, complete and fully documented *prior* to the start of public comment.

c. *States must not rely on arguments that a source is "effectively controlled."*[101]

States are misinterpreting EPA's 2019 Guidance on "effectively controlled" sources and/or failing to provide analysis to support their determinations.[102] EPA's 2019 Guidance states that it may be reasonable for a state not to select an

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has relied on factors which Congress has not intended it to consider, entirely failed to consider an important aspect of the problem, offered an explanation for its decision that runs counter to the evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise"); *see also North Dakota v. EPA*, 730 F.3d 750, 761 (8th Cir. 2013) (citing *Alaska Dep't of Envtl. Conservation v. EPA*, 540 U.S. 461, 485, 490 (2004) (EPA must ensure that the state's regional haze plan is "reasonably moored to the Act's provisions" and based on "reasoned analysis" of the facts)).

[100] Comment Letter to Washington - November 2021 at 30-31, 34, 37, 41; *see also* Kordzi Report on Ohio at 32 (explaining that the "Sargent and Lundy (S&L) wet and dry scrubber cost algorithms commissioned by EPA for use in its IPM modeling" are discussed in the Control Cost Manual and allows their use, but cautions that they must be modified to remove AFUDC and owner's' costs,[50]" FN50 citing Control Cost Manual, Chapter 1 Wet and Dry Scrubbers for Acid Gas Control, April 2021, page 1-49); *id.* (The Kordzi Report further explains that "[t]hese cost algorithms, along with the described adjustments have been made and utilized by EPA in the past, including its Texas BART FIP,[51]" (citation omitted)).

[101] July 2021 Clarification Memo at 5. Our comment letters also present this issue as a state relying on what it asserts are the "best performing controls" without providing a technical justification and analyses.

[102] *See e.g.*, Comment Letter to Florida at 13, 14, 17, 18, 19, 20; *see also* Comment Letter to North Carolina at 24 FN128, 41; *see also* Comment Letter to New Jersey at 16-17; *see also* Comment Letter to New York at 23-24, 26; *see also* Comment Letter to Ohio at 12, 13, 20 FN69; *see also* Comment Letter to South Carolina at 3, 25-26, 34, 44, 52 (regarding Pennsylvania's assertions that Units 1 and 3 at Genon NE Mgmt Co /Keystone Generating Station), 53-54 (regarding Ohio's assertions that Boilers B003 and B004 at the Gavin Power Plant), 58 (NPS consultation comments); *see also* Comment Letter to South Carolina at 29; *see also* Comment Letter to Tennessee at 43 (FLMs consultation comments); *see also* Kordzi Report on Tennessee at 19-20; *see also* Comment Letter to West Virginia at 26, 34, 35, 59, 61 (NPS consultation comment), 67 (regarding Kentucky's assertions for Units 1 and 4 at the Tennessee Valley Authority - Shawnee Fossil Plant), at 67-69 (regarding Ohio's assertions at Cardinal Operating Company - Cardinal Power Plant, Lightstone Generation LLC - General James M. Gavin Power Plant, Ohio Valley Electric Corp. - Kyger Creek Generating Station).

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"effectively controlled source" for controls in its regional haze plan, but EPA was referring to sources which had pollution controls installed recently to meet a Clean Air Act requirement for which there is a low likelihood of technological advancement in controls that could provide further reasonable progress.[103] Even for sources with recent pollution controls installed or that are otherwise effectively controlled, EPA's 2019 Guidance still requires that a state that does not select such a source for evaluation of controls to meet reasonable progress to "explain why the decision is consistent with the requirement to make reasonable progress, i.e., why it is reasonable to assume for the purposes of efficiency and prioritization that a full four-factor analysis would likely result in the conclusion that no further controls are necessary."[104] Moreover, SIPs that rely on the "effectively controlled" argument, must show that a Four-Factor Analysis would likely result in the conclusion that no further controls are necessary.[105]

Indeed, EPA has previously indicated that scrubber and SCR systems should be assessed for upgrades and that these upgrades are likely very cost-effective.[106] EPA's July 2021 Clarification Memo underscores this point making clear that in evaluating reasonable progress for all sources, states should consider the "full range of potentially reasonable options for reducing emissions . . . [and] may be able to achieve greater control efficiencies, and, therefore, lower emission rates, using their

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[103] 2019 Guidance at 22.

[104] 2019 Guidance at 22.

[105] 2019 Guidance at 19; *see also* July 2021 Clarification Memo at 5.

[106] *See, e.g.*, 40 C.F.R. § 51.308(f)(2)(i) (The State must evaluate and determine the emission reduction measures that are necessary to make reasonable progress by considering 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."); *see also* 82 Fed. Reg. at 3088 ("Consistent with CAA section 169A(g)(1) and our action on the Texas SIP, a state's reasonable progress analysis must consider a meaningful set of sources and controls that impact visibility. If a state's analysis fails to do so, for example, by . . . failing to include cost-effective controls at sources with significant visibility impacts, then the EPA has the authority to disapprove the state's unreasoned analysis and promulgate a FIP.").

Even if a source has a limited remaining useful life, EPA's Guidance contemplates that states consider cost-effective operational upgrades. Regional Haze Rule Guidance § II.B.3(f) ("If a control measure involves only operational changes, there typically will be only small capital costs, if any, and the useful life of the source or control equipment will not materially affect the annualized cost of the measure."); *see also* 70 Fed. Reg. 39,103, 39,171 (July 6, 2005) (where EPA has made it a point in past actions to ensure that existing controls are examined to determine if they can be cost-effectively upgraded. For instance, the 2005 BART revision to the Regional Haze Rule devotes several paragraphs to specific potential scrubber upgrades it recommends be examined.); *see also* 81 Fed. Reg. 295, 305 (Jan. 5, 2016) (EPA also demonstrated that scrubber upgrades to a number of coal-fired power plants utilizing outdated and inefficient scrubber systems were highly cost-effective, and could achieve removal efficiencies of ninety-five percent which is near the ninety-eight to ninety-nine percent removal efficiencies of newly-installed scrubber systems.); *see also* 82 Fed. Reg. 3078, 3088 (Jan. 10, 2017) (EPA noted in its 2017 Regional Haze Rule revision, EPA disapproved Texas' four-factor analysis in part because "it did not include scrubber upgrades that would achieve highly cost-effective emission reductions that would lead to significant visibility improvements.").

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existing measures."[107] Therefore, a state must first subject a source to a Four-Factor Analysis under section 51.308(f)(2)(i) before it is able to determine whether there are no emission reducing options available (including upgrades to existing controls).

Contrary to these requirements, many states suggest that where a (non-regional haze) standard is good enough for another program it's good enough for reasonable progress (*e.g.*, RACT in Washington, MATS and other existing programs/requirements for the VISTAS states[108]). Nearly all states do not consider upgrades/optimizations to existing controls or operating SCRs[109] and requiring controls all year.[110]

Contrary to the state's determinations regarding "effectively controlled"—every state we assessed thus far has EGUs with scrubber and/or SCR systems that are easily determined by our experts to be underperforming (*e.g.*, Indiana,[111]

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[107] July 2021 Clarification Memo at 7.

[108] *See e.g.*, Comment Letter to Florida at 13, 14, 15, 16, 21, 26, 27 FN129; see also Comment Letter to New York at 24 (NPS consultation comment); *see also* Comment Letter to South Carolina at 25-27, 34, 52-53 (Pennsylvania erroneously relied on the MATS rule for its analysis of the Genon NE Mgmt Co / Keystone Generating Station), 58 (NPS consultation comments), 66; *see also* Comment Letter to Michigan at 15-16; *see also* Comment Letter to Tennessee at 51; *see also* Comment Letter to West Virginia at 26-27, 34, 35, 67 (Kentucky's assertions regarding Units 1 and 2 at the Tennessee Valley Authority - Shawnee Fossil Plant), 71-72 (Pennsylvania erroneously relied on the MATS rule for its analysis of the Genon NE Mgmt Co / Keystone Generating Station), 75; additionally states also erroneously excuse sources from a Four-Factor Analyses if they are meeting NAAQS (current and future), NSPS, MACT, NESHAP, BACT, BART, CAIR, CSAPR, have a Title V permit, or LAER requirements).

[109] *See e.g.*, Comment Letter to Florida at 16, 17, 20, 21, 31, 32, 33, 34, 39; *see also* Comment Letter to Indiana at 15, 20, 21, 25, 26, 35, 42, 43, 44; *see also* Comment Letter to Louisiana at 13, 18; *see also* Comment Letter to North Carolina at 3, 8, 15, 23 (North Carolina did not consult with Ohio regarding the Cardinal Power Plant and Kyger Creek Power Plant, where upgrades must be considered), 23-24 (North Carolina did not consult with Pennsylvania regarding upgrades at the Seward Power Plant), 24-25; *see also* Comment Letter New Jersey at 17-19; *see also* Comment Letter to New York at 27, 29; *see also* Comment Letter to Ohio at 21, 22; *see also* Comment Letter to South Carolina at 27, 28, 29, 33, 34, 35, 36, 46, 48, 52-53, 58 (NPS consultation comment), 73, 74; *see also* Comment Letter to Michigan at 16; *see also* Comment Letter to Tennessee at 29, 40, 41, 61, 62; *see also* Comment Letter to Texas at 9, 10, 11, 12, 13, 18 FN51, 37.

[110] *See e.g.*, Comment Letter to Indiana at 24; *see also* Comment Letter to New Jersey at 15, 16, 17; *see also* Comment Letter to New York at 23, 24, 25, 26; *see also* Comment Letter to Ohio at 13, 21; *see also* Comment Letter to Washington - November 2021 at 29; *see also* Comment Letter to South Carolina at 36; *see also* Comment Letter to Tennessee at 44-45.

[111] Kordzi Report on Indiana at 11 (Duke Gibson Unit 1), 14 ("The [AEP] Rockport SCR systems have been underperforming since they came online."), 21 (Petersburg), 24 (Cayuga).

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Ohio,[112] North Carolina,[113] Louisiana,[114] South Carolina,[115]). As explained in several of the Kordzi Reports, the fact that an EGU is equipped with the most effective control *technology* (e.g., scrubbers and/or Selective Catalytic Reduction ("SCRs")) does not mean those controls are operating at their most effective levels.[116] "In Ohio, the State did not consider its EGUs because they have scrubbers installed—notably, the scrubbers were installed in the mid-1990s and have poor emission control rates.[117] Furthermore, emissions from units with SIP enforceable retirements dates five or more years away could still be reduced by using low sulfur coal, upgrading existing controls, or installing cost effective controls such as Dry Sorbent Injection ("DSI"), Selective Non-Catalytic Reduction ("SNCR"), and other controls.

EPA must give effect to its July 2021 Clarification Memo, and not approve SIPs that that erroneously rely on the "effectively controlled" argument to avoid the Four-Factor Analyses.

d. States must establish cost-effectiveness thresholds that are higher than the first round.

Cost-effectiveness thresholds for the second planning period should be higher than the first round, which at a minimum supports requirements that result in controls already required at similar sources. As we've expressed in our comments, we are concerned with some states using the same $5,000 per ton threshold as last round for cost analysis[118] or dismissing any cost of control. For example, Ohio,

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[112] *See generally* Kordzi Report on Ohio at 5-7; *id.* at 10 (Cardinal); *id.* at 13 (Bayshore); *id.* at 14 (Gavin); *id.* at 21 (Kyger Creek only utilizes its SCR systems at their full capabilities during ozone season); *id.* at 23-25 (W H Sammis).

[113] Kordzi Report on North Carolina at 15-18 (Marshall Power Plant); *id.* at 18-21 (Duke Energy Belews Creek Power Plant); *id.* at 21-24 (Duke Energy Roxboro Power Plant); *id.* at 24-26 (Duke Energy Cliffside Power Plant).

[114] Stamper Report on Louisiana at 35 (R.S. Nelson); *id.* at 46 Big Cajun II; *id.* at 58 (Brame Energy Center); *id.* at 66 (Ninemile).

[115] *See generally* Kordzi Report on South Carolina at 16 ("As is demonstrated elsewhere in this report, there are a number of sources with likely cost-effective NOx controls that SC DHEC should have required to be assessed for four-factor analyses. For instance, examples are cited of EGUs that already have installed the best NOx control available—SCR systems. In every case, these EGU SCR systems have demonstrated an ability to control NOx to a much higher level than they are currently achieving. The only apparent reason for this lax performance is that SC DHEC's permits do not require them to perform better. Thus, the "control" that would be evaluated would likely involve little to no capital expense, since the infrastructure is already present. Instead, the costs that would be evaluated may well be confined to additional reagent and perhaps better catalyst management.")

[116] *See e.g.*, Kordzi Report on Ohio at 13.

[117] Comment Letter to Ohio at 12-16.

[118] This is despite First Round SIPs that resulted in a wide range of cost-effectiveness values that states and EPA found acceptable, including values over $5,000/ton. *See, e.g.*, Comment Letter to Texas at 19 ("On page 7-12, and in on page B-14 of Appendix B, Texas discusses its rationale for establishing a cost-effectiveness threshold of $5,000, over which it does not consider any control,

North Carolina and Michigan are examples of states that did not identify a cost-effectiveness control threshold and instead created their own concoction of why they need not consider or require emission reduction measures. In contrast, several states are using a cost-effectiveness threshold of $10,000 per ton (*e.g.*, Oregon[119] and Colorado),[120] which demonstrates the reasonable approach of ratcheting up of costs from one planning period to the next. In its Regional Haze Guidance and consistent with its regulations, EPA advises states to exercise caution in establishing the cost-effectiveness threshold:

> As the Ninth Circuit explained in *NPCA v. EPA*, 788 F.3d at 1142, the Regional Haze Rule does not prevent states from implementing "bright line" rules, such as thresholds, when considering costs and visibility benefits. However, the state must explain the basis for any thresholds or other rules (see 40 CFR 51.308(f)(2)). If a state applies a threshold for any particular metric to remove control measures from further consideration before all other relevant factors are considered, it should explain why its selected threshold is appropriate for that purpose, i.e., why its application is consistent with the requirement to make reasonable progress.[121]

We request that EPA presume a control is cost-effective if it is operating or required at similar sources (including voluntary installations used to avoid PSD or

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regardless of visibility impact. Texas describes how it considered $2,700/ton and $10,000/ton thresholds, but concluded that $5,000 represented a "reasonable mid-point." This choice by Texas is completely arbitrary. No information was presented that would discriminate $5,000/ton from $7,500/ton or some other value.").; *see also*, Comment Letter to Indiana at 17-18 (Texas is using $5,000/ton as a cost effectiveness threshold. *see* https://www.tceq.texas.gov/assets/public/implementation/air/sip/haze/2021RHSIP_pro.pdf (last visited Jan. 21, 2022); Arizona is using $4,000 to $6,500/ton. *see*, e.g., Arizona Department of Environmental Quality, 2021 Regional Haze Four-Factor Initial Control Determination, Tucson Electric Power Springerville Generating Station, at 15, https://www.azdeq.gov/2021-regional-haze-sip-planning (last visited Jan. 21, 2022); New Mexico is using a floor of $7,000 per ton. *see* NMED and City of Albuquerque, Regional Haze Stakeholder Outreach Webinar #2, at 12, https://www.env.nm.gov/air-quality/wpcontent/uploads/sites/2/2017/01/NMED_EHD-RH2_8_25_2020.pdf.

[119] Oregon is using $10,000/ton or possibly even higher. *See, e.g.*, September 9, 2020 letter from Oregon Department of Environmental Quality to Collins Forest Products, at 1-2, https://www.oregon.gov/deq/aq/Documents/18-0013CollinsDEQletter.pdf (last visited Jan. 21, 2022).

[120] "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 NOx, PM, and SO_2. 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."), https://drive.google.com/file/d/1e0Qy1qFQERRcGcvHUHihLZGOzjRvqUW4/view?usp=sharing (last visited Jan. 21, 2022).

[121] 2019 Guidance at 38.

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other requirements). Generally, controls should be considered cost effective for the source in question unless there are documented unique circumstances. Further, the cost threshold should not be maintained at last round levels, but each round should come with the presumption that cost thresholds must be higher. Moreover, as the Clean Air Act is a technology-forcing statute, it is fitting for states to consider newer applications of control technologies or practices used at an industry or that could be applied across industries to limit emissions to the extent practicable.

3. Reasonable progress determinations must comport with the legal requirements.

Many of the issues discussed above are incorporated into the reasonable progress determination, including costs too high and/or visibility benefits too small to justify controls, and reliance on announced retirements to justify a "no control" decision. Other approvability issues include the following.

a. The Uniform Rate of Progress glidepath is not a safe harbor.

As EPA's 2021 July 2021 Clarification Memo reiterated, SIPs "that conclude that additional controls, including potentially cost-effective and otherwise reasonable controls, are not needed because all of the Class I areas in the state (and those out-of-state areas affected by emissions from the state) are below their uniform rates of progress (URPs)" have not "answer[ed] the question of whether the amount of progress made in any particular implementation period is 'reasonable progress.'"[122] EPA explained that its "2017 RHR preamble and the August 2019 Guidance clearly state that it is not appropriate to use the URP in this way, *i.e.,* as a 'safe harbor.'"[123] In a similar vein, many states assert that control analyses were not necessary considering the significant progress already made towards achieving the national visibility goal.[124] Yet other states asserted that additional controls for

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[122] July 2021 Clarification Memo at 15.

[123] July 2021 Clarification Memo at 15-16; *see also* EPA Guidance at 25; *see also* 82 Fed. Reg. 3078, 3093, 3099-3100 (Jan. 10, 2017); *see also* 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."); *see also* 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. 74818, 74834)).

[124] *See e.g.,* Comment Letter to Indiana at 52.

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the EGUs are not necessary to ensure reasonable progress toward natural visibility in Class I areas because visibility *monitoring* indicates that visibility is improving.[125]

North Carolina,[126] Ohio,[127] Tennessee,[128] West Virginia,[129] Indiana,[130] Louisiana,[131] Michigan,[132] South Carolina,[133] Washington,[134] and many other states are making these arguments. We ask that EPA confirm in its communications with all states that the URP is not a safe harbor.

b. States cannot satisfy interstate consultations where they are flawed, incomplete and have no effect.[135]

EPA's regulations require that each applicable implementation plan for a State in which any mandatory Class I Federal area is located contain such emission limits, schedules of compliance and other measures as may be necessary to make reasonable progress toward meeting the national goal.[136] The Clean Air Act 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.[137] 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."[138]

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[125] *See e.g.*, Comment Letter to Indiana at 11.
[126] Comment Letter to North Carolina at 17 ("DAQ attempts to justify deferring any further emission reductions for every major source in the state by pointing out that Class I areas appear to be trending below these area's glide path or URP, which DAQ suggests is sufficient to achieve reasonable progress.).
[127] Comment Letter to Ohio at 18 FN65, 20.
[128] Comment Letter to Tennessee at 58-59.
[129] Comment Letter to West Virginia at 33, 80-84, .
[130] Comment Letter to Indiana at 17-19, 48 ("IDEM Impermissibly Exempts EGUs From a Four-Factor Analysis Based on the State's Purported Compliance with the Uniform Rate of Progress.").
[131] Comment Letter to Louisiana at 10-11 ("...LDEQ attempts to justify 'deferring any further' emission reductions for every major source in the state by pointing out that Louisiana's Breton Wilderness Class I area appears to be trending below these area's glide path or URP, which LDEQ suggests is 'sufficient to achieve reasonable progress.'").
[132] Comment Letter to Michigan at 7-8.
[133] Comment Letter to South Carolina at 39 (argument made by Alumax - Century Aluminum of South Carolina, which the State did not correct.); *id.* at 70 ("DHEC also claims that '[f]or Cape Romain, visibility improvements are ahead of the timeline noted on the URP.'").
[134] Comment Letter to Washington - November 2021 at 58-59.
[135] July 2021 Clarification Memo at 16-17.
[136] 42 U.S.C. § 7491(b)(2).
[137] 42 U.S.C. § 7491(a)(1).
[138] 82 Fed. Reg. at 3,094.

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According to EPA, "[t]his 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."[139] Congress intended this provision of the Clean Air Act to "equalize the positions of the States with respect to interstate pollution,"[140] 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.[141]

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.[142]

Under the Regional Haze Rule, "[w]here 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."[143] 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

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[139] 82 Fed. Reg. at 3,085, citing *Vermont v. Thomas*, 850 F.2d 99, 101 (2d Cir. 1988)).
[140] S. Rep. No. 95-127, at 41 (1977).
[141] S. Rep. No. 95-127, at 41 (1977).
[142] 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.").
[143] 40 C.F.R. § 51.308(f)(3)(i).

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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.[144]

In its 2017 amendments to the Regional Haze Rule, 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."[145] In the event of a recalcitrant state, "[t]o the extent that one state does not provide another 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."[146]

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."[147] 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."[148] In any event, "[a]ll substantive interstate consultations must be documented."[149]

Nearly all states are ignoring these important and detailed interstate consultation requirements. In general, states don't ask other states to evaluate sources impacting their Class I areas. For example, North Carolina should have asked Ohio to do a four factor analysis for Cardinal and Kyger Creek coal-fired power plants in Ohio,[150] and also asked Pennsylvania to evaluate the Seward coal-fired power plant but did not.[151] Additionally, Louisiana did not ask Alabama for any evaluation of controls even though sources in Mobile, Alabama impact the Breton Wilderness Area;[152] those sources impact the adjacent environmental justice

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[144] 40 C.F.R. § 51.308(f)(4).
[145] 82 Fed. Reg. at 3,088 (emphasis added).
[146] 82 Fed. Reg. at 3,088.
[147] 40 C.F.R. § 51.308(f)(3)(ii)(B).
[148] 40 C.F.R. § 51.308(f)(3)(ii)(B).
[149] 40 C.F.R. § 51.308(f)(2)(ii)(C).
[150] Comment Letter to North Carolina at 23
[151] Comment Letter to North Carolina at 23-24.
[152] Comment Letter to Louisiana at 30-31.

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communities.[153] Despite the request from MANE-VU that several states implement certain emission reduction measures under the RHR as MANE-VU's analysis found that the identified states were contributing to visibility impairment at the Acadia National Park Class I Area,[154] states either ignored or disagreed with the request.[155] Even states within MANE-VU did not respond to the MANE-VU Asks and ignored the requests to prepare the Four-Factor Analyses and SIP emission limitations in their SIPs, in some instances erroneously relying on Title V permits that are not in the SIP.[156] In those limited instances where a state asks another state to conduct Four-Factor Analyses, more often than not, the state asked does not respond.[157] Other states spend months arguing with each other—without elevating the disagreements and resolving their differences.

EPA must insist that states comply with the interstate consultation requirements. Indeed, the myriad of states uniformly ignoring these requirements is likely to result in the necessary step of EPA's issuance of regional FIPs that address the interstate regional haze impacts for the recalcitrant states.

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[153] Comment Letter to Louisiana at 31-37 (*i.e.*, four existing steel mills, more than 30 chemical companies, 15 aerospace companies, eight military bases, and more than 200 business supporting oil and gas development including three refineries and petroleum storage and transport facilities.)
[154] Comment Letter to Florida at 39, citing Letter from Jeffrey F. Koerner, Director, Division of Air Resource Management, FL DEP, to Mr. David Foerter, Executive Director Mid-Atlantic/Northeast Visibility Union/Ozone Transport Commission (Jan. 19. 2018).
[155] *See e.g.*, Comment Letter to Florida at 39; *see also* Comment Letter to Ohio at 21; *see also* Comment Letter to Tennessee at 44-45.
[156] *See e.g.*, Comment Letter to Connecticut at 10-11 (for the Ask that requires that "Electric Generating Units (EGUs) with a nameplate capacity larger than or equal to 25 MW with already installed NOX and/or SO2 controls - ensure the most effective use of control technologies on a year-round basis to consistently minimize emissions of haze precursors, or obtain equivalent alternative emission reductions" ("MANE-VU 25 MW Ask") Connecticut's SIP relied on Title V permits for the 13 sources without putting the permit requirements in the SIP); *id.* at 12 (for the Ask regarding fuel switching, Connecticut's SIP similarly relies on Title V permits); *see also* Comment Letter to Massachusetts at 10-11 (the SIP explains that it includes a list of 53 EGU sources that are subject to the MANE-VU 25 MW Ask, yet the SIP neither includes the list of 53 EGU sources nor does it contain SIP emission limitations, instead it lists one Title V permit); *see also* Comment Letter to New York at 10, 22-26.
[157] *See e.g.*, Comment Letter to Tennessee at 38-40 (neither Indiana nor Georgia responded to TDEC's request for Four-Factor Analyses).

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c. States must not disregard FLM consultations.

The state must consult with the Federal Land Managers ("FLMs") and look to the FLMs' expertise regarding their resources and harms from air pollution to guide the state to ensure SIPs help restore natural skies.[158] The RHR 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.[159] These requirements are further clarified by EPA.[160]

While most states have engaged in some type of consultation process with FLMs, nearly all of them have disregarded the FLM consultation/asks where it really matters—in the emission reductions requirements or as manifested by the lack thereof at visibility impairing sources—and proceeded as they initially intended. To the extent that states have addressed FLM input and made changes from the prepublic version of the proposed SIP, it has largely been cosmetic. Several SIPs indicate only that they "considered" the FLM comments despite the detailed and lengthy formal FLM consultation comments. These states fail to engage with the FLM comments and fail to provide any explanation on why they ignore and/or disagree the FLM comments. Instead, the states reiterate what they have already been planning to do in the SIP. A mere indication that a state "considered" comments is not meaningful consideration of comments.[161]

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[158] FLMs have affirmative duties under 42 U.S.C. §§ 7492(a), (d) as well as mandates to protect and manage public lands under the Wilderness Act (16 U.S.C. §§ 1131-1136) and the Organics Act (54 U.S.C. § 100101).
[159] 40 C.F.R. § 51.308(i)(3); 40 C.F.R. § 51.308(f)(4).
[160] July 2021 Clarification Memo at 16-17.
[161] *Home Box Office, Inc. v. Federal Communications Commission*, 567 F.2d 9, 35 (D.C. Cir. 1977).

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Several FLM consultations are incomplete. For example, in Oregon the FLMs provided a critique and input on the state's Four-Factor Analyses in the FLM consult draft,[162] however rather than evaluate and consider FLM analysis, the proposed SIP replaced nearly all of the state's Four-Factor Analyses with industry agreements maintaining the status quo instead of reductions.[163] The FLMs had no opportunity to consult on these agreements and the public there is deprived of knowing whether and how those agreements satisfy regional haze requirements from the FLM perspective. Other FLM consultations are not documented and are therefore not available to the public (*e.g.*, South Carolina,[164] Louisiana,[165] Washington[166] (only partially documented)). West Virginia's so-called consultation with the FLM raises numerous process and transparency issues.[167] The FLMs (National Park Service, USDA Forest Service and U.S. Fish and Wildlife Service) take their consultation obligations seriously and identify sources to be evaluated under Four-Factor Analyses, identify issues with a state's screening methods, recommend measures for achieving or better achieving emission reductions, and identify concerns with an outcome of no or too few emission reduction measures. Unless the FLMs are requesting minor nonsubstantive corrections to Four-Factor Analyses, states have widely disregarded the consultation comments (*e.g.*, Indiana,[168] New Jersey,[169] New York,[170] Ohio,[171] Tennessee,[172] Texas,[173] North Carolina,[174]).

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[162] Letter from Cindy Orlando Acting Regional Director National Park Service, Interior Regions 8, 9, 10, and 12, to Oregon Department of Environmental Quality, Attention: Karen F. Williams, "NPS Review of the proposed Oregon Regional Haze State Implementation Plan (SIP) for the Second Implementation Period (2018-2028)," (Oct. 29, 2021), https://drive.google.com/file/d/10W2f0MFIIvBPeAvjzGk2eCZDhH8p9KlA/view?usp=sharing, with Enclosure 1, "National Park Service (NPS) Regional Haze SIP feedback for the Oregon Department of Environmental Quality," (Nov. 1, 2021), https://drive.google.com/file/d/1gfBlqxS6TWh_BJa6xO7NkaW_oS83rp5W/view?usp=sharing.

[163] Oregon Department of Environmental Quality, "Regional Haze: 2018-2028 State Implementation Plan, Public Notice Draft" (Aug. 27, 2021), https://www.oregon.gov/deq/Regulations/rulemaking/RuleDocuments/RHSIP2021plan.pdf (last visited Jan. 21, 2022).

[164] Comment Letter to South Carolina at 55-60 (South Carolina's SIP failed to include information on whether or how the State addressed the FLM comments).

[165] Comment Letter to Louisiana at 38 ("In its proposal, LDEQ indicates that the agency LDEQ is 'presenting this draft copy [to the FLMs] seeking their input.' In other words, LDEQ failed to consult with the Federal Land Mangers until *after* the state already developed and issued its proposed SIP, making it impossible for the Federal Land Managers' recommendations to "meaningfully inform the State's decisions on the long-term strategy," as required by 40 C.F.R. § 51.308(i)(2). The proposed SIP also fails to include any information on whether or how LDEQ has addressed any FLM comments or concerns to date, as required by 40 C.F.R. § 51.308(i)(2). In essence, the LDEQ SIP transforms the Regional Haze Rule's mandatory and iterative FLM consultation process into pro forma, after-the-fact box-checking exercise." (internal citations omitted)).

[166] Comment Letter to Washington - November 2021 at 67-68 (commenting that many of Ecology's responses were non-responsive and/or inconsistent with the CAA and RHR requirements, including: (i) Perceptibility should not be considered in screening source controls for reasonable progress; (ii) Visibility improvement is not a fifth-factor "off-ramp" for emission controls; (iii) If visibility benefit

EPA must provide firm direction to the states that they must meaningfully consider and address the insight and recommendations of federal agency counterparts, and that states must use the FLM consultation comments to inform or amend the pre-public version of the SIP in response to the FLM comments or provide a reasoned basis for disagreement. Given that FLM comments are based on well-documented facts and legal concerns from the Act, RHR, EPA's guidance and

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analyses are undertaken, they should reference a clean – not dirty – background; (iv) RACT, which Ecology describes as a "C-grade" control or emission limit, clearly is less stringent than emission limits developed from application of the four-factor reasonable progress analysis; (v) Use of an outdated emission inventory is not allowed under the RHR; (vi) The state must document support for its proposed SIP decisions; and (vii) Reliance on the lack of a federal action by Department of Interior in another program that does apply to existing sources is not a legitimate basis to justify no controls at those sources.).

[167] Comment Letter to West Virginia at 53-62.

[168] Comment Letter to Indiana at 27; *id.* at 28 ("...IDEM admitted it would put on a good show in "addressing the FLMs comments as thoroughly as possible" but only to "show that Indiana has seriously evaluated the selected sources in accordance with the RH Rule and section 169A(g)(1) of the CAA which lists four factors that must be taken into consideration in determining reasonable progress" not do actually require any controls," citing Draft SIP, Appendix P at 3; *see also id.* at 50-53.

[169] Comment Letter to New Jersey at 14 ("The FLMs requested that numerous facilities be evaluated for air pollution controls/reductions based on emissions and Q/d analyses and the state has failed to provide an ample analysis or explanation for its failure to assess these sources for additional emission reducing measures.).

[170] Comment Letter to New York at 15.

[171] Comment Letter to Ohio at 19-20 (Notably, OEPA appears to not have considered comments made by the U.S. Forest Service. Additionally, OEPA merely includes the companies' response70 to the several FLM comments, without providing its independent assessment of the information submitted by the companies. In doing so, it appears that OEPA has fully endorsed the companies' submittals critiquing the FLM comments. Comments from the NPS and USFS ignored by the State included:

- The lack of federally enforceable emission limitations in the SIP;
- Improper reliance on a broad weight-of-evidence approach, including visibility, rather than consideration of the four statutory RP factor to determine RP requirements;
- The need to broaden what OEPA considers as effective emission controls;
- Sources should not be excluded from the RP analysis requirement based on "design" efficiency of emission controls;
- Inflated cost analyses (*e.g.*, inaccurate interest rate, equipment life, control efficiency and retrofit factors) prejudicing emission reduction outcome;
- Analysis based on reduced capacity, where there are no enforceable limitations on capacity, are erroneous;
- Perceptibility is not a requirement for reasonable progress;
- If visibility benefit analyses are undertaken, they should reference a clean background;
- Use of PSAT modeled visibility impacts from specific sources should not be used to generically represent other sources;
- Scale PSAT modeled visibility impacts to reflect different emission scenarios from those that were actually modeled; and
- Relieve a source or group of sources from performing a four-factor analysis and installing cost effective controls if the Class I Area impacted is below the glidepath.).

[172] Comment Letter to Tennessee at 42-44.

[173] Comment Letter to Texas at 38-30.

[174] Comment Letter to North Carolina at 18-21.

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July 2021 Clarification Memorandum, the states must amend the pre-public version of the SIPs in response to comments from the FLMs.

d. States must not delay control requirements and/or determinations to the next planning period.

EPA's July 2021 Clarification Memo made clear that "[i]f four-factor analyses evaluate a reasonable range of potential control options, we anticipate that in many cases states will find that new (*i.e.*, additional) measures are necessary to make reasonable progress."[175] Indeed, based on Four-Factor Analyses states are indeed determining control options are reasonable. However, despite these determinations, several states are delaying controls until the next planning period, while other states neglect to make a determination on whether controls are reasonable. Such state determinations are contrary to EPA's July 2021 Clarification Memo, which indicated that "[a]ll new measures must be included in the SIP."[176] Washington is one such state because despite finding reasonable controls for numerous sources, Washington is delaying controls for pulp and paper mills and refineries to the next planning period, planning on a subsequent SIP revision.[177] Other states where Four-Factor Analyses demonstrated reasonable controls are available and yet the state failed to make any determination at all include: Indiana. Michigan, and North Carolina.[178]

We ask that where additional measures satisfy a Four-Factor Analysis, EPA ensure SIPs include new measures to limit emissions to make reasonable progress.

e. States must not exempt emissions from new and modified sources from the Act's RH RP requirements.

Several states appear to have permitted new construction without ensuring that the source's emissions are consistent with the RH program requirements and making progress towards meeting the national goal of preventing any future, and remedying any existing, impairment of visibility.[179] This states must not do. The reasonable progress requirements apply to existing and *new* sources.[180] Indeed, the

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[175] July 2021 Clarification Memo at 8.
[176] July 2021 Clarification Memo at 8.
[177] Comment Letter to Washington - November 2021 at 30-41 (oil refineries); *id.* at 42-50 (pulp and paper mills).
[178] *See e.g.*, Comment Letter to Indiana; *see also* Comment Letter to Michigan; *see also* Comment Letter to North Carolina.
[179] *See e.g.*, Comment Letter to South Carolina at 32 (Dominion Energy Cope Generating Station), 72 (Nucor Steel Berkley); *see id.* Comment Letter to Florida at 13, 14, 17.
[180] 42 U.S.C. §§ 7491(g); 40 C.F.R. § 51.300(a); 40 C.F.R. § 51.307(c) ("Review of any major stationary source or major modification under paragraph (b) of this section, shall be conducted in accordance with paragraph (a) of this section, and § 51.166(o), (p)(1) through (2), and (q). *In conducting such reviews the State must ensure that the source's emissions will be consistent with making reasonable progress toward the national visibility goal referred to in § 51.300(a).* The State may take into

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RHR requires that in deciding whether to grant an application for construction or modification at a major source the state must ensure that the new emissions will be consistent *with making reasonable progress toward the national visibility goal.*[181] States need a rational basis for making such a determination, which must be based on a Four-Factor Analysis.[182]

Moreover, when developing a long-term strategy a state must consider "[m]easures to mitigate the impacts of construction activities."[183] As the FLM's pointed out during the first round of RH SIPs, the states often ignored these requirements and thus Round 1 RH SIPs may lack provisions to mitigate the impacts of emissions from new and modified sources.[184] EPA's 2019 Guidance made clear that "[i]f the state does not select construction activities as a source category for an analysis of control measures, the SIP must nevertheless indicate how the state has considered measures to mitigate the impacts of construction activities."[185]

EPA must insist to the states that emissions limitations for new and modified sources—including Four-Factor Analyses and necessary controls—must be considered and included during a state's decision on whether to grant an application

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account the costs of compliance, the time necessary for compliance, the energy and nonair quality environmental impacts of compliance, and the useful life of the source." (emphasis added)).

[181] 40 C.F.R. § 51.307(c).

[182] 40 C.F.R. § 51.307(c).

[183] 40 C.F.R. § 51.308(d)(3)(v)(B).

[184] Alabama Regional Haze State Implementation Plan, Appendix P, FLM Comments on Alabama's Draft SIP (Email and Attachment from Catherine Collins, USFWS, to ADEM, "Fish and Wildlife Service Comments regarding the Alabama Regional Haze State Implementation Plan," (Dec. 26, 2007), at pdf 13, EPA-R04-OAR-2009-0782-0026, https://www.regulations.gov/document/EPA-R04-OAR-2009-0782-0026 ("...the State should include a discussion about the relationship between PSD/NSR programs as part of the other programs that will benefit visibility in the LTS section. A new or modified major industrial source can have a serious impact on the State's ability to obtain RH goals. As part of the Long- Term Strategy (LTS), the State will rely in great part on the New Source Review (NSR) and Prevention of Significant Deterioration (PSD) permitting programs to assure that new sources do not unduly impair the expected progress toward natural conditions. Section 7.2.1. of the November 2007 draft SIP speaks to emissions reductions of ongoing programs but does not include a discussion of the interaction between the existing NSR program and progress on the regional haze plan. Given the uncertainty in the new source growth estimates used to develop the 2018 emission inventory, and ultimately the 2018 visibility projections, it would be appropriate for the state to discuss the relationship between the Regional Haze Plan and requirements of the NSR and PSD programs within the SIP. Specifically, how does the State anticipate addressing new sources of air pollution in the PSD process in regards to its reasonable progress goals and long term strategy; and, how will it analyze the affect [*sic*] of new emissions from these new sources on progress toward the interim visibility goals established under this SIP, as well as the ultimate goal of natural background visibility by 2064.")

[185] 2019 Guidance at 22 (which further explains that "If the state has selected construction activities as a source category for an analysis of control measures, it will consider this factor in that analysis. That analysis and the decision about what measures are necessary for reasonable progress are the subjects of Sections II.B.4 and II.B.5 of this document.")

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for a construction permit. The RH SIPs must also include the necessary mitigation and emission limitations from the permit terms and conditions to make them enforceable in the SIP. Additionally, as the rule requires the long-term strategy include measures to *mitigate* the impacts of emissions construction activities, the emissions from new or modified source must be limited, otherwise the new emissions will not be consistent with making reasonable progress. Moreover, when an EGU proposes to switch fuel from coal to natural gas[186] EPA must not allow states to approve construction permits that fail to apply the Act's Four-Factor Analysis requirement and resulting mitigation measures. In the absence of such analysis and associated requirements the construction or modification of a facility may cross the Act's provisions to prevent future visibility impairment, as well as the Act's anti-backsliding provision.[187]

f. States must not assert that that reasonable progress goals determine reasonable progress.

Many states set reasonable progress goals, *before* and *in lieu of* conducting the required Four-Factor Analysis. These states have impermissibly reversed the order of the requirements. The states 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 reasonable progress goals. The reasonable progress goals are not to be developed before the Four-Factor Analyses but as a result of the Four-Factor Analyses.[188]

One example is Washington State, where they first set the reasonable progress goals, and then conducted the Four-Factor Analyses.[189] The MANE-VU states also apply this approach, calculating reasonable progress goals based on non-enforceable reasonable progress measures.[190] In the VISTAS states, some term the

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[186] *See* discussion *infra* Section 5.b. regarding EGU source modifications switching fuel from coal to natural gas.

[187] *See e.g. Sierra Club v. Env't Prot. Agency*, 985 F.3d 1055 (D.C. Cir.), *superseded*, 21 F.4th 815 (D.C. Cir. 2021).

[188] *See e.g.*, 82 Fed. Reg. at 3090-91.

[189] Comment Letter to Washington - November 2021 at 8, 53.

[190] Comment Letter to New Jersey at 2 ("New Jersey indicates that the long term strategy must include the measures necessary to achieve the reasonable progress goals (RPGs) established by states where the Class I areas are located.1 This is backwards. The state must determine what additional emission reductions measures are needed to make reasonable progress, considering the four statutory reasonable progress factors along with the factors specified in the revised RHR. Reasonable progress goals are determined from measures that are necessary to make reasonable progress, rather than measures being identified as needed to meet RPGs. While MANE-VU may have calculated values that it and its member states refer to as RPGs, these are not RPGs until the state with the Class I area adopts them as such. Regardless of the RPGs and regardless of how current visibility or projected visibility compares to values calculated by MANE-VU, New Jersey must show that it has adopted a long-term strategy that complies with the RHR and that was developed by NJDEP based on its own reasoned decision making. Additionally, for the second implementation period, the revised RHR does not require a state to consider "the uniform rate of

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reasonable progress goals the "rate of progress" goals, and all reviewed thus far merely base goals on the flawed VISTAS modeling results.[191]

EPA must make clear to the states that failure to first conduct the Four-Factor Analyses and then use the results of those Analyses and the emission limitations secured in the SIP to develop revisions to the reasonable progress goals will result in an unapprovable SIP.

4. States must not use unique approaches that conflict with Act and Regional Haze Rule.

a. *Oregon.*

Oregon's Four-Factor Analyses indicated that controls were cost effective. But the State decided to replace those Four-Factor Analyses with industry agreed-upon plans that neither result in emission reductions nor apply the Act's four factors.[192] Oregon's enabling state law is potentially illegal as it considers issues outside of the RHR.

b. Washington.

Washington's SIP found cost-effective controls but claimed they are required to follow a State-RACT process under state law, which will delay controls until at least the third round. The State indicates it lacks authority to control sources under the Act's RP requirements and incorrectly asserts that Washington State RACT "is equivalent to the" Regional Haze Rule's four-factor analysis.[193] Based on the plain language in Washington's statute for RACT—and the detailed analysis in our Comment Letter— the *five*-factor State-RACT is neither equivalent to nor more stringent than the Clean Air Act's RP Four-Factor Analysis.[194] Washington must use one of the other authorities identified in our comments[195] and cannot use its

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improvement" or require a state to consider the measures that would be needed to meet the uniform rate of progress. That requirement of 40 C.F.R. § 51.308(d) does not have a counterpart in 51.308(f).");

[191] Comment Letter to North Carolina at 17; *see also* Comment Letter to South Carolina at 60-61; *see also* Comment Letter to Tennessee at 47; *see also* Comment Letter to West Virginia at 72-73.

[192] Comment Letter to Oregon at 2 ("... after comments on the Division 223 rules were closed, DEQ fundamentally altered its approach without engaging in any kind of public process and without consulting stakeholders other than the regulated entities. Instead of ordering all 17 facilities to implement the reasonable progress controls identified through four-factor analyses, DEQ inexplicably chose to extend offers that allowed all but one of these facilities to exit the program or comply with the program without investing in the highly effective pollution-reducing technology that DEQ could—and should—have required these facilities to install to meet the state's obligations under the regional haze program.); *id.* at 4-19.

[193] Comment Letter to Washington - November 2021 at 17-22.

[194] Comment Letter to Washington - November 2021 at 17-22.

[195] Comment Letter to Washington - November 2021 at 22-25.

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State-RACT process to avoid compliance with the Act's reasonable progress requirements.

c. *Texas.*

Texas' SIP used a combined source evaluation.[196] Texas evaluated the annualized cost of controls across multiple sectors and types of sources against purported visibility benefits of those controls, rather than evaluating the cost-effectiveness of controls at very large individual sources. This is essentially identical to the illegal approach Texas took in evaluating reasonable progress in Round 1.[197] EPA rejected that approach and issued its own federal implementation plan because Texas's analysis overlooked cost-effective, source-specific pollution controls at a number of individual sources, each of which had significant visibility impacts:[198]

> [I]individual sources were not effectively considered by the TCEQ. . . . A primary flaw was that the control set was overinclusive. It included controls on sources that served to increase the total cost with little visibility benefit. As was noted in our proposal, Texas adopted this approach despite evidence in the record of identified source-specific, cost-effective controls that would have resulted in large emission reductions on certain EGUs, and despite source apportionment modeling that identified large impacts from EGU sources in northeast Texas. Our proposal explained that this approach obscured benefits that might be obtained from individual sources and only considered aggregated costs. . . . Therefore, whether the state's analysis is labeled a source category analysis, an analysis of multiple individual sources, or some hybrid, we conclude that it contained serious deficiencies that would materially affect the outcome of the state's SIP process. . . . Ultimately, however, while there is flexibility in available analytical approaches, states cannot adopt an approach to reasonable progress, which by its nature overlooks cost-effective controls that would otherwise be viewed as being beneficial.

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[196] Comment Letter to Texas at 14-15; *see generally* Texas Commission on Environmental Quality, 2021 Regional Haze State Implementation Plan Revision, Chapter 7 (June 30, 2021) ["Texas Round 2 SIP"].

[197] Texas Commission on Environmental Quality, Revisions to The State Implementation Plan Concerning Regional Haz at 10-5 (Feb. 25, 2009).

[198] This response to comment has been summarized from the original, which appears in the Texas-Oklahoma FIP, 81 Fed. Reg. 313 (Jan. 5, 2016).

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Due, in part, to Texas's flawed first round SIP, EPA's 2019 Guidance explicitly advises against using that annualized approach during the second planning period:

> EPA does not believe it is reasonable to solely use a threshold for the capital cost or annualized cost to determine that a measure is not necessary to make reasonable progress. Large capital costs considered in isolation may not provide complete information about the potential reasonableness of a measure; additionally, decisions to exclude control measures from consideration should also take into account relevant information for other factors.[199]

Texas's continued use of a flawed annualized, aggregate control analysis is contrary to the Regional Haze Rule, flouts EPA's explicit guidance on the topic, and must be revised. This flawed approach is especially egregious since, similar to its first round SIP, Texas's contribution to particulate sulfate visibility degradation in nine out-of-state Class one areas is *greater* than the home state's contribution; and its particulate nitrate contribution to six out-of-state Class I areas is likewise greater than the state in which the Class I area is located.[200] This makes it impossible for Texas to satisfy section 51.308(f)(3)(ii)(B)'s requirement that the state demonstrate "that there are no additional emission reduction measures for anthropogenic sources or groups of sources in the State that may reasonably be anticipated to contribute to visibility impairment in [another state's] Class I area that would be reasonable to include in its own long-term strategy."

d. *Indiana.*

Indiana's SIP contains a blanket exemption of EGUs from the Four-Factor Analysis.[201] The EGUs are the largest source sector in Indiana, "even though they generally have the greatest visibility impacts at nearby Class I areas and together account for 11 of the 20 top sources on the Q/d list" contributing 77,777 tons of NOx and 85,329 tons of SO_2 per year.[202]

e. Use of Plantwide Applicability Limits (PALs).

Some states have proposed or are considering plantwide limits—in lieu of the Unit-Specific Four-Factor Analysis requirement—that give the source the flexibility

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[199] 2019 Guidance at 39.
[200] *See* Texas Round 2 SIP at 8-47 to 8-53.
[201] Comment Letter to Indiana at 11-12 (IDEM's explanation "intends to conduct a review of the EGU sector for the January 31, 2025 progress report, pursuant to 40 CFR 51.308 (g). If necessary, IDEM will evaluate EGUs more in depth for the third implementation period of the RH Rule, to be submitted in 2028" "is unsupported by the record, arbitrary and capricious, and inconsistent with the Clean Air Act and the Regional Haze Rule, for numerous reasons.").
[202] Comment Letter to Indiana at 11; *see also* Indiana Regional Haze State Implementation Plan for the Second Implementation Period at 55 (Dec. 2021)

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to decide how to meet emission reductions. Oregon proposed this in its agreements with industry.[203] The PALs are an issue for numerous reasons: (1) they fail to meet the unit-specific technology based emission limit required by the Act; (2) they don't result in a reduction equivalent to reductions from a Four-Factor Analysis; (3) they are subject to abuse because in some instances PAL emissions are based on allowable emissions, don't amount to a reduction in actual emissions (*i.e.*, PacifiCorp), and ultimately don't require installation of pollution controls.

f. Ohio.

Ohio considered affordability of controls for some of its sources.[204] While Ohio noted that there is no provision in the RHR to consider affordability, the State nevertheless considered it.[205] Consideration of costs is outside the bounds of the Act's Four-Factor Analysis.[206] Moreover, as the Kordzi Report on Ohio clearly demonstrated in the "Comments on the Carmeuse Maple Grove SO_2 Analysis,"[207] despite the source's inappropriate costing methodology that highly inflated costs, the Kordzi Report shows that "SO2 controls are available for retrofit to the Carmeuse kilns at cost-effectiveness levels that have previously been found to be cost-effective by many states."[208]

We urge EPA to instruct these states that the unique approaches outlined above are inconsistent with the Act and RHR requirements.

5. <u>States must ensure that SIPs are consistent with the Administration's priorities.</u>

a. Consideration of Environmental Justice.

State and federal authorities require consideration of environmental justice.[209] While some states acknowledge their authority, commitment and need to

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[203] Comment Letter to Oregon at 9-12 (Table comparing emission reductions projected from installation of four factor analysis requirements as compared to requirements of "alternative compliance" agreements, heavily reliant on Plant Site Emission Limits or "PSELs").
[204] Kordzi Report on Ohio at 46, citing Ohio Draft SIP at 39.
[205] Kordzi Report on Ohio at 46.
[206] *See e.g.*, Kordzi Report at 47.
[207] Kordzi Report on Ohio at 42-45.
[208] Kordzi Report on Ohio at 44-45.
[209] *See e.g.*, Comment Letter to Connecticut at 12-17; *see also* Comment Letter to Florida at 22-25 ("FL DEP Must Consider Emissions from and Include Emission Limitations on Preharvest Sugarcane Field Burning"); *see also id.* at 39-43; *see also* Comment Letter to Indiana at 55-58; *see also* Comment Letter to Louisiana at 30-34 (Louisiana did not consult with Alabama regarding sources in Mobile, Alabama that impact the Breton Wilderness Area and the environmental justice communities); *see also id.* at 38-41; *see also* Comment Letter to Massachusetts at 15-18; *see also* Comment Letter to Michigan at 17-19; *see also* Comment Letter to North Carolina at 27-31; *see also*

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consider environmental justice, most if not all SIPs do not contain meaningful consideration, much less emission limitations to protect environmental justice communities. States like Oregon have gone to great lengths to develop environmental justice methods and use environmental screening thresholds, but nothing material came of such considerations.[210] Colorado acknowledged the need to consider environmental justice, but again, nothing appears to have come of it.[211] Yet other states, like North Carolina, misunderstand an environmental justice analysis, and looked at whether the communities near Class I areas were classified as environmental justice communities rather than looking at the communities impacted by sources.[212]

Finally, the Table below contains the sources NPCA identified as sources of concern due to their potential to impair visibility at Class I areas *and* their

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Comment Letter to New Jersey at 21-27; *see also* Comment Letter to New York at 16; *see also id.* 18-22; *see also* Comment Letter to Ohio at 22-25; *see also* Comment Letter to South Carolina at 87-91; *see also* Comment Letter to Tennessee at 63-68; *see also* Comment Letter to Virginia at 7-9 ; *see also* Comment Letter to Washington - November 2021 at 52-56; *see also* Comment Letter to West Virginia at 88-94.

[210] Comment Letter to Oregon at 17-20 ("Despite the claim in the SIP that DEQ incorporated environmental justice into its regional haze decisions, nothing in the SIP suggests that DEQ considered environmental justice in making the choice to extend "alternative compliance" to 16 of the 17 facilities with reasonable progress controls. While DEQ carefully established a protocol and analyzed the environmental justice and vulnerable populations "score" of each facility with cost-effective controls identified in its four-factor analysis, it then seemingly ignored this information when making consequential decisions: in place of actual significant reductions in emissions that would be achieved though the implementation of four factor reasonable progress control analyses the agency instead established alternative compliance to these facilities regardless of the environmental justice impacts and the impacts on vulnerable populations.")

[211] National Parks Conservation Association and Sierra Club's Prehearing Statement Before the Colorado Air Quality Control Commission Regarding Proposed Revisions to the Regional Haze State Implementation Plan (SIP), Regulation 23 at 13-15 ("Rather than substantively incorporate equity and environmental justice principles into this rulemaking, the Division makes only one passing reference to community concerns in the proposed SIP and supporting documents. But notably, that sole reference to community concerns is for the Cemex facility in Lyons, where the Division noted that it rejected a proposed control technology in response to community outcry against the technology. (citation omitted) Tellingly, the Division's proposal makes no mention of any community concerns in the disproportionately impacted communities in North Denver, Pueblo, or Florence, which will be impacted by the Division's actions regarding Suncor, the GCC Rio Grande – Pueblo cement plant, and the Holcim Florence cement plant.")

[212] Comment Letter to North Carolina at 29 ("While we appreciate DAQ's efforts to prepare an environmental justice analysis, it falls short. DAQ's proposed SIP explains that it overlaid the State's Class I areas with maps of potentially underserved block groups, which was then used to inform the specific EJ focused outreach for the RH program. While this is a useful first step, DAQ must do more. DAQ must involve and consider the environmental justice communities impacted by harms from the reasonable progress sources. DAQ's SIP ignores the fact that many of the reasonable progress sources are located in communities of color and many live below the poverty line. For example, PCS Phosphate Company (Aurora) and Domtar Paper Company are located in vulnerable areas where the people of color is higher than 64% and the percentage of poverty rate is higher than 30%." (citation omitted)).

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likelihood to impact vulnerable communities. The selection was made using environmental justice markers such as people of color and people living below the poverty line. NPCA used American Community Survey data from the United States Census Bureau at the county and city levels to identify vulnerable communities. Additional information at the community or neighborhood levels was used when available for this selection. The sources identified below lack the best pollution controls or lack of pollution control upgrades to further reduce emissions and lessen the burden of air pollution in these communities. We will continue to make EPA aware of similar sources of concern identified in our future comment letters.

Table 1. Sources Identified by NPCA of Concern Due to Potential Impacts on Visibility at Class I Areas and Their Likelihood to Impact Vulnerable Communities.

State	Facility	County	Description	Cumulative Q/d (>=5)	% of People of Color	% of People Living Below Poverty Line	NOx (tons)	SO2 (tons)
AZ	FREEPORT MCMORAN MIAMI SMELTER	Gila	Primary Copper Smelting/Refining	223	37%	21%	173	3,930
AZ	ASARCO LLC - HAYDEN SMELTER	Gila	Primary Copper Smelting/Refining	3,801	37%	21%	46	20,498
CO	Suncor	Adams	Petroleum Refinery	46	48%	13%	593	196
CT	Wheelabrator Bridgeport	Fairfield	Municipal Waste Combustor	12	36%	9%	1,096	120
FL	SEMINOLE ELECTRIC COOPERATIVE, INC.	Putnam	Electric Power Generation	338	28%	26%	2,203	4,563
FL	Northside	Duval	Electric Power Generation	297	45%	16%	2,864	1,917
FL	Big Bend	Hillsborough	Electric Power Generation	104	49%	16%	2,277	1,156
FL	Deerhaven	Alachua	Electric Power Generation	72	38%	23%	1,388	600
FL	MOSAIC FERTILIZER, LLC	Hillsborough	Phosphatic Fertilizer Manufacturing	44	49%	16%	171	1,487
FL	U.S. SUGAR CORPORATION	Hendry	Cane Sugar Manufacturing	26	66%	25%	1,326	171
FL	SUGAR CANE GROWERS CO-OP	Palm Beach	Cane Sugar Manufacturing	8	43%	14%	486	103
FL	OSCEOLA FARMS	Palm Beach	Cane Sugar Manufacturing	6	43%	14%	379	20
IN	United States Steel Corporation - Gary Works	Lake	Steel Mill Manufacturing	235	45%	17%	3,089	3,030
IN	Indiana Harbor East	Lake	Steel Mill Manufacturing	691	45%	17%	9,001	12,959
IN	Indiana Harbor West	Lake	Steel Mill Manufacturing	101	45%	17%	1,056	1,619
LA	R. S. Nelson	Calcasieu	Electric Power Generation	164	31%	17%	2,427	7,674
LA	Big Cajun II	Pointe Coupee	Electric Power Generation	207	39%	19%	1,989	6,021
MI	EES Coke	Wayne	Iron and Steel Mills and Ferroalloy Man	113	50%	24%	1,351	2,820
MI	US Steel Great Lakes Works	Wayne	Iron and Steel Mills and Ferroalloy Man	23	50%	24%	980	1,502
NC	PCS Phosphate	Beaufort	Fertilizer Plant	267	64%	30%	408	3,140
NC	Domtar Paper	Martin	Pulp and Paper Plant	118	64%	30%	1,806	770
OH	Cleveland-Cliffs (AK Steel)	Butler	Steel Mill	179	17%	13%	1,963	1,963
OR	Owens_Brockway	Multnomah	Glass Plant	23	29%	17%	404	118
TN	TVA Cumberland	Stewart	Electricity Generation via Combusti	536	8%	19%	3,380	6,649
TN	Trelleborg Coated Systems*	Hamblen	All Other Rubber Product Manufacturing	421	18%	21%	2	0
TN	Signal Mountain Cement	Hamilton	Cement Manufacturing	65	28%	14%	1,263	1
TN	O-N Minerals Company	Union	Lime Manufacturing	15	3%	23%	350	56
TN	Packaging Corporation of America	Hardin	Pulp and Paper Plant	62	8%	22%	1,416	616
TN	Tennessee Gas Pipeline, Station 860	Hickman	Compressor Station	29	9%	21%	1,484	0
WA	Ash Grove Cement	King	Cement Manufacturing	136	38%	11%	1,368	69
WA	Ardagh Glass	King	Glass Plant	12	38%	11%	153	99
WV	Harrison Coal Plant	Harrison	Electric Power Generation	1,047	5%	16%	5,575	11,270
WV	FORT MARTIN COAL POWER STATION	Monongalia	Electric Power Generation	815	11%	21%	9,388	4,234
WV	PLEASANTS COAL POWER STATION	Pleasants	Electric Power Generation	552	4%	16%	4,514	7,044
WV	MOUNTAINEER COAL PLANT	Mason	Electric Power Generation	384	3%	18%	3,579	4,600
WV	AMERICAN BITUMINOUS POWER-GRANT TOV	Marion	Electric Power Generation	204	7%	16%	1,672	1,964
WV	LONGVIEW COAL POWER PLANT	Monongalia	Electric Power Generation	191	11%	21%	1,532	2,158
WV	WEST VIRGINIA ALLOYS, INC.	Fayette	Iron and Steel Mills and Ferroalloy Man	130	7%	18%	1,066	1,121
WV	MORGANTOWN ENERGY FACILITY	Monongalia	Fossil Fuel Electric Power Generation	70	11%	21%	1,142	703
TX	SAN MIGUEL ELECTRIC PLANT	Atascosa	Electric Power Generation	153	65%	15%	2,267	8,940
TX	TEXARKANA MILL	Cass	Paper (except Newsprint) Mills	40	23%	19%	1,796	76
TX	ODESSA CEMENT PLANT	Ector	Cement Manufacturing	12	64%	12%	938	19
TX	NEWMAN STATION	El Paso	Electric Power Generation	89	87%	22%	1,875	9
TX	WA PARISH ELECTRIC GENERATING STATION	Fort Bend	Electric Power Generation	476	65%	8%	4,589	28,811
TX	CORNUDAS PLANT	Hudspeth	Pipeline Transportation of Natural Gas	8.3	81%	32%	362	5
TX	OXBOW CALCINING	Jefferson	All Other Petroleum and Coal Products M	174	58%	19%	609	11,495
TX	TOLK STATION	Lamb	Electric Power Generation	780	59%	20%	2,488	13,625
TX	LIMESTONE ELECTRIC GENERATION STATION	Limestone	Electric Power Generation	255	40%	21%	7,470	10,240
TX	JONES STATION POWER PLANT	Lubbock	Electric Power Generation	6	45%	19%	1,395	3
TX	SANDY CREEK ENERGY STATION	McLennan	Electric Power Generation	40	43%	19%	1,147	2,961
TX	STREETMAN PLANT	Navarro	Ground or Treated Mineral and Earth M	74	42%	20%	681	3,493
TX	HARRINGTON STATION POWER PLANT	Potter	Electric Power Generation	1,005	54%	21%	2,945	10,476
TX	OAK GROVE STEAM ELECTRIC STATION	Robertson	Electric Power Generation	219	42%	15%	4,535	6,974
TX	WELSH POWER PLANT	Titus	Electric Power Generation	407	53%	20%	4,951	11,178
TX	OKLAUNION POWER STATION	Wilbarger	Electric Power Generation	386	40%	16%	5,215	1,779
TX	KEYSTONE GAS PLANT	Winkler	Natural Gas Liquid Extraction	41	62%	17%	1,130	435

* Source with extremely high PM2.5 and PM10 emissions

The RHR requires that the state should consider evaluating major and minor stationary sources or groups of sources, mobile sources, and area sources.[213] The states ignore emissions from area sources, and some states even ignore area sources that impact both visibility and vulnerable communities. For example, Florida ignored area source emissions from agricultural sugar cane burning. Much of the sugar cane acreage burned is owned or controlled by the sugar cane mills. Therefore, performing Four-Factor Analyses would logistically be a relatively straightforward exercise.[214] Moreover, green harvesting using mechanical harvesters—that does not involve burning—is already implemented in Florida and in other states.[215]

Additionally, oil and gas area sources are a problem for Class I areas and vulnerable communities.[216] Texas is an example of a state that declined to evaluate all areas sources for Four-Factor Analyses,[217] despite areas sources being the largest category contributor of NOx, Volatile Organic Carbon (VOC), ammonia (NH3), and Particulate Matter, with most of NOx, VOC and SO2 emissions from the Oil and Gas sector.[218] Moreover, Texas Emissions Inventory fails to include significant flaring emissions and drastically undercounts the actual levels of SO_2 emissions from oil and gas area sources.[219]

EPA must reinforce the need for states to engage environmental justice communities, select sources—including area sources—with priority for those in/adjacent environmental justice communities, and most importantly direct states to require reductions from environmental justice sources

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[213] 40 C.F.R. §51.308(f)(2)(i).
[214] Comment Letter to Florida at 30.
[215] Comment Letter to Florida at 31-32.
[216] Examples of Class I areas currently or potentially impacted by oil and gas emissions, several of which also impact vulnerable communities, include but are not limited to: Theodore Roosevelt and Lostwood (i.e., Bakken Shale in eastern Montana and North Dakota); Wind Cave and Badlands (i.e., Powder River Basin in northeast Wyoming); Bridger and Fitzpatrick Wilderness Areas (i.e., Pinedale Anticline and Jonah Fields in western Wyoming); Mesa Verde (i.e., North and South San Juan Basin); Carlsbad Caverns and Guadalupe Mountains (i.e., Permian Basin in southeastern New Mexico and western Texas); Canyonlands and Arches (i.e., Uintah, Paradox, and Piceance Basins in Utah and Colorado); and Rocky Mountain (i.e., Denver-Julesburg Basin).
[217] Comment Letter to Texas at 24.
[218] Comment Letter to Texas at 24-25.
[219] Comment Letter to Texas at 25.

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b. For EGUs, transition from coal to natural gas should not be a solution for regional haze.

EPA must ensure that long-term strategies include appropriate measures to prevent *future* impairment of visibility in mandatory class I Federal areas.[220] Reductions achieved with controls for some pollutants will be the same as those obtained with conversion from coal to natural gas. If a switch to natural gas takes place, the state must consider and require controls (*e.g.*, SCR for turbines). Controls should be required upfront reflecting low rates and should be required at a new facility or at a facility that switches fuel. As discussed above in section 2.e, fuel switch conversion should include permit (PSD) reviews and Four-Factor Analyses.

c. Retired or under-utilized EGUs are now being used to supply energy for onsite bitcoin mining – EPA must address this head on.

Some EGUs (*e.g.*, using waste coal, peaking units and other stationary and mobile sources) were previously running at a very low capacity (or not running at all) but are now run at high capacity for bitcoin mining. States do not appear to be considering the impacts from these sources on Class I areas and environmental justice communities in their permitting and oversight/enforcement activities. Indeed, where these sources are already permitted, the state RH SIPs assume—without enforceable limitations—that these sources will continue to operate at a lower capacity. Furthermore, as explained in the above issue, when a state considers whether to permit a new source or modification, it must apply the regional haze reasonable progress Four-Factor Analysis requirements and not conduct new source permitting in a vacuum. The proliferation of these bitcoin mining sources throughout the states undermines progress of the RH program. EPA should develop a strategic policy and initiatives to address this growing problem and ensure it is applied uniformly in regional haze SIP revisions.

d. Requiring States to Incorporate Planned Retirements as Enforceable SIP Provisions, as Required by the Clean Air Act, Would Result In Significant Reductions of Greenhouse Gas Emissions.

As noted, numerous states have declined or refused to impose emission reduction measures that would satisfy a Four Factor Analysis—and in some instances, refused to even evaluate controls—based on projected source retirements or reductions in utilization. The Clean Air Act, however, 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 Regional Haze Rule similarly requires each state to include "enforceable emission limitations" as necessary to ensure reasonable progress

[220] 42 U.S.C. § 7491(a)(1).

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toward the national visibility goal.[221] Thus, EPA must make clear that, where the state relies on a sources' plans to permanently cease operations or reduction in utilization to ensure reasonable progress or to avoid any control analysis, the state "must" make those parameters or assumptions into enforceable emission limitations in the SIP itself. [222] Including planned retirements as enforceable SIP provisions is not only required under the Clean Air Act and the Regional Haze Rule itself, but would result in significant greenhouse gas emission reductions and other pollution co-benefits.

Conclusion

EPA must ensure that second round haze plans comply with all legal requirements and deliver on the Clean Air Act goal of restoring natural visibility conditions to our nation's treasured national parks and wilderness areas. We strongly recommend that EPA issue findings of failure to submit by January 31, 2022, and take final action on all SIPs (or FIPs) a rolling basis, by August 2023. Moreover, EPA should not delay: once it determines a SIP is deficient,[223] the agency should begin developing a FIP. Please feel free to contact us if you need additional information or have any questions regarding the contents of this letter.

Sincerely,

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[221] *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.")

[222] 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* August 2019 Guidance at 22 ("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.").

[223] Furthermore, EPA must use its authority and reject incomplete SIPs and send them back to the states for completion. Good government and efficient use of public resources dictate the agency should not use resources in moving forward with an action knowing it is not approvable.

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