October 14, 2025

Via Electronic Mail: epdcomments@dnr.ga.gov
Steve Allison, Program Manager
Stationary Source Permitting Program
Air Protection Branch
Environmental Protection Division
4244 International Parkway, Suite 120
Atlanta, GA 30354

RE: Public Comments on Proposed Air Permit No. 4911-015-0011V-05-1 for Expansion of the Bowen Steam-Electric Generating Plant

Dear Mr. Allison:

The Southern Environmental Law Center, Sierra Club, Environment Georgia, Georgia Interfaith Power & Light, and National Parks Conservation Association submit these comments on Proposed Part 70 Operating Permit Amendment No. 4911-015-0011V-05-1 (Application No. 905935) for the proposed expansion of the Southern Company/Georgia Power ("Georgia Power") Bowen Steam-Electric Generating Plant in Bartow County ("Plant Bowen"), for which the Georgia Environmental Protection Division ("EPD") is currently soliciting public comments. The draft permit, which seeks to apply Georgia's Clean Air Act Prevention of Significant Deterioration ("PSD") preconstruction permitting requirements, would authorize Georgia Power to install and operate four dual-fuel combined-cycle electric generating units, four methane gas-fired fuel heaters, six emergency generators, four emergency fire water pump engines, four cooling towers, and four 2.3 million-gallon distillate oil storage tanks.[1]

According to EPD's Preliminary Determination, the potential annual emissions increases from the proposed expansion of Plant Bowen are: 828.1 tons of nitrogen oxides (NO_X), 650.9 tons of volatile organic compounds (VOC), 464 tons of particulate matter with a diameter of 10 micrometers or smaller (PM_{10}), 462 tons of particulate matter with a diameter of 2.5 micrometers

[1] Ga. Env't Prot. Div., Draft Air Quality–Part 70 Operating Permit Amendment for Bowen Steam-Electric Generating Plant [hereinafter "Draft Permit"] (Sept. 14, 2025).

or smaller ($PM_{2.5}$), 143.1 tons of sulfur dioxide (SO_2), 1,047.8 tons of carbon monoxide (CO), and more than 11 million tons of greenhouse gases (CO_2e).[2] These are massive emission increases, particularly for ozone precursors (NO_X and VOC) and fine particulate matter ($PM_{2.5}$).

Atlanta is designated as a maintenance area for the primary 8-hour National Ambient Air Quality Standard ("NAAQS") for ozone, but certified 2024 monitoring data reveals that the Atlanta area is once again exceeding this federal health-based standard. Similarly, the latest certified monitoring data shows the Atlanta area is exceeding the primary annual NAAQS for $PM_{2.5}$. Issuing this permit without stronger control requirements and enforceable emission offsets would risk worsening these existing NAAQS exceedances, contrary to the Clean Air Act's preventive intent.

For the reasons set forth below, we urge EPD to deny Georgia Power's permit application. If EPD nonetheless chooses to move forward with permitting this misguided plant expansion, EPD must (1) require Georgia Power to submit a new application that corrects the deficiencies identified below and (2) offer a renewed opportunity for public notice and comment on both the revised application and on any new or revised draft permit in accordance with Title V and PSD requirements.

I. Residents of the Atlanta Metropolitan Area Already Suffer from Exposure to Unhealthy Levels of Smog and Soot Pollution.

The Clean Air Act requires the U.S. Environmental Protection Agency ("EPA") to adopt a "primary" ambient air quality standard for each criteria pollutant by establishing a maximum ambient concentration that EPA determines "[is] requisite to protect the public health," while allowing for "an adequate margin of safety."[3] Exposure to concentrations of air pollutants above these standards is presumptively unhealthy. Unfortunately, certified air monitoring data collected throughout the Atlanta metropolitan area shows that local residents are currently being exposed to unhealthy levels of smog and soot pollution. EPD's approval of the proposed expansion of Plant Bowen would result in significant increases in these pollutants and thus exacerbate the area's poor air quality and its adverse impacts on public health.

A. The Atlanta Area is Violating the Primary 8-Hour NAAQS for Ozone.

Georgia Power's proposed project would increase Plant Bowen's potential annual emissions by more than 800 tons of NO_X and more than 600 tons of VOC. These pollutants react with heat and sunlight to form ground-level ozone, also known as smog.[4] Exposure to ozone pollution is known to cause a variety of adverse health effects, including inflammation of the airways, increased risk of lung infection, aggravated respiratory diseases such as emphysema and

[2] Ga. Env't Prot. Div., Prevention of Significant Air Quality Deterioration Review: Preliminary Determination 3 tbl.1-3 (July 28, 2025) [hereinafter "Preliminary Determination"].
[3] 42 U.S.C. § 7409(b)(1); *see also* 40 C.F.R. § 50.2(b) (2024) ("National primary ambient air quality standards define levels of air quality which the [EPA] Administrator judges are necessary, with an adequate margin of safety, to protect the public health.").
[4] *Ground-level Ozone Basics*, EPA (Mar. 11, 2025), https://perma.cc/K7PP-CHUZ.

chronic bronchitis, and increased frequency of asthma attacks.[5] These respiratory symptoms may be caused by exposure to ozone "even at relatively low levels and for brief periods of time."[6] Ozone exposure is particularly harmful for "people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers."[7]

In 2015, EPA adopted a revised primary NAAQS for ozone, increasing the stringency of the standard from 75 parts per billion (ppb) to 70 ppb ("2015 Ozone NAAQS").[8] EPA explained that the revised standard would help protect "children, older adults, and people with asthma or other lung diseases, and other at-risk populations against an array of adverse health effects that include reduced lung function, increased respiratory symptoms and pulmonary inflammation; effects that contribute to emergency department visits or hospital admissions; and mortality."[9]

In 2018, EPA formally designated the Atlanta metropolitan area as in nonattainment of the 2015 Ozone NAAQS.[10] The designated nonattainment area was comprised of the following counties: Bartow, Clayton, Cobb, DeKalb, Fulton, Gwinnett, and Henry.[11] As a result, EPD was required to initiate a series of regulatory actions to reduce emissions of ozone precursors and bring the area into attainment of the revised standard within three years.[12] Among other things, EPD was required to implement the Clean Air Act's more protective preconstruction permitting requirements for new and modified major stationary sources in the nonattainment area, referred to as the Nonattainment Area New Source Review ("NAA-NSR") program.[13] As required by the Clean Air Act, Georgia's NAA-NSR program required sources to, among other things, (1) reduce air pollutants for which the area is in nonattainment to the "lowest achievable emissions rate," (2) obtain offsetting emission reductions that are greater than the emissions increase caused by the new source or modification, and (3) provide for public notice and an opportunity to comment on the draft NAA-NSR permit.[14]

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[5] *Health Effects of Ozone Pollution*, EPA (Mar. 13, 2025), https://perma.cc/LN7X-22DX; *see also* National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65,292, 65,303–08 (Oct. 26, 2015).
[6] Designation of Areas for Air Quality Planning Purposes; State of California; Redesignation of the San Francisco Bay Area to Nonattainment for Ozone, 63 Fed. Reg. 37,258, 37,265 (July 10, 1998).
[7] *Health Effects of Ozone Pollution*, EPA (Mar. 13, 2025), https://perma.cc/LN7X-22DX; *see also* National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. at 65,310–11.
[8] National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. at 65,293, 65,294, 65,296 n.6.
[9] *Id.* at 65,294.
[10] *See* Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 Fed. Reg. 25,776, 25,797 (June 4, 2018).
[11] *See id.*; *see also* Ga. Env't Prot. Div., *Ozone State Implementation Plans (SIPs): 2015 Standard—Atlanta Map*, EPD (Oct. 4, 2019), https://perma.cc/M2M6-59JA.
[12] *See* Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 Fed. Reg. at 25,777 ("State areas designated as nonattainment are subject to planning and emission reduction requirements as specified in [Clean Air Act] part D."); Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area Classifications Approach, 83 Fed. Reg. 10,376, 10,380 tbl.2 (Mar. 9, 2018) (establishing a "Maximum attainment date" of three years after the effective date of designation as a marginal nonattainment area); *see generally* Implementation of the 2015 National Ambient Air Quality Standards for Ozone: Nonattainment Area State Implementation Plan Requirements, 83 Fed. Reg. 62,998 (Dec. 6, 2018).
[13] 42 U.S.C. § 7503.
[14] Ga. Comp. R. & Regs. 391-3-1-.03(8)(c)–(e), (g), *available at EPA Approved Statutes and Regulations in Georgia SIP*, EPA, https://perma.cc/JJ9S-XNYP (last visited 10/7/2025).

In 2022, following significant ozone pollution reductions during the COVID-19 pandemic shutdowns, Atlanta's ozone monitors showed the area to be meeting the 2015 standard. Thus, EPD requested that EPA redesignate the Atlanta area as in attainment of the 2015 Ozone NAAQS. As required by Clean Air Act section 175A, EPD submitted a proposed plan for maintaining compliance (a "Maintenance Plan") to EPA for approval.[15] In response to EPD's request, EPA redesignated the Atlanta area as attainment and incorporated the Maintenance Plan into Georgia's federally enforceable State Implementation Plan ("SIP").[16]

The approved Maintenance Plan sets forth various "contingency measures that would promptly be implemented by the state" to "provide further emission reductions if violations of the 8-hour ozone NAAQS occur after redesignation to attainment."[17] Importantly, EPD explains in the Maintenance Plan that "the minimum requirement for contingency measures is the implementation of all measures that were contained in the SIP before the redesignation."[18] In addition, the Maintenance Plan identifies various additional measures that EPD may choose to impose to address an ozone NAAQS violation, including "Reasonably Available Control Measures" and "Reasonably Available Control Technology" requirements for sources of VOC and NO_X emissions.[19] The Maintenance Plan states that if the Atlanta area violates the ozone standard, in addition to implementing all measures contained in the SIP prior to redesignation, EPD "commits to implement within 24 months . . . *or as expeditiously as practicable, whichever is earlier*, at least one" of the listed control measures "or other contingency measures that may be determined to be more appropriate based on the analyses performed."[20]

In the summer of 2024, air quality at several Atlanta air quality monitors deteriorated, resulting in repeated exceedances of the 2015 Ozone NAAQS. As a result, based on 2022–2024 data, design values for both the Fulton and Henry County air quality monitors are 72 ppb, exceeding the 2015 Ozone NAAQS of 70 ppb. The exceedances contributing to these design values occurred between June 11 and August 13, 2024.[21] EPA's compilation of certified ambient air quality monitoring data now shows the Atlanta area has a 2022–2024 design value of 72 ppb.[22] EPA's spreadsheet specifically identifies the Atlanta area as not currently meeting the 2015 Ozone NAAQS.[23] Figure 1, below, shows the sharp increase in ozone pollution in the Atlanta area over the past few years:

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[15] *See* Letter from Richard E. Dunn, Dir. of Ga. Env't Prot. Div., to Daniel Blackman, Regional Administrator for U.S. Env't Prot. Agency Region 4 (Feb. 25, 2022), https://perma.cc/ZB29-NJEX; Ga. Env't Prot. Div., *Final Submittal for Georgia's Redesignation Request and Maintenance Plan for the Atlanta Ozone Nonattainment Area for the 2015 8-Hour Ozone NAAQS* (Feb. 25, 2022) [hereinafter "Maintenance Plan"], https://perma.cc/U89E-HJ6C.
[16] *See* Air Plan Approval and Air Quality Designation; GA; Redesignation of the Atlanta, Georgia 2015 8-Hour Ozone Nonattainment Area to Attainment, 87 Fed. Reg. 62,733, 62,734 (Oct. 17, 2022).
[17] Maintenance Plan at 50.
[18] *Id.* at 52.
[19] *Id.*
[20] *Id.* (emphasis added).
[21] *Ambient Air Monitoring Program: Georgia's Air Quality—Violations*, GEORGIAGOV, https://perma.cc/L66A-KL5U (last visited Oct. 13, 2025).
[22] *See* EPA, *Ozone Design Values, 2024 (xlsx)*, tbl.1a, cell E7 (May 28, 2025), https://perma.cc/A776-STBV (click *Ozone Design Values, 2024 (xlsx)* hyperlink).
[23] *See id.* at tbl.1a, cell F7.

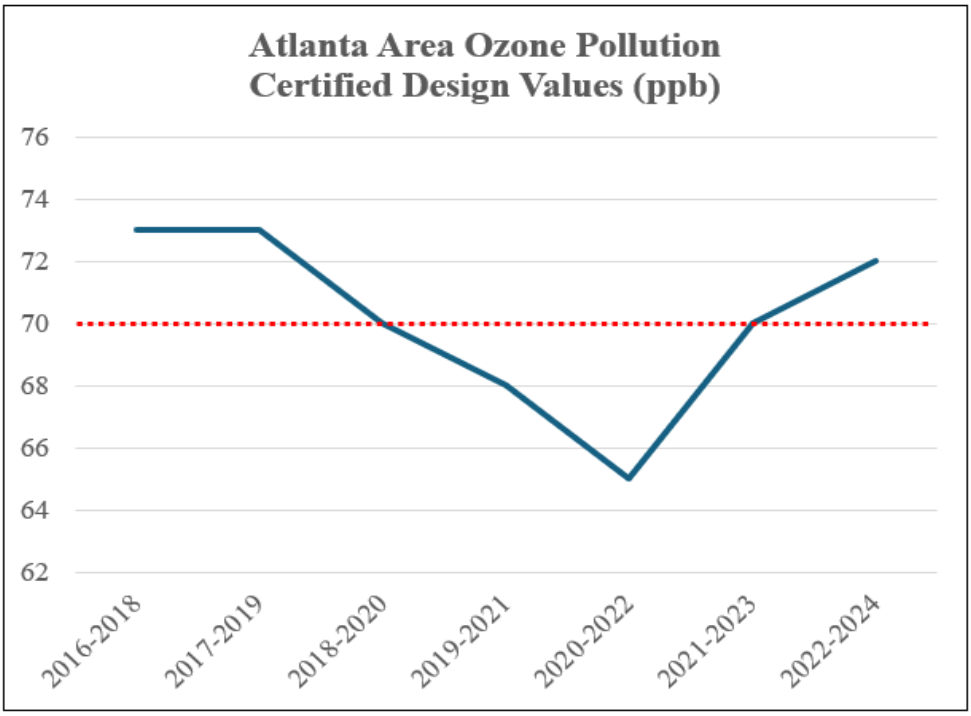

Figure 1: Atlanta Area Ozone Design Values, 2018 to 2024 [24]

On May 6, 2025, EPD's Air Protection Branch hosted a "Community Open House" for members of the public to learn about the agency's work.[25] In response to a question about recent monitoring data showing exceedances of the 2015 Ozone NAAQS, Branch Chief Jim Boylan confirmed the Atlanta area has fallen back into nonattainment for ozone, triggering EPD's obligation to implement the Maintenance Plan's contingency measures.

B. The Atlanta Area is Currently Exceeding the Primary Annual NAAQS for $PM_{2.5}$, a Pollutant for Which There is No Safe Exposure Level.

Georgia Power's proposed project would increase Plant Bowen's potential annual emissions by more than 400 tons of $PM_{2.5}$, also known as soot. Exposure to soot pollution is known to have a "causal relationship" with mortality, primarily due to its effects on the cardiovascular and respiratory systems.[26] In addition to being deadly for certain individuals, soot exposure can cause nonfatal heart attacks, decrease lung function, and aggravate respiratory conditions such as asthma and irritation of the airways.[27] This pollutant is also "the main cause

[24] *See id.* at tbl.3a, cells F7–L7.
[25] Flyer from Ga. Env't Pot. Div. to the Public regarding a May 6, 2025, Community Open House discussing "What EXACTLY does the GA EPD Air Protection Do?, available at https://perma.cc/L25W-4569.
[26] *See* Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,202, 16,224–25, 16,277 (Mar. 6, 2024).
[27] *Health and Environmental Effects of Particulate Matter (PM)*, EPA (May 23, 2025), https://perma.cc/3YVW-RCU5.

of reduced visibility (haze) in parts of the United States, including many of our treasured national parks and wilderness areas."[28]

In 2024, EPA adopted a revised primary annual NAAQS for $PM_{2.5}$, increasing the stringency of the standard from 12.0 micrograms per cubic meter ($\mu g/m^3$) to 9.0 $\mu g/m^3$.[29] EPA explained that the revised standard would provide significant public health benefits, including the prevention of up to 4,500 premature deaths, 800,000 cases of asthma symptoms, and 290,000 lost workdays by 2032.[30]

The adoption of a revised NAAQS triggers a mandatory process by which EPA must designate areas as in attainment or nonattainment of the revised standard. EPA's designation will be based on 2022–2024 design values, which were certified and submitted to EPA in May 2025. EPA's compilation of certified ambient air quality monitoring data shows the Atlanta area has a 2022–2024 $PM_{2.5}$ design value of 9.4 $\mu g/m^3$—in violation of the revised standard.[31]

In an attempt to prevent EPA from formally designating portions of the Atlanta area as nonattainment for annual $PM_{2.5}$, EPD recently prepared "exceptional events demonstrations" that propose to exclude data collected at two monitoring sites (Forest Park and Gwinnett Tech) on certain days in 2023 when the agency claims that air quality was "impacted" by smoke from Canadian wildfires.[32] Both of these sites have a certified 2022–2024 design value of 9.1 $\mu g/m^3$. In the event that EPA concurs with EPD's proposal to exclude certain data from 2023, the 2022–2024 design values for these monitors will decrease to 9.0 $\mu g/m^3$.

However, EPD did not prepare an exceptional events demonstration for the other $PM_{2.5}$ monitors in the Atlanta area, including the NR-GA Tech and Kennesaw monitors. The NR-GA Tech monitor is active and has a certified 2022–2024 design value of 9.4 $\mu g/m^3$. And although the Kennesaw monitor ceased operation in January 2025, it recorded sufficient data in the preceding years to yield a certified 2022–2024 design value of 8.7 $\mu g/m^3$. The Kennesaw monitor is located 20 miles to the southeast of Plant Bowen and is arguably the most representative of air quality in the vicinity of the project site. Although its 2022–2024 design value is just below the revised NAAQS, it is still well above the level that many scientists advocated for in the latest review of the $PM_{2.5}$ NAAQS.[33] In fact, there is no level of exposure to $PM_{2.5}$ that scientists agree is protective of public health.[34]

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[28] *Id.*

[29] Reconsideration of the National Ambient Air Quality Standards for Particulate Matter 89 Fed. Reg. at 16,202.

[30] EPA, *Final Rule to Strengthen the National Air Quality Health Standard for Particulate Matter: Fact Sheet*, at 1 (Feb. 7, 2024), https://perma.cc/6EFQ-WN2G.

[31] *See* EPA, *$PM_{2.5}$ Design Values, 2024 (xlsx)*, tbl.1c, cell D5 (May 28, 2025), https://perma.cc/A776-STBV (click *PM2.5 Design Values, 2024 (xlsx)* hyperlink).

[32] *See* Ga. Env't Prot. Div., *Canadian Wildfire Exceptional Event Demonstration for the 2024 Annual $PM_{2.5}$ NAAQS at Gwinnett Tech, GA in 2022–2024* (Sept. 19, 2025), https://perma.cc/X7UJ-TVDB; Ga. Env't Prot. Div., *Canadian Wildfire Exceptional Event Demonstration for the 2024 Annual $PM_{2.5}$ NAAQS at Forest Park, GA in 2022–2024* (Sept. 19, 2025), https://perma.cc/B467-388L.

[33] *See generally* Reconsideration of the National Ambient Air Quality Standards for Particulate Matter, 89 Fed. Reg. 16,255, 16,255–16,291 (Mar. 6, 2024)

[34] *See* Yuantong Sun et al., *Short Term Exposure to Low Level Ambient Fine Particulate Matter and Natural Cause, Cardiovascular, and Respiratory Morbidity Among US Adults with Health Insurance: Case Time Series Study*, BJM

II. Pursuant to the Maintenance Plan for the Atlanta Area, Georgia Power Must Obtain a Nonattainment New Source Review Permit Addressing Air Pollution Related to Ozone Formation.

Pursuant to the Clean Air Act and the Ozone Maintenance Plan incorporated into Georgia's SIP, Georgia Power may not lawfully commence construction of the proposed Plant Bowen expansion until it obtains a nonattainment new source review ("NAA-NSR") permit addressing ozone precursor pollutants (NOx and VOCs).

Clean Air Act section 175A(d) provides that the contingency provisions in a state maintenance plan must "include a requirement that the State will implement all measures with respect to the control of the air pollutant concerned which were contained in the State implementation plan for the area before redesignation of the area as an attainment area."[35] Consistent with that statutory requirement, Georgia's ozone Maintenance Plan declares that the contingency measures include "implementation of all measures that were contained in the SIP before the redesignation," and further explains that as of the date EPD submitted its Maintenance Plan to EPA, "all such measures [were] in effect for the Atlanta Area."[36] Georgia's SIP included the full set of NAA-NSR permitting requirements at the time the Atlanta area was redesignated.[37] Moreover, while EPD's Maintenance Plan does not specifically identify the "measures" that kick in as contingency provisions, NAA-NSR requirements plainly qualify.

First, NAA-NSR permitting requirements undoubtedly constitute a "measure[] with respect to the control of the air pollutant concerned" as referenced in Clean Air Act section 175A.[38] The plain meaning of "measure[]" as it is used in Clean Air Act section 175A(d) is "a step planned or taken as a means to an end."[39] There simply is no room for doubt that Georgia's NAA-NSR provisions serve "as a means to" achieving the fundamental goal of controlling ozone pollution so that Atlanta can attain compliance with the 2015 Ozone NAAQS. Second, classifying NAA-NSR permitting requirements as a contingency measure is consistent with Clean Air Act section 175A's purpose: requiring new and modified sources to reduce ozone-forming pollutants to the lowest achievable level and obtain offsetting emission reductions will help to promptly restore Atlanta to attainment with the 2015 Ozone NAAQS.

EPD's Maintenance Plan declares that EPD must implement contingency measures in the event of a "Tier II trigger," which the Plan defines as occurring "when any quality assured ozone

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(2024), https://perma.cc/4LY8-6H7P (concluding that the study "corroborates the conclusion that probably no safe level of $PM_{2.5}$ exists").

[35] 42 U.S.C. § 7505a(d).

[36] Maintenance Plan at 51–52.

[37] Ga. Comp. R. & Regs. 391-3-1-.03(8)(c)–(e), (g), *available at EPA Approved Statutes and Regulations in Georgia SIP*, EPA, https://perma.cc/JJ9S-XNYP (last visited 10/7/2025); *see also* Air Plan Approval; Georgia; 2015 8-Hour Ozone Nonattainment New Source Review Permit Program Requirements, 87 Fed. Reg. 3,677 (Jan. 25, 2022) ("EPA is approving Georgia's certification that its existing Nonattainment New Source Review (NNSR) permitting regulations meet the nonattainment planning requirements for the 2015 8-hour ozone National Ambient Air Quality Standards (NAAQS) for the Atlanta Area, comprised of the counties of Bartow, Clayton, Cobb, DeKalb, Fulton, Gwinnett, and Henry.").

[38] 42 U.S.C. § 7505a(d).

[39] *Measure*, MERRIAM-WEBSTER, https://perma.cc/8MMN-2TCC (definition 7).

design value is equal to or greater than 0.071 ppm at a monitor in the Atlanta Area."[40] EPD also defined the Tier II "trigger date" as "60 days from the date that the state observes a 4th highest value that, when averaged with the two previous ozone seasons' fourth highest values, would result in a three-year average equal to or greater than 0.071 ppm."[41]

Indisputably, the "Tier II trigger" has occurred for the Atlanta area.[42] Thus, EPD is obligated to implement the Maintenance Plan's contingency measures. Under Clean Air Act section 175A(d), EPD must "promptly correct any violation of the standard" following redesignation.[43] While the Maintenance Plan provides EPD with as long as 24 months after the Tier II trigger to implement a control measure that needs to be selected and adopted after the Tier II trigger occurs, that extended timeline does not apply to pre-redesignation measures such as NAA-NSR preconstruction permitting requirements that are already part of Georgia's federally enforceable SIP. Rather, the NAA-NSR provisions in Georgia's SIP are immediately operative once the Tier II trigger occurs and must be applied expeditiously.

III. To Protect the Public from Exposure to Unhealthy Ground-Level Ozone Pollution that Violates the NAAQS, EPD Must Require Georgia Power to Comply with the Lowest Achievable Emissions Rate and Obtain Emission Offsets.

Even if EPD disagrees that Clean Air Act section 175A(d) and Georgia's ozone Maintenance Plan require EPD to implement Georgia's NAA-NSR requirements as a contingency measure, EPD should nonetheless require Georgia Power to reduce its ozone-forming emissions to the lowest achievable emissions rate and offset its emissions of such pollutants at a ratio of at least 1.1 : 1, as would otherwise be required if the plant expansion were permitted under the NAA-NSR rules.[44] Given the magnitude of the proposed project's increase in potential emissions, allowing construction of the Plant Bowen expansion without requiring these pollution-reduction measures would drive the Atlanta area further into noncompliance with the 2015 Ozone NAAQS and put more Atlanta area residents at risk of serious adverse health effects.

EPD has ample legal authority to require Georgia Power to obtain emission offsets and minimize emissions to the lowest achievable emissions rate. First, EPD is obligated to ensure that the Plant Bowen expansion will not cause or contribute to a NAAQS violation.[45] Second, EPD has the legal authority to include in the Plant Bowen permit "more stringent emission limitations or other requirements . . . as deemed necessary by the [EPD] Director to . . . safeguard the public health, safety and welfare of the people of the State of Georgia."[46] And finally, as discussed above, EPD's federally approved Maintenance Plan requires EPD to "promptly" address Atlanta's ozone violations and select and implement contingency measures "as

[40] Maintenance Plan at 51–52.
[41] *Id.*
[42] *See supra* notes 21–25.
[43] 42 U.S.C. § 7505a(d).
[44] Ga. Comp. R. & Regs. 391-3-1-.03(8)(c)(15)(iv), *available at EPA Approved Statutes and Regulations in Georgia SIP*, EPA, https://perma.cc/JJ9S-XNYP (last visited 10/7/2025).
[45] Ga. Comp. R. & Regs. 391-3-1-.03(8)(a).
[46] Ga. Comp. R. & Regs. 391-3-1-.02(2)(a)(3)(ii).

expeditiously as practicable."[47] EPD could easily establish these source-specific requirements in this permit proceeding and submit them for EPA's approval as contingency measures to be incorporated into Georgia's SIP.

While there likely are a multitude of ways that Georgia Power could offset the significant increase in air pollution that would result from the proposed Plant Bowen expansion, one approach available for achieving NOx emission offsets would be to optimize NOx controls on existing coal-fired units at Plant Bowen and existing methane-gas-fired units at Plant McDonough:

- ***NOx Emission Reduction Opportunities at Existing Plant Bowen Units:*** The formation of NOx from the four existing coal units at Plant Bowen is reduced through the use of combustion controls consisting of low NOx burners and separated overfired air. Add-on Selective Catalytic Reduction ("SCR") systems are employed to further reduce NOx from exhaust gases. Data reported to EPA's Clean Air Markets division from 2020 through 2024 indicate that the existing SCR systems are generally operated to minimize NOx emissions during the May-September ozone season, but monthly average emission rates vary substantially, with some months achieving as low as 0.05 lbs/MMBtu while other months have a NOx emission rate of 0.07 lbs/MMBtu or higher.[48] The coal-fired units operate at much lower control rates (i.e., higher NOx emission rates) during the rest of the year.

  To provide a general assessment of the quantity of NOx that could be reduced from these coal-fired units during months when high ambient ozone concentrations are more likely (April through October), commenters calculated emission reductions by using actual heat input levels during these months from 2020 to 2024 and an assumed monthly NOx emission rate of 0.060 lbs/MMBtu for each of these months. Based on this historical heat input data and applying the 0.06 lbs/MMBtu emission rate (which has been achieved at the facility by optimizing SCR operations during the ozone season), the monthly average NOx emissions during this period would be reduced from 358 tons/month to 276 tons/month, or 2.7 tons/day on average.

- ***NOx Emission Reduction Opportunities at Existing Plant McDonough Units:*** Like the existing Plant Bowen units, the NOx controls at Plant McDonough can be optimized to achieve lower emission rates. The graph below shows annual NOx control rates for Unit 4a since the unit began operation in 2017. In 2017, the annual emission rate for NOx was less than 0.006 lbs/MMbtu, but the controls were operated at much lower control efficiencies in subsequent years, resulting in the NOx emission rate rising to nearly 0.009 lbs/MMbtu in subsequent years (see the graph below). The same pattern is seen in the data for the other five combined cycle units at this facility. Therefore, it appears that optimized NOx emission controls could be operated at this facility to reduce emissions by approximately 30% below what is currently being emitted.

[47] *See supra* notes 40–41, 43.
[48] Monthly average NOx emission rates from Georgia Power's Plant Bowen from 2020-2024, produced using EPA Clean Air Markets Division Data available at https://campd.epa.gov/data/custom-data-download.

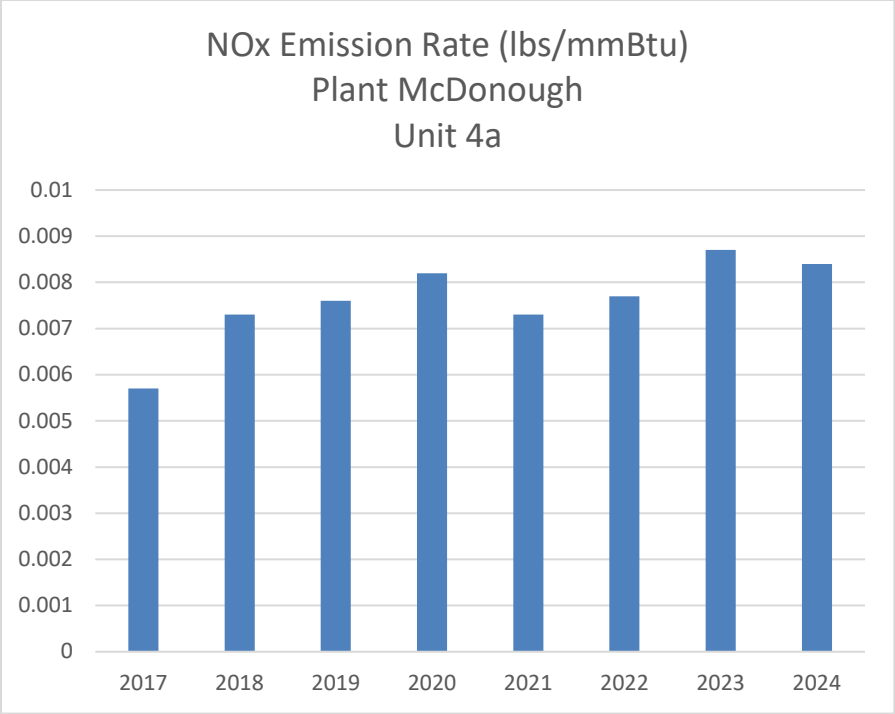

Figure 2: NOx emission rates from Georgia Power's Plant McDonough Unit 4a from 2017-2024[49]

Regarding Plant Bowen's coal-fired units, another—and better—option would be for Georgia Power simply to retire them. These highly polluting units were built in the 1970s and have been in operation for more than fifty years. At a minimum, EPD and Georgia Power should place strict limits on the hours of operation of these units. As indicated in the graphs below, in the last four years, the coal-fired units at Plant Bowen have operated at less than half of historical generation rates, and NOx emissions in recent years have ranged between 4,800 and 6,300 tons per year. If these units were to return to historical operation levels, NOx emissions would be expected to rise as high as 14,000 tons per year, assuming similar operation of existing NOx controls. Given current trends in ozone levels in the Atlanta area, such a significant increase would almost certainly interfere with EPD's ability to attain and maintain compliance with the NAAQS.[50]

[49] Produced using EPA Clean Air Markets Division Data available at https://campd.epa.gov/data/custom-data-download.

[50] Continued operation of the four coal-fired units at Plant Bowen likely will require significant capital investments. Such projects could result in Major Modifications under the Prevention of Significant Deterioration or the Nonattainment New Source Review regulations.

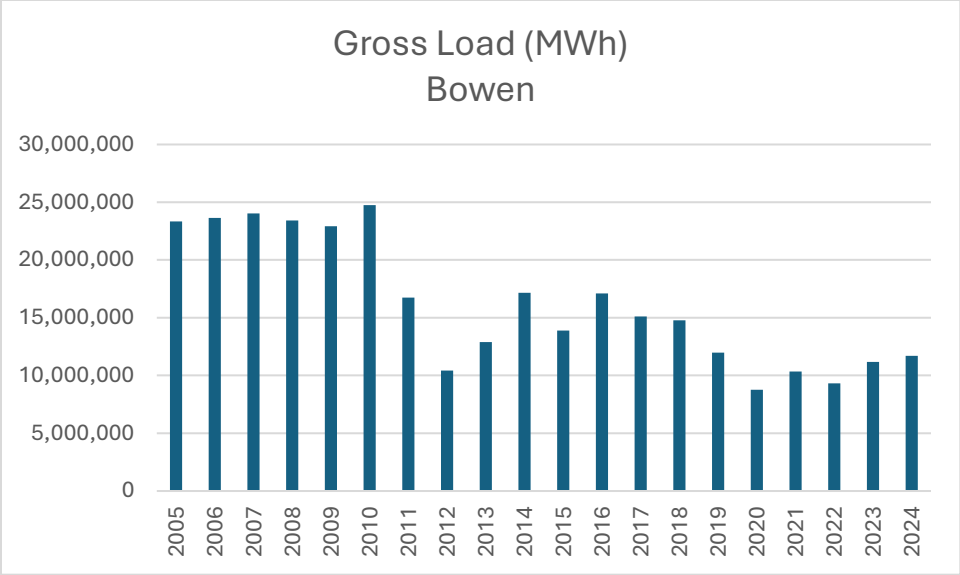

Figure 3: Operation of Plant Bowen coal-fired unit from 2005 to 2024[51]

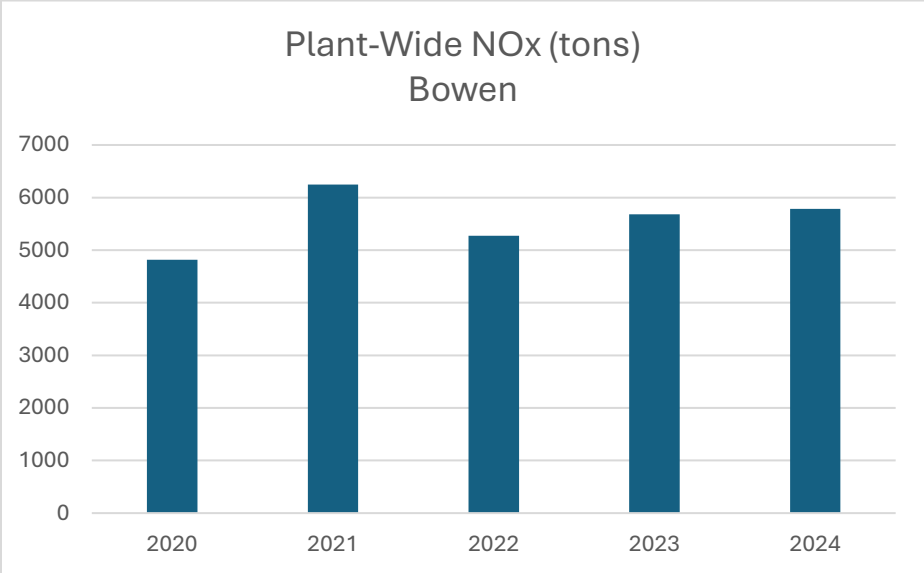

Figure 4: Operation of Plant Bowen coal-fired unit from 2005 to 2024[52]

In order to rely on NOx emission reduction measures at Plant Bowen and/or other sources in the Atlanta area to offset the significant increase in NOx emissions associated with the proposed expansion, those measures must be permanent and legally and practically enforceable.

[51] Produced using EPA Clean Air Markets Program data available at https://campd.epa.gov/data/custom-data-download.
[52] Produced using EPA Clean Air Markets Program data available at https://campd.epa.gov/data/custom-data-download.

IV. The Permitting Record Does Not Support EPD's Determination that the Proposed Expansion of Plant Bowen Will Not Cause or Contribute to Violations of National Ambient Air Quality Standards.

EPD cannot lawfully issue "any permit" authorizing construction of a project that would "cause or contribute to a failure to maintain any ambient air quality standard."[53] In addition, federal and state law provide that EPD cannot approve an application for a permit subject to PSD review, such as this one, unless the permittee demonstrates that emissions from the proposed project "will not cause, or contribute to, air pollution in excess of any . . . national ambient air quality standard in any air quality control region."[54]

Because the Atlanta metropolitan area is already in violation of the 2015 Ozone NAAQS, and because the proposed project would significantly increase Plant Bowen's emissions of ozone precursors (NO_X and VOC), it is undeniable that the modification would contribute to the ongoing ozone NAAQS violation. Similarly, because the Atlanta metropolitan area is currently exceeding the $PM_{2.5}$ annual NAAQS, and because the proposed project would significantly increase Plant Bowen's emissions of $PM_{2.5}$, the modification would cause or contribute to a violation of that NAAQS as well. As a result, EPD cannot issue the permit as currently drafted. EPD must either deny the permit application or substantially revise the draft permit as needed to ensure that it does not authorize emissions that will result in violations of these federal health-based standards.

A. Georgia Power Bears the Burden of Demonstrating Its Project Will Not Cause or Contribute to NAAQS Violations.

Pursuant to 42 U.S.C. section 7475(a)(3), Georgia Power must "demonstrate[] . . . that emissions from construction or operation" of the proposed modification "will not cause, or contribute to, air pollution in excess of" the "maximum allowable increase" (also known as the PSD increment) or "any . . . [NAAQS] in any air quality control region."[55] This compliance

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[53] Ga. Comp. R. & Regs. 391-3-1-.03(8)(a); *see also* 42 U.S.C. § 7410(j) (establishing "[a]s a condition for issuance of any permit" that the permittee must demonstrate "the construction or modification and operation of such source will be in compliance with all other requirements" of the Clean Air Act); Ga. Comp. R. & Regs. 391-3-1-.03(8)(b) (prohibiting issuance of a permit unless the proposed project "meets all the requirements for review and for obtaining a permit prescribed in Title I, Part C of the Federal [Clean Air] Act").

[54] 42 U.S.C. § 7475(a)(3); *see also* 40 C.F.R. § 51.166(k)(1) (requiring State Implementation Plans to require the proponent of a major modification to "demonstrate that allowable emission increases" from the proposed project "would not cause or contribute to air pollution in violation of: (i) Any national ambient air quality standard in any air quality control region"); *id.* § 52.21(k)(1) (requiring the proponent of a major modification to "demonstrate that allowable emission increases" from the proposed project "would not cause or contribute to air pollution in violation of: (i) Any national ambient air quality standard in any air quality control region"); Ga. Comp. R. & Regs. 391-3-1-.02(7)(b)(8) (incorporating and adopting by reference the requirements set forth in 40 C.F.R. § 52.21(k), as amended).

[55] 42 U.S.C. §7475(a)(3); *see also* Ga. Comp. R. & Regs. 391-3-1-.03(8)(a) ("The Director shall determine prior to issuing any permit that the proposed construction or modification will not cause or contribute to a failure to maintain any ambient air quality limitation…. Each person applying to the Director for a permit to construct a new stationary source or modify an existing stationary source shall provide information required by the Director to make such determination."); Ga. Comp. R. & Regs. 391-3-1-.02(7)(b)(8) (incorporating and adopting by reference the PSD requirement in 40 C.F.R. § 52.21(k) that "the owner or operator of the proposed source or modification shall

demonstration requires the "use of air quality modeling," for which the Georgia state implementation plan has incorporated 40 C.F.R. section 52.21(l).[56] This provision requires that "[a]ll estimates of ambient concentrations . . . *shall* be based on applicable air quality models, data bases, and other requirements specified in appendix W of part 51 of this chapter (Guideline on Air Quality Models)."[57] And should a specified air quality model be "inappropriate," the model may be modified or substituted on a case-by-case or state-specific basis, subject to EPA approval and notice-and-comment.[58]

To assist applicants with compliance demonstrations, EPD published a "PSD Permit Application Guideline Document,"[59] which compiles provisions from 40 C.F.R. 51 appendix W ("Guideline on Air Quality Models"), "clarification memoranda" issued by EPA on its dispersion modeling Support Center for Regulatory Atmospheric Modeling,[60] and EPA's AERMOD Implementation Guide. EPA also published an Air Quality Analysis Checklist ("EPA Checklist") to assist both the regulatory reviewer and "those conducting these regulatory demonstrations" with ensuring the compliance demonstration is done correctly.[61]

Taken from the preceding listed resources, compliance demonstrations require the following steps: the permittee must develop and submit a modeling protocol; attend a pre-PSD application meeting with the permitting agency; perform a preconstruction monitoring requirement analysis, including an ozone ambient impact analysis if applicable; perform a single-source impact analysis for Class I and II areas; and, contingent on the single-source impact analysis results, perform a cumulative impact analysis for Class I and II areas, which includes NAAQS modeling and PSD increment modeling. For each Class I area that may be impacted, the applicant must also perform an Air Quality Related Values ("AQRV") impact analysis, for which the applicable Federal Land Manager is the primary reviewer.

B. The Source Impact Analysis Relies on Old Data from a Rural Air Monitor, Yielding Background Concentrations that are Not Representative of Areas that Will Be Impacted by the Project's Increased Emissions.

1) Georgia Power Failed to Perform Pre-construction Monitoring to Collect Representative Background Data.

The Clean Air Act prohibits construction of a major modification subject to PSD review, such as this one, unless the permittee "agrees to *conduct such monitoring* as may be necessary to determine the effect which emissions from any such facility may have, or is having, on air

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demonstrate that allowable emission increases from the proposed source or modification, in conjunction with all other applicable emissions increases or reductions (including secondary emissions), would not cause or contribute to air pollution in violation of: (i) Any national ambient air quality standard in any air quality control region").

[56] *Longleaf Energy Associates, LLC v. Friends of the Chattahoochee, Inc.,* 681 S.E.2d 203, 211–12 (Ga Ct. App. 2009); *see also* Ga. Comp. R. & Regs. 391-3-1-.02(7)(b)(9) (incorporating 40 C.F.R. § 52.21(l) by reference).

[57] 40 C.F.R. § 52.21(l) (emphasis added).

[58] *Id.*

[59] Ga. Env't Prot. Div., *PSD Permit Application Guidance Document* (Feb. 3, 2017), https://perma.cc/T3SY-T2WY [hereinafter "EPD PSD Guidance"].

[60] Air Quality Models—Clarification Memos for Dispersion Models, EPA, https://perma.cc/77U3-B3BM (last updated Sep. 9, 2025).

[61] EPA, Air Quality Analysis Checklist (2020), https://perma.cc/HS6N-94KV.

quality *in any area which may be affected by emissions from such source*."[62] The Act also prohibits construction of this type of project unless it is authorized by a legally compliant permit for which "the required analysis has been conducted in accordance with regulations promulgated by the Administrator."[63] Among other things, those regulations require the permittee to perform "an analysis of ambient air quality in the area that the major stationary source or major modification would affect," for "each pollutant for which [the modification] would result in a significant net emissions increase."[64] For each such pollutant for which a national ambient air quality standard exists, this required analysis "shall contain continuous air quality monitoring data gathered for purposes of determining whether emissions of that pollutant would cause or contribute to a violation of the standard."[65]

Georgia Power's application summarizes these requirements as follows: "[A]n analysis of ambient air quality *in the vicinity of the proposed Project* for each pollutant subject to PSD review must be conducted."[66] However, it goes on to state that instead of gathering monitoring data "in the vicinity of" Plant Bowen—or even "gathering" such data *at all*—Georgia Power relied on "[e]xisting monitoring data from EPD's monitoring network."[67]

Georgia Power's reliance on outdated, existing monitoring data is plainly inconsistent with the Clean Air Act's requirement for the permittee to gather monitoring data in the vicinity of the project site for the specific purpose of evaluating whether its increased emissions would cause or contribute to an exceedance of any NAAQS. This divergence from federal PSD requirements is particularly egregious given that the existing monitoring data Georgia Power relied upon is not representative of air quality in the vicinity of the project site or the areas "which may be affected" by its increased emissions, as required by the clear statutory language of the Clean Air Act.[68] In fact, as described below, the background data relied upon for the source impact analysis does not even meet the alternative criteria described in the application—it is neither "representative" nor "current." As a result, EPD must require Georgia Power to gather representative monitoring data in the vicinity of Plant Bowen and use that data to perform a new source impact analysis.

2) The Existing Monitoring Data Relied Upon for the Source Impact Analysis is Neither Representative nor Current.

Georgia Power describes what it considers to be a sufficient alternative to the Clean Air Act's requirement to gather pre-construction monitoring data as follows:

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[62] 42 U.S.C. § 7475(a)(7) (emphasis added).
[63] 42 U.S.C. § 7475(a)(1)–(2).
[64] 40 C.F.R. § 51.166(m)(1)(i)(B).
[65] *Id.* § 51.166(m)(1)(iii). In addition, this monitoring data "shall have been gathered over a period of one year preceding receipt of the application." *Id.* § 51.166(m)(1)(iv). The only exception to this requirement is that, if the permitting agency "determines that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year (but not to be less than four months)," then the monitoring data "shall have been gathered over at least that shorter period." *Id.*
[66] Ga. Power Co., *Bowen Steam-Electric Generating Plant Combined-Cycle Units 7, 8, 9, and 10; Prevention of Significant Deterioration Permit Application Volume II – Air Quality Analysis* at 49 (emphasis added) [hereinafter "Application Vol. II"].
[67] *Id.*
[68] 42 U.S.C. § 7475(a)(7).

> Air quality data are obtained from pre-construction monitoring or, *under certain conditions,* from existing monitoring data. Existing air quality monitoring data may be used in lieu of pre-construction monitoring *if*:
>
> - The data *are representative* of the proposed facility's *impact areas*;
> - The data are of similar quality as would be obtained if the applicant monitored according to the PSD requirements; and
> - The data *are current*; that is, the data have been collected during the *two-year period* preceding the permit application, provided the data are still *representative of current conditions*.[69]

As described in Section IV.B.1, reliance on existing monitoring data for purposes of the source impact analysis is inconsistent with the plain language of the Clean Air Act and its implementing regulations. Moreover, the existing monitoring data relied upon by Georgia Power does not even meet the criteria set forth in its application. In particular, the existing monitoring data used to calculate background concentrations is not "representative" of air quality in the vicinity of Plant Bowen or the downwind areas that its increased emissions would impact the most. In addition, the existing monitoring data relied upon is not even remotely "current."

For purposes of calculating background concentration values for NO_2 and $PM_{2.5}$, Georgia Power relied exclusively on existing data from the "Yorkville monitor."[70] This monitor is located approximately 25 kilometers to the southwest of Plant Bowen and, according to the application, "is situated in a rural area."[71] Most notably, as the application acknowledges, the Yorkville monitor "ceased operation in 2015."[72]

In choosing to rely exclusively on NO_2 and $PM_{2.5}$ data from the inactive Yorkville monitor, Georgia Power specifically excluded all data from three other NO_2 monitors (NR-GA Tech, NR-285, and South DeKalb) and two other $PM_{2.5}$ monitors (NR-GA Tech and South DeKalb) in the Atlanta area—all of which are currently active. In addition, the Company appears to have entirely disregarded two other active $PM_{2.5}$ monitors in the Atlanta area (Fire Station #8 and Forest Park) and one nearby $PM_{2.5}$ monitor that just ceased operation in January 2025 (Kennesaw).

Even according to Georgia Power's own criteria for relying on existing monitoring sites rather than gathering data in the vicinity of the project site, the Yorkville monitor clearly fails: the data must be "current," which Georgia Power itself defines as "hav[ing] been collected during the *two-year period* preceding the permit application."[73] Especially given that current data are available from three active NO_2 monitors, four active $PM_{2.5}$ monitors, and one recently active $PM_{2.5}$ monitor in the area, it is patently unreasonable for Georgia Power to have relied exclusively on data collected from a single monitor, more than a decade ago.

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[69] Application Vol. II at 49 (emphases added).
[70] *Id.* at 46.
[71] *Id.*
[72] *Id.*
[73] *Id.* at 49.

In addition, unlike the inactive Yorkville monitor, all three active NO_2 monitors and all five active or recently active $PM_{2.5}$ monitors in the Atlanta area are located to the south*east* of the plant—the primary plume direction.[74] As a result, these monitors not only provide much more recent data but are more representative of background air quality in the areas that are most likely to be affected by the increased emissions from the proposed project.

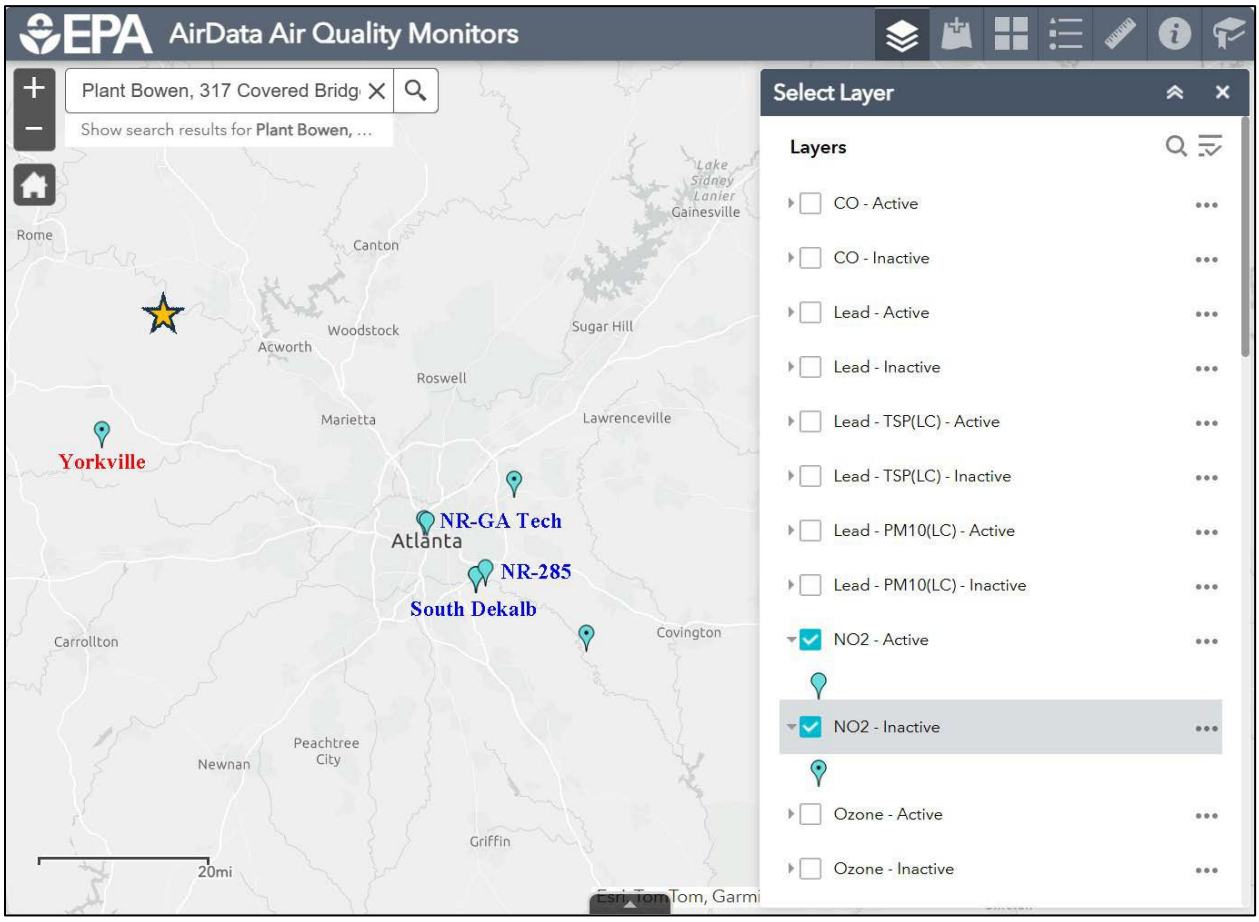

Figure 5: Location of NO_2 Monitors Relative to Project Site

[74] Although the application does not include a plume map, the primary direction of the plume is evident from the locations of the maximum receptors identified in the NAAQS and PSD increment analyses. *See id.* at 41 fig. 6-1 (showing the maximum impact locations for annual NO2, annual PM2.5, and 24-hour PM2.5 to the southeast of the project site); *id.* at 45 fig. 6-4 (same).

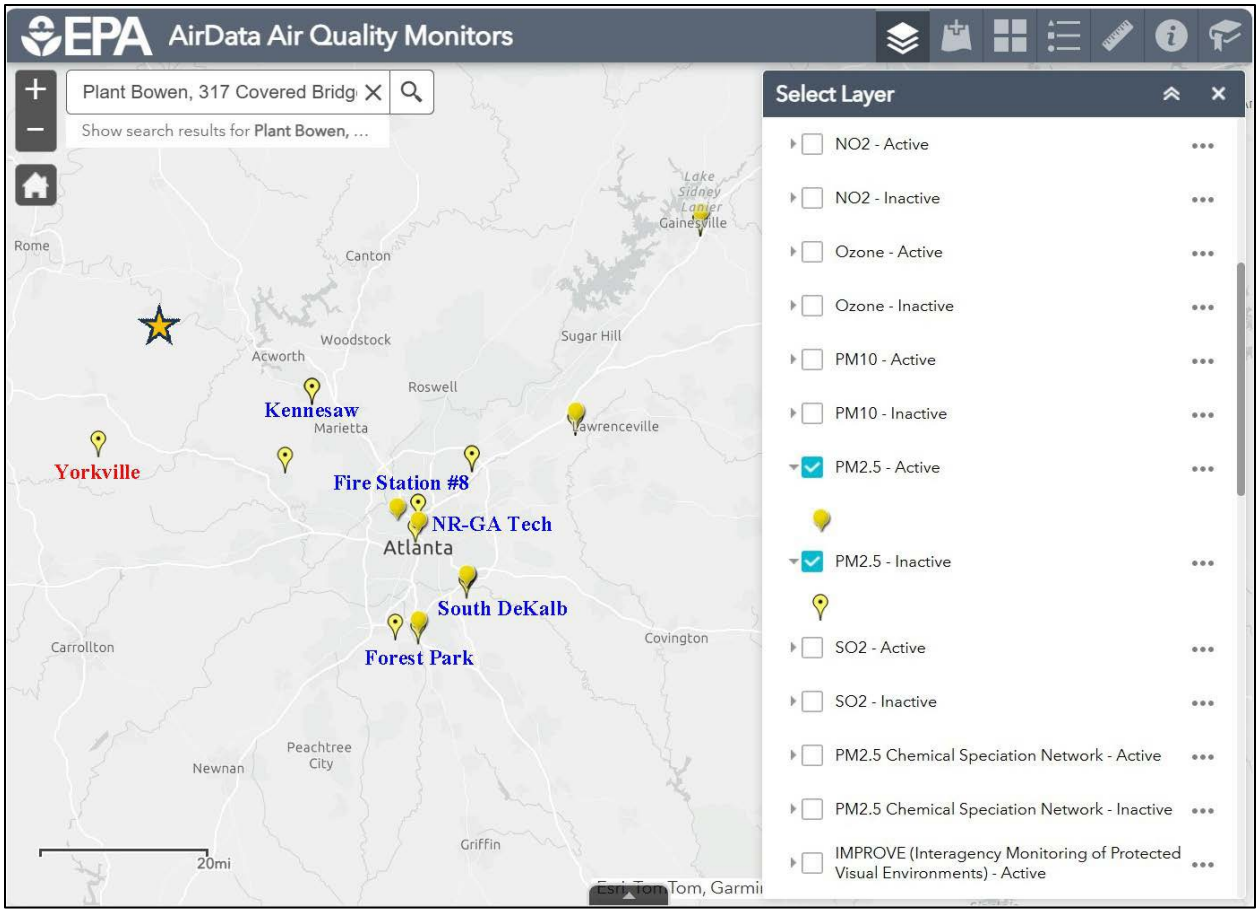

Figure 6: Location of $PM_{2.5}$ Monitors Relative to Project Site

Finally, the Yorkville monitor is located in Paulding County—which, unlike the project site in Bartow County, was not part of the previous nonattainment area for ozone.[75] In contrast, the three active NO_2 monitors that the Company chose to exclude are located in Fulton and DeKalb Counties, which *were* part of the previous nonattainment area.[76] This is particularly relevant since NOx emissions were the primary reason for the area's previous nonattainment designation for ozone.

Because there are no existing NO_2 or $PM_{2.5}$ monitors in Bartow County, there are no truly "representative" background data that can be relied upon to accurately estimate impacts for these pollutants in the immediate vicinity of the project site. Georgia Power itself describes the PSD program as requiring an analysis of air quality impacts "in the vicinity of the proposed Project"—yet it chose not to collect any such data.[77] While current data from the three active NO_2 monitors and the five active or recently active $PM_{2.5}$ monitors to the southeast are useful in estimating impacts in areas downwind of the project, they are not a sufficient substitute for gathering data in its immediate vicinity as needed to estimate impacts on the closest receptors—

[75] Ga. Env't Prot. Div., *Ozone State Implementation Plans (SIPs): 2015 Standard—Atlanta Map*, EPD (Oct. 4, 2019), https://perma.cc/M2M6-59JA.
[76] *Id.*
[77] Application Vol. II at 49.

where modeled impacts tend to peak, and thus where the public is at the highest risk of being exposed to air pollution that exceeds the NAAQS.

In light of these significant flaws in the calculation of background concentrations, EPD must deny the permit application or, at a minimum, require the Company to perform a new source impact analysis using current, representative background concentration data. In particular, EPD must require the Company to: (1) collect one year of NO_2 data and $PM_{2.5}$ in the immediate vicinity of the project site; (2) use this data to re-calculate the background concentrations for NO_2 and $PM_{2.5}$; and (3) use these re-calculated background values to evaluate whether the project will cause or contribute to a violation of any NAAQS in the vicinity of the project site. EPD must also require the Company to: (1) re-calculate the background concentration for NO_2 using current data from the active NO_2 monitors in Fulton and DeKalb Counties; (3) re-calculate the background $PM_{2.5}$ concentration using current data from the active and recently active $PM_{2.5}$ monitors in Cobb, Fulton, DeKalb, and Clayton Counties; and (2) use these re-calculated background values to evaluate whether the project will cause or contribute to a violation of any NAAQS in areas downwind from the project.

C. The Source Impact Analysis Relies on Flawed Inputs and Assumptions, Resulting in Underestimated Impacts.

Georgia Power's estimated project emissions rates rely on flawed inputs, specifically related to startups and shutdowns, as well as an unjustified assumption that distillate fuel combustion will be limited to 1,200 hours per year. By underestimating its project emissions in its single-source-impact analysis, and relying on an unjustified assumption, Georgia Power has not demonstrated compliance with the Clean Air Act.

For its single-source-impact analysis, Georgia Power must model dispersion of both past actual emissions and the lower of future maximum emissions or allowable emissions.[78] Despite the use of allowable emissions, which account for control limits, these project emissions must still reflect worst-case scenarios, including startups and shutdowns.[79]

Georgia Power failed to include startup and shutdown emissions for NO_X in its single-source-impact analysis, and thus these emissions are not representative of worst-case project emissions. As Georgia Power itself explains, "hourly emissions of NO_X and CO during startup and shutdown are higher than emissions during normal operations at [the expected load at which the units will be capable of achieving all applicable limits]."[80] Yet, while Georgia Power included startup and shutdown emissions for CO in its single-source-impact analysis, it failed to include startup and shutdown emissions for NO_X.[81]

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[78] EPD PSD Guidance at 38.

[79] *Id.* at 42; *see also* 40 C.F.R. Part 51 app. W § 9.2.3(c) ("The single-source impact analysis, or first stage of an air quality analysis, should begin by determining the potential of a proposed new or modifying source to cause or contribute to a NAAQS o PSD increment violation. In certain circumstances, a screening model or technique may be used instead of the preferred model because *it will provide estimated worst-case ambient impacts* from the new or proposed modifying source.") (emphasis added).

[80] Application Vol. II at 16.

[81] *See* Ga. Power Co., *Bowen Steam-Electric Generating Plant Combined-Cycle Units 7, 8, 9, and 10; Prevention of Significant Deterioration Permit Application Volume I – Construction Permit Application* at 10[hereinafter "Application Vol. I"]; Application Vol. II at 8.

Table 3-1: Proposed CC Units: Hourly and Annual Emissions, Natural Gas-Fired Only

Pollutant	Maximum Hourly Emissions Per CC Normal Operations (lb/hr/CC) [1][2]	Potential Annual Emissions Per CC Including SU/SD (tons/year/CC) [1][3]	Potential Annual Emissions Four (4) CCs Including SU/SD (tons/year) [1][3]
NO_X	42.1	184.0	736.1
CO	25.7	204.6	818.4
VOC	14.7	119.0	476.0
SO_2	8.2	35.7	142.9
Sulfuric Acid Mist	12.5	54.7	218.8
TSP[4]	10.6	46.4	185.4
PM_{10} Total	23.1	101.1	404.2
$PM_{2.5}$ Total	23.1	101.1	404.2
GHG (CO_2e)[5]	630,060	2,751,377	11,005,508
Lead	0.0026	0.0114	0.046

(1) See Appendix C for detailed calculations.
(2) Maximum hourly emissions (lbs per hr) are based on natural gas firing at 100% load at 20°F with supplemental firing.
(3) Annual emissions (tons per year) are based on operating 8,760 hours per year on natural gas based on 100% normal full load at 59°F with use of evaporative coolers and supplemental firing and include emissions from startup and shutdown.
(4) Total Suspended Particulate (TSP) is filterable PM emissions only. PM_{10} and $PM_{2.5}$ includes both filterable and condensable PM emissions.
(5) CO_2e is the equivalent number of tons of CO_2 emissions with the same global warming potential as one ton of another greenhouse gas. CO_2e includes CO_2 emissions, CH_4 emissions as CO_2e, and N_2O emissions as CO_2e.

Figure 7: Georgia Power's Project Emissions for Natural Gas-Fired Only Operation[82]

Referencing the table above, NO_X hourly emissions for normal operations, excluding startups and shutdowns, are 42.1 pounds per hour per combined cycle generator. But NO_X annual emissions per unit, listed as "[i]ncluding SU/SD" are just the normal operation emissions multiplied by 8,760 hours per year and converted to tons. This fails to include NO_X hourly emissions from startup and shutdown. And later in the application, in another table, Georgia Power states that for NO_X emissions, "[a]nnual emissions reflect continuous operation, 8,760 hours per year at full load, as this scenario results in higher annual emissions compared to the scenario that includes startup and shutdown operations," whereas for CO emissions "[a]nnual emissions include startup and shutdown operations as this scenario reflects higher annual emissions compared to the scenario that assumes 8,760 hour per year of operation at full load."[83]

If both NO_X and CO emissions are higher during startup and shutdown operations, as reflected in Georgia Power's calculations, then both emissions totals should include startup and shutdown operations. But Georgia Power only includes this for CO.[84] By underestimating its

[82] Application Vol. I at 10.
[83] Application Vol. II at 8.
[84] *Id.*

NO_X emissions, Georgia Power failed to demonstrate that its proposed modification will not cause or contribute to a NAAQS violation as required by the Clean Air Act, section 165(a)(3).

Further, Georgia Power assumes that its units will run on distillate oil for only 1,200 hours per year, without providing control limitations to ensure that this occurs. In fact, even the project emissions listed in the application do not reflect this assumption.

Table 3-2: Proposed CC Units: Hourly and Annual Emissions, with Distillate Oil Backup

Pollutant	Natural Gas Maximum Hourly Emissions Per CC Normal Operations (lb/hr/CC) (1)(2)	Distillate Oil Maximum Hourly Emissions Per CC Normal Operations (lb/hr/CC) (1)(3)	All Fuels Potential Annual Emissions Per CC Including SU/SD (tons/year/CC) (1)(4)	All Fuels Potential Annual Emissions Four (4) CCs Including SU/SD (tons/year) (1)(4)
NO_X	42.1	75.1	228.9	915.7
CO	25.7	18.3	257.4	1,029.6
VOC	14.7	10.5	161.6	646.4
SO_2	8.2	5.9	39.2	157.0
Sulfuric Acid Mist	12.5	9.0	60.1	240.4
TSP(5)	10.6	38.0	69.0	275.9
PM_{10} Total	23.1	47.0	129.1	516.3
$PM_{2.5}$ Total	23.1	47.0	129.1	516.3
GHG (CO_2e)(6)	630,060	570,244	3,092,534	12,370,136
Lead	0.0026	0.049	0.041	0.163

(1) See Appendix C for detailed calculations.
(2) Maximum hourly emissions (lbs per hr) are based on natural gas firing at 100% load at 20°F.
(3) Maximum hourly emissions (lbs per hr) are based on distillate oil firing at 100% load at 0°F, except TSP/PM_{10}/$PM_{2.5}$ which is at 100% load and at 65°F.
(4) Annual emissions (tons per year) are based on operating 7,560 hours per year on natural gas and 1,200 hours per year on distillate oil based on 100% normal full load at 59°F with use of evaporative coolers (and supplemental firing for natural gas operations) and include emissions from startup and shutdown.
(5) TSP is filterable PM emissions only. PM_{10} and $PM_{2.5}$ includes both filterable and condensable PM emissions.
(6) CO_2e is the equivalent number of tons of CO_2 emissions with the same global warming potential as one ton of another greenhouse gas. CO_2e includes CO_2 emissions, CH_4 emissions as CO_2e, and N_2O emissions as CO_2e.

Figure 8: Georgia Power's Project Emissions for Operations with Distillate Oil Backup[85]

For example, Georgia Power lists NO_X hourly emissions for normal operations at 42.1 pounds per hour per combined-cycle generator running on natural gas, and at 75.1 pounds per hour per combined-cycle running on distillate oil.[86] But if Georgia Power did not include NO_X emissions for startup and shutdown, which is consistent with other omissions throughout the application, 228.9 tons per year per combined cycle is inconsistent with the assumption that the

[85] Application Vol. I at 11.
[86] Application Vol. I at 11.

units will only run distillate oil for 1,200 hours per year.[87] In fact, with these values, Georgia Power would run 6,063 hours per year of natural gas and 2,697 hours per year of distillate oil. If this is the case, Georgia Power must adjust its assumptions, or EPD must require a strict limit on distillate oil operations that reflects those assumptions.

D. The Source Impact Analysis Improperly Relies on Modeled Emission Rates for Precursors and Significant Impact Levels to Avoid Required PSD Modeling.

As the proponent of a major modification subject to PSD, Georgia Power is required to perform air dispersion modeling to determine whether the proposed project will cause or contribute to exceedances of any NAAQS or the PSD increment. Here, given that the Atlanta metropolitan area is already exceeding the primary 8-hour NAAQS for ozone and the primary annual NAAQS for $PM_{2.5}$, it is hard to conceive how a major modification—by definition, a project that increases net emissions from a major source by a significant amount—could *not* cause or contribute to any NAAQS violations. Georgia Power, however, has attempted to take an offramp that conflicts with the plain language of the Clean Air Act to avoid doing a full ambient air impact analysis. EPD must require Georgia Power to submit an amended application with a proper source impact analysis.

While Georgia Power's permit application includes air dispersion modeling for $PM_{2.5}$ and NO_2, it does not include any modeling for ozone, PM_{10}, SO_2, or CO, relying instead on two legally dubious concepts known as Significant Impact Levels ("SILs") and Modeled Emission Rates for Precursors ("MERPs"). Georgia Power's misplaced reliance on these flawed concepts to avoid ozone modeling is particularly concerning, considering the area's ongoing violation of the ozone NAAQS.

1) Georgia Power's Reliance on Significant Impact Levels to Avoid Further Analysis Conflicts with the Plain Statutory Language of the Clean Air Act.

EPA guidance suggests that permitting agencies may issue a permit by relying on SILs to find, on a case-by-case basis, that a project's emissions will not contribute "significantly" to a NAAQS violation.[88] But this guidance conflicts with the plain language of the Clean Air Act, which unambiguously requires a permittee to demonstrate that emissions from construction and operation of a proposed major modification "will not **cause, or contribute to,** air pollution in excess of any . . . national ambient air quality standard in any air quality control region."[89] EPA's guidance improperly inserts the term "significantly" where it does not appear in the statute. Notably, Congress chose to explicitly qualify the verb "contribute" with the adverb

[87] *See id.*
[88] EPA, *Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program* 3, 7–8, 15 (Apr. 17, 2018), https://perma.cc/398H-3AK2 [hereinafter "2018 EPA SIL Guidance"].
[89] 42 U.S.C. § 7475(a)(3) (emphasis added).

"significantly" *elsewhere* in the Clean Air Act—not just once, but repeatedly.[90] In contrast, the absence of the term "significantly" in Section 165(a)(3) of the Act demonstrates clear legislative intent to prohibit construction of a major modification if its emissions would contribute *in any way* to a NAAQS violation.[91] As a result, because the Atlanta metropolitan area is already in violation of the ozone NAAQS, *any* increase in emissions of ozone precursors from a source in the area will necessarily "contribute to" that violation.

Moreover, even EPA's unlawful guidance recognizes that reliance on SILs is not appropriate in all permitting actions. It specifically provides that where a permitting authority has reason to be concerned that modeled impacts below the SILs may nevertheless cause or contribute to a NAAQS violation, the agency "should require additional information from the permit applicant to make the required air quality impact demonstration."[92] In addition, EPA's guidance provides that the use of SIL values should be justified in the record for each permit.[93] While the application cites EPA guidance as the source of the SIL values used,[94] neither Georgia Power nor EPD provide sufficient reasoning for how the use of EPA's generic SIL values is appropriate for this particular project—especially considering that it is located in an area that is already violating the ozone NAAQS.

As described in Section I.A and acknowledged publicly by EPD, the Atlanta metropolitan area is already measuring non-attainment for ozone. Georgia Power's own calculations show that

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[90] *See, e.g.*, *id.* § 7426(a)(1)(B) (establishing notification requirements for a major source or modification "which may *significantly contribute to* levels of air pollution in excess of the national ambient air quality standards in any air quality control region outside the State") (emphasis added); *id.* § 7506a(a) (providing authority for EPA to establish interstate transport regions when "the interstate transport of air pollutants from one or more States *contributes significantly to* a violation of a national ambient air quality standard in one or more other States") (emphasis added); *id.* § 7547(a)(1) (requiring EPA to evaluate whether emissions from nonroad engines and nonroad vehicles "cause, or *significantly contribute to,* air pollution which may reasonably be anticipated to endanger public health or welfare") (emphasis added); *id.* § 7411(b)(1)(A) (requiring EPA to include in the list of categories of stationary sources any category that "causes, or *contributes significantly to*, air pollution which may reasonably be anticipated to endanger public health or welfare") (emphasis added); *id.* § 7492(c)(1) (providing authority for EPA to establish visibility transport regions when "the current or projected interstate transport of air pollutants from one or more States *contributes significantly to* visibility impairment in class I areas") (emphasis added); *id.* § 7512a(c)(1) (discussing state implementation plan requirements for "Serious Areas in which stationary sources *contribute significantly to* carbon monoxide levels") (emphasis added); *id.* § 7410(a)(2)(D)(i)(I) (requiring state implementation plans to prohibit activities that "*contribute significantly to* nonattainment in, or interference with maintenance by, any other State with respect to any such national primary or secondary ambient air quality standard") (emphasis added); *id.* § 7491(a)(3) (requiring EPA to complete a study that identifies the types of sources and pollutants that "may reasonably be anticipated to cause *or contribute significantly to* impairment of visibility") (emphasis added); *id.* § 7671a(a) (requiring EPA to "add to the list of class I substances any other substance that the Administrator finds causes *or contributes significantly to* harmful effects on the stratospheric ozone layer") (emphasis added).

[91] *See, e.g.*, *Polselli v. IRS.*, 598 U.S. 432, 439 (2023) ("We assume that Congress 'acts intentionally and purposely' when it 'includes particular language in one section of a statute but omits it in another section of the same Act.'" (quoting *Sebelius v. Cloer*, 569 U.S. 369, 378 (2013)); *Bryant v. Genco Stamping & Mfg. Co., Inc.*, 33 S.W.3d 761, 765 (Tenn. 2000) ("[W]here the legislature includes particular language in one section of the statute but omits it in another section of the same act, it is presumed that the legislature acted purposefully in including or excluding that particular subject.").

[92] 2018 EPA SIL Guidance at 18.

[93] *Id.* at 19.

[94] Application Vol. II at 36, 37 tbl. 5-4.

the proposed project will result in significant net increases in emissions of NO_X and VOC, both of which are ozone precursors. In the absence of sufficient emission offsets for these pollutants, Georgia Power cannot demonstrate—and EPD cannot determine—that the project will not "contribute to" a violation of the ozone NAAQS.

2) Georgia Power's Reliance on Modeled Emission Rate for Precursors to Avoid Further Analysis Also Conflicts with the Plain Statutory Language of the Clean Air Act.

EPA guidance also suggests that permitting agencies may rely on Modeled Emission Rate for Precursors ("MERPs") to find, on a case-by-case basis, that a project's emissions will not cause or contribute to a NAAQS exceedance for ozone or secondary $PM_{2.5}$. This guidance conflicts with the plain language of the Clean Air Act, because of the reliance on SILs. Additionally, even if SILs were adequate, the use of MERPs values is specifically inadequate to analyze the air quality impacts of Georgia Power's proposed modification. Instead, Georgia Power must use refined Tier-2 photochemical monitoring to adequately determine its project's impacts on ozone and secondary $PM_{2.5}$ NAAQS.

EPA's MERPs guidance uses a two-tiered approach to estimate a project's air quality impact on the ozone and secondary $PM_{2.5}$ NAAQS.[95] The purpose of this approach is to simplify a permit applicant's demonstration that a proposed project will not cause or contribute to a NAAQS violation. It does this by allowing an applicant to estimate its project air quality impacts with comparable "hypothetical sources."[96] Hypothetical sources are fake single sources of emissions created by the EPA, for which EPA has generated location-based "empirical relationships [with] O_3 and $PM_{2.5}$ impacts."[97] Each hypothetical source has an associated MERP value (i.e. a hypothetical source's air quality impact) based on an annual emission of a specific pollutant. For example, for 8-hour ozone, a hypothetical source may have a MERP of 1.08 ppb of NO_X per 1,000 tons per year of NO_X emissions.[98]

For the Tier 1 step of the analysis, once a representative hypothetical source is chosen, the hypothetical source air quality impact and the hypothetical source emission rate is ratioed and multiplied by the project's emission rate to calculate a "project air quality impact."[99] This resultant value is compared to the corresponding SIL.[100] If the calculated project air quality impact is higher than the SIL, then it is added to "the appropriate background contribution for comparison to the NAAQS."[101] If this results in a projected design value in exceedance of the NAAQS, Tier 2 is triggered, and the applicant is required to perform further refined

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[95] *See* EPA, *Clarification on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ Under the PSD Permitting Program* (Apr. 30, 2024) [hereinafter "2024 EPA MERPs Guidance" and "2024 EPA MERPs Guidance: Attachment"] https://perma.cc/YJ9B-F493.
[96] *See* 2024 EPA MERPs Guidance: Attachment at 1.
[97] *MERPS View Qlik*, EPA, https://perma.cc/YT22-NU4F (last visited on Oct. 13, 2025).
[98] *MERPS View Qlik: Information Intended to Support Class II NAAQS Tier 1 Demonstrations for Permit Related Program—Values for Campbell County, Wyoming Hypothetical Source for a 90-meter Stack*, EPA , https://perma.cc/YT22-NU4F (last visited on Oct. 13, 2025) (to access data, click *Export Table* or navigate the web data tables).
[99] 2024 EPA MERPs Guidance: Attachment at 3 (listing equation 1).
[100] *Id.*
[101] *Id.* at 9–10.

photochemical grid modeling to explicitly simulate ozone formation, transport, and precursor sensitivity.[102]

As described in the preceding subsection, the use of SILs to determine whether a source causes or contributes to a NAAQS violation is in direct conflict with the plain language of the Clean Air Act, section 165(a)(3). Thus, the use of SILs for the single-source-impact analysis for ozone and secondary $PM_{2.5}$ violates the Clean Air Act.

But even if the use of SILs for single-source-impact analysis is lawful, the use of MERPs values is insufficient for Plant Bowen to satisfy Clean Air Act section 165(a)(3). First, for areas that are near or in excess of the ozone standard like the Atlanta area, the Guideline on Air Quality Models, incorporated into the Georgia SIP, states that the "use of photochemical grid models" is the recommended means for evaluating "the relationship between precursor species and ozone," not MERPs or some other screening technique.[103] The Atlanta area is not attaining the 2015 Ozone NAAQS, and thus is squarely within the situation contemplated by the Guideline on Air Quality Models.

Second, Georgia Power inadequately justified its choice of the hypothetical source and thus failed to demonstrate compliance according to EPA guidance. When choosing a hypothetical source, the guidance instructs the applicant to provide "technically credible justification" that the stack height, emissions rate, meteorology, terrain, background pollutant concentrations, and regional and local sources of emissions near the project source are adequately represented.[104] Georgia Power chose a hypothetical source located in Tallapoosa, Alabama, and justified the choice because it is "the closest to the Plant site by 60 km," and has similar climate, terrain, and land use.[105] Nowhere does Georgia Power consider background pollutant concentrations, or regional and local sources of emissions. And in fact, the Tallapoosa hypothetical source is not the closest hypothetical source to the Plant site. The hypothetical source located in Fulton County, Georgia, is much closer to Plant Bowen, by at least 100 kilometers. Georgia Power fails to explain why it did not select the significantly closer Fulton County source for its analysis, which would seem to be more appropriate given not just its proximity but also because it is located in the Atlanta air quality control region.

Third, despite the proximity of the hypothetical source in Fulton County, neither the Fulton County source nor any other listed hypothetical source would be sufficiently representative of Plant Bowen to excuse Georgia Power from doing a source-specific analysis. EPA developed the MERPs values from "*existing* modeling studies," which were existing at or prior to April 2024.[106] Yet, the Atlanta area, which includes Fulton County, did not push into

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[102] *Id.*; *see also* 40 C.F.R. Part 51 app. W § 5.3.1(a).
[103] 40 C.F.R. Part 51 app. W § 5.3.1(a).
[104] 2024 EPA MERPs Guidance: Attachment at 4; *see also* EPA, *Guidance on the Development of Modeled Emission Rates for Precursors (MERPs) as a Tier 1 Demonstration Tool for Ozone and $PM_{2.5}$ Under the PSD Permitting Program* at 9 (Apr. 30, 2019) (attached to *2024 EPA MERPs Guidance*).
[105] Application Vol. II at 30–33.
[106] 2024 EPA MERPs Guidance: Attachment at 1 (emphasis added). The data domain for the Fulton County hypothetical source in the data spreadsheet maintained on Qlik is named "12US2_2016RUN3" which seems to imply the model for this specific hypothetical source was run in 2016. *See MERPS View Qlik: Information Intended to Support Class II NAAQS Tier 1 Demonstrations for Permit Related Program—Values for Fulton County, Georgia Hypothetical Source*, EPA , https://perma.cc/YT22-NU4F (last visited on Oct. 13, 2025) (to access data, click *Export Table* or navigate the web data tables).

nonattainment of the 2015 Ozone NAAQS until August 2024.[107] Thus, it is unlikely that the MERPs values associated with the Fulton County hypothetical source account for the Atlanta area's current nonattainment. And "where existing technical information is not available," Tier 2 modeling is required.[108]

Fourth, after determining its project air quality impact for ozone (2.597 ppb) exceeded the ozone SIL (1.00 ppb), Georgia Power only added its calculated project air quality impact to a single design value for a monitor located in Kennesaw, Georgia in Cobb County.[109] The application states it selected the Kennesaw monitor because it is the closest 8-hour ozone monitor to Plant Bowen.[110] But the Kennesaw monitor is only 12 kilometers closer than the next closest monitor, located in Douglas County.[111] EPA guidance instructs applicants to add the project air quality impact to "the appropriate background contribution for comparison to NAAQS," and gives an example of adding it to a single monitor's design value for the sake of "*simplicity*."[112] But Atlanta area air quality will be impacted by this proposed modification, and the Atlanta area is already in exceedance of the 2015 Ozone NAAQS.[113] Thus, at the very least, Georgia Power should have added this project air quality impact to the Douglas County monitor design value and the calculated Atlanta area design value, as both are "appropriate background contributions."[114] This would have resulted in a projected design value of 70.60 ppb at the Douglas County monitor,[115] and a projected design value of 74.60 ppb for the Atlanta area.[116] Both are above the 2015 Ozone NAAQS, which is 70 ppb, and would trigger Tier 2 modeling.[117]

Finally, Georgia Power's use of MERPs values for "secondary $PM_{2.5}$ concentrations used for NAAQS modeling," is erroneous because Georgia Power added in background sources.[118] By design, the use of MERPs does not capture cumulative effects of all contributing sources in a specific geographic region. The MERPs values were developed for single-source impact analysis, not cumulative analysis. Emissions of 3,000 tons per year of NO_x from a single source is unrepresentative of emissions of 28,800 tons per year of NO_x from multiple sources.[119] Georgia Power thus cannot use MERPs with background concentrations to calculate a pseudo "cumulative" impact of its project on air quality.

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[107] *Ambient Air Monitoring Program: Georgia's Air Quality—Violations*, GEORGIAGOV, https://perma.cc/L66A-KL5U (last visited Oct. 13, 2025).
[108] 40 C.F.R. Part 51 app. W § 5.3.2(c).
[109] Application Vol. II at 33.
[110] *Id.*
[111] EPA, *Ozone Design Values, 2024 (xlsx)*, tbl. 5, row 367 (May 28, 2025), https://perma.cc/A776-STBV (click *Ozone Design Values, 2024 (xlsx)* hyperlink).
[112] 2024 EPA MERPs Guidance: Attachment at 10 (listing equation 2) (emphasis added).
[113] Ga. Env't Prot. Div., *Ozone State Implementation Plans (SIPs): 2015 Standard—Atlanta Map*, EPD (Oct. 4, 2019), https://perma.cc/M2M6-59JA.
[114] 2024 EPA MERPs Guidance: Attachment at 9–10; *see also id.*
[115] EPA, *Ozone Design Values, 2024 (xlsx)*, tbl. 5, cell L367 (May 28, 2025), https://perma.cc/A776-STBV (click *Ozone Design Values, 2024 (xlsx)* hyperlink) (listing the design value for the monitor located in Douglas County as 0.068 ppm).
[116] EPA, *Ozone Design Values, 2024 (xlsx)*, tbl. 1a, cell E7 (May 28, 2025), https://perma.cc/A776-STBV (click *Ozone Design Values, 2024 (xlsx)* hyperlink) (listing the design value for the Atlanta, GA as 0.072 ppm).
[117] 40 C.F.R. Part 51 app. W § 5.3.2(c).
[118] Application Vol. II at 32.
[119] *See id.*

Because of its misplaced reliance on EPA's unlawful guidance regarding both SILs and MERPs, Georgia Power performed an inadequate analysis of its project's air quality impacts associated with emissions of ozone precursors and wrongly concluded that the project's emissions would not cause or contribute to a violation of the ozone NAAQS. Georgia Power did not even perform this cursory analysis correctly, because it did not adequately justify its choice of the hypothetical source located in Tallapoosa, Alabama. Regardless, no hypothetical source is representative of Plant Bowen and even the Guideline on Air Quality Models recommends full photochemical modeling for areas near or in excess of ozone standards. Additionally, Georgia Power failed to properly account for its project's air quality impact by only projecting the increase on a single monitor. Georgia Power has thus failed to demonstrate that its proposed modification will not cause or contribute to a violation of the ozone NAAQS and must perform refined modeling to adequately predict the project's impact on ambient ozone concentrations.

E. Georgia Power's Air Dispersion Modeling Excludes Receptors in Areas Where the General Public May Have Practical Access.

In addition to the deficiencies described above, Georgia Power's source impact analysis improperly relies on an ambient air boundary that does not appear to satisfy federal standards. In 2019, EPA revised its policy for excluding certain areas from the scope of what is considered "ambient air" for purposes of demonstrating NAAQS compliance.[120] This policy reinforces several elements of EPA's long-standing interpretation of the definition of "ambient air," including that the "general public" must not have either "legal access" or "physical or practical access" to an area in order for it to be properly excluded from ambient air.[121] EPA considers the "general public" to be "any person(s) other than those who are permitted access" to the polluting source's property "as employees or business invitees."[122] EPA's interpretation of the term "general public" specifically includes "trespassers."[123]

First, Georgia Power must demonstrate that the general public does not have "legal access" to any of the areas excluded from its modeling analysis.[124] Second, Georgia Power must demonstrate that the general public does not have "physical or practical access" to any of these areas. Until EPA revised its policy in 2019, this second element required "a fence or other physical barriers" to be in place around the entire boundary.[125] In 2019, EPA acknowledged that public access could be effectively precluded by alternative means, "of which more than one may be used in combination," such as "routine security patrols, remote surveillance cameras, [and]

[120] EPA, *Revised Policy on Exclusions from "Ambient Air"* (Dec. 2, 2019), https://perma.cc/VG8Z-HHMA [hereinafter "EPA 2019 Guidance"].
[121] *Id.* at 5–6.
[122] *Id.* at 6.
[123] *Id.*
[124] *Id*.
[125] *Id.*

drones."[126] The "effectiveness" of particular measures to preclude public access must be "evaluated on a case-by-case basis."[127]

Plant Bowen's ambient air boundary, as described in the permit application, does not appear to satisfy the criterion of preventing members of the general public from having any "physical or practical access" to areas within the boundary. In particular, it appears that Georgia Power is not implementing sufficient measures to preclude public access to the project site from areas along the southern boundary, where there is no security fencing or other manmade physical barriers.[128] Notably, this is the precise area where the Company's own analysis shows the highest modeled impacts for annual NO_2, annual $PM_{2.5}$, and 24-hour $PM_{2.5}$.[129]

Instead, Georgia Power relies on the existence of an "internal access road"—which it describes as "form[ing] a convenient ambient air boundary for purposes of this application"—and "the use of security cameras, posting of 'No Trespassing' signs, security patrolling, and other natural physical barriers (e.g., densely woody terrain with increasing levels of vegetation toward the river)."[130] However, Georgia Power does not provide any further details regarding the nature or effectiveness of these alternative measures. For example, the application does not disclose the number of security cameras, where they are located, or how they are monitored; the number, locations, or size of the "No Trespassing" signs; or the frequency of security patrols. Without any such details, neither EPD nor the public can evaluate whether existing measures are sufficient to preclude practical access by members of the general public, including potential trespassers.

EPA's policy states that "clearly visible, well-spaced 'No Trespassing' signs in conjunction with some degree of fencing or other physical and/or non-physical barriers, may potentially be effective to preclude access by the general public in appropriate situations."[131] But it goes on to qualify that "where the nature of the property offers an incentive for persons to access or trespass . . . it may be necessary to use a different combination of measures to effectively preclude public access."[132] It appears that an area to the southeast of the project site may be one such area: it roughly borders Raccoon Creek, a tributary of the Etowah River. Based on aerial images, it appears there are no manmade physical barriers between the forested area along Raccoon Creek and the "internal access road" along which the proposed ambient air

[126] *Id.* at 4, 7.
[127] *Id.* at 7 n.17.
[128] Application Vol. II at 27 ("The modeled ambient air boundary consists of security fencing to control public access along the western, northern, and the eastern boundary.").
[129] *See id.* at 41 fig.6-1 (showing the maximum impact locations for annual NO2, annual PM2.5, and 24-hour PM2.5 to the southeast of the project site); *id.* at 45 fig.6-4 (same).
[130] *Id.* at 27.
[131] EPA 2019 Guidance at 8.
[132] *Id.*

boundary runs. It also appears that this portion of Raccoon Creek can be accessed from a nearby public road, Picklesimer Road SW.

Figure 9: Aerial View of Area to West-Southwest of Project Site

EPA's policy requires the permitting agency to determine that measures are "adequate to assure that the general public will not have access under reasonably anticipated circumstances that could occur in the area."[133] It is reasonable to anticipate that the general public may use this portion of Raccoon Creek for recreational purposes such as boating, fishing, or swimming. It is also reasonable to anticipate that the public's recreational use of the creek may involve use of the surrounding forest for purposes such as hiking or picnicking. In the absence of any details regarding how public access to the plant will be precluded in the area bordering Raccoon Creek and the surrounding forest, it is reasonable to expect that members of the general public may gain access—inadvertently or otherwise—to areas where modeling receptors were not placed. As a result, Georgia Power has not adequately demonstrated that the proposed project will not cause or contribute to a NAAQS violation in the "ambient air."

EPD must require Georgia Power to either (1) perform a new air dispersion modeling analysis that includes receptors in every area to which the general public (including trespassers)

[133] *Id.* at 8.

could have practical access, including the area near Raccoon Creek, or (2) at a minimum, implement additional measures to ensure the public cannot access any areas within the modeled ambient air boundary.

F. Georgia Power's Source Impact Analysis Fails to Demonstrate the Project Would Not Cause or Contribute to NAAQS Violations.

1) Georgia Power's Own Cursory Analysis Demonstrates the Project Would Significantly Contribute to the Atlanta Area's Ongoing Violation of the Ozone NAAQS.

As described in Section IV.D.2, Georgia Power relied on the dubious concepts of MERPs and SILs to avoid performing any air dispersion modeling for ozone. However, as described in Section I.A, the Atlanta area has recently fallen back into nonattainment of the primary 8-hour NAAQS for ozone—a fact that EPD has publicly acknowledged—and the proposed expansion of Plant Bowen would significantly increase the facility's emissions of ozone precursors. In light of these indisputable facts, it belies common sense for EPD to conclude that the project would not cause or contribute to a violation of the ozone NAAQS.

Given that the Atlanta area is already measuring nonattainment for ozone, *any* increase in emissions of ozone precursors in the area should be considered to contribute to the ongoing NAAQS violation. And in this case, the proposed increases are anything but de minimis: according to the application, the project would increase the facility's annual potential emissions by more than 800 tons of NOx and more than 600 tons of VOC. These increases are, by definition, "significant."[134]

In addition, Georgia Power's own cursory calculations—which likely underestimate impacts—show that the ambient impact resulting from the project's increased emissions of ozone precursors exceeds the SIL for ozone.[135] In fact, the application shows the ambient impact resulting from the project's increase in NOx emissions *alone* exceeds this SIL.[136] As a result, even if EPA's guidance regarding SILs was not flawed, EPD could not rely on it to conclude that the project's contribution to the area's ongoing violation of the ozone NAAQS is not "significant." Accordingly, EPD must either deny the permit request or, at a minimum, require Georgia Power to substantially revise its application and secure enforceable emission offsets as needed to demonstrate that the project would not cause or contribute to a violation of the primary 8-hour NAAQS for ozone.

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[134] 40 C.F.R. § 52.21(b)(2)(i)–(v), (23)(i) (defining a "major modification" as "any physical change in or change in the method of operation of a major stationary source that would result in: a significant emissions increase . . . of a regulated NSR pollutant; and a significant net emissions increase of that pollutant from the major stationary source" and defining a "significant [net emissions increase or the potential of a source to emit [at] . . . a rate of emissions]" as 40 tons per year of NO_X and 40 tons per year of VOCs).

[135] Application Vol. II at 33 tbl. 4-14.

[136] *Id.*

2) Even Without Correcting All of the Deficiencies Identified Above, It Is Clear the Project Would Cause or Contribute to a Violation of the Primary Annual NAAQS for PM2.5.

As described in Section IV.B, Georgia Power improperly relied on outdated, unrepresentative monitoring data to calculate the background concentration for purposes of evaluating compliance with the primary annual NAAQS for $PM_{2.5}$. First, Georgia Power failed to gather monitoring data in the vicinity of the project site as required by the Clean Air Act and its implementing regulations. Second, Georgia Power chose to rely exclusively on existing data from an inactive monitor located in a rural area, to the southwest of the project site, which ceased operation in 2015. In doing so, Georgia Power excluded all current data from five $PM_{2.5}$ monitors in the Atlanta area, all of which are located to the southeast of the project site and thus are more representative of air quality in areas most likely to be impacted by the project's increase in emissions. According to the application, the background $PM_{2.5}$ concentration derived from the inactive, unrepresentative Yorkville monitor was 6.684 $\mu g/m^3$.[137]

As described in Section IV.C, Georgia Power also underestimated the project's potential $PM_{2.5}$ emissions by excluding hourly emission rates during startup and shutdown and relying on an unsupported assumption that turbine operations using distillate fuel oil would be limited to 1,200 hours per year. Using these underestimated potential emissions, Georgia Power predicted that the maximum impact on ambient annual $PM_{2.5}$ concentrations would be 2.14 $\mu g/m^3$.

For the reasons discussed above, Georgia Power's source impact analysis clearly underestimated both background concentrations and the facility's modeled impact. Nevertheless, its own calculations show the project would contribute to an ambient annual $PM_{2.5}$ concentration that is *just barely* below the applicable NAAQS: 8.94 $\mu g/m^3$ compared to 9.0 $\mu g/m^3$. This predicted ambient concentration is equal to 99.33% of the NAAQS—and therefore provides virtually zero room for error in the assumptions and data used to calculate it. As a result, any minor adjustments made to remedy Georgia Power's flawed calculation of background concentrations and/or the project's potential emissions would certainly reveal a NAAQS violation.

Moreover, Georgia Power's flawed calculations of the background concentration and the project's potential emissions necessitate far more than minor adjustments. For example, EPD should require Georgia Power to use current data from the five other $PM_{2.5}$ monitors in the Atlanta area to re-calculate the background concentration value. The average of these five monitors' certified 2022–2024 design values is 8.94 $\mu g/m^3$; even without adjusting the project's modeled impact to accurately reflect its potential $PM_{2.5}$ emissions, use of this background value would yield a total ambient concentration of 11.08 $\mu g/m^3$. And even if EPD only required Georgia Power to use the closest $PM_{2.5}$ monitor with current data—the Kennesaw monitor, located approximately 20 miles to the southeast of the project site, for which the certified 2022–2024 design value is 8.7 $\mu g/m^3$—then use of this background value would yield a total ambient concentration of 10.84 $\mu g/m^3$, still well above the applicable NAAQS.

[137] Application Vol. II at 49 tbl. 6-5.

Finally, even if EPA's guidance regarding SILs was not flawed, EPD could not rely on it to conclude that the project's contribution to a predicted violation of the primary annual NAAQS for $PM_{2.5}$ is not "significant." Georgia Power's own calculations and modeling clearly show that the project's emissions would result in a modeled impact that is more than 233% of the relevant SIL.[138] Accordingly, EPD must either deny the permit request or, at a minimum, require Georgia Power to substantially revise its application and secure enforceable emission offsets as needed to demonstrate that the project would not cause or contribute to a violation of the primary annual NAAQS for $PM_{2.5}$.

3) Even Without Correcting All of the Deficiencies Identified Above, the Project Would Likely Cause or Contribute to a Violation of the Primary 1-Hour NAAQS for NO_2.

As described in Section IV.B, Georgia Power improperly relied on outdated, unrepresentative monitoring data to calculate the background concentration for purposes of evaluating compliance with the primary 1-hour NAAQS for NO_2. First, Georgia Power failed to gather monitoring data in the vicinity of the project site as required by the Clean Air Act and its implementing regulations. Second, Georgia Power chose to rely exclusively on existing data from an inactive monitor located in a rural area, to the southwest of the project site, which ceased operation in 2015. In doing so, Georgia Power excluded all current data from three active NO_2 monitors in the Atlanta area, all of which are located to the southeast of the project site and thus are more representative of air quality in areas most likely to be impacted by the project's increase in emissions. According to the application, the background NO_2 concentration derived from the inactive, unrepresentative Yorkville monitor was 30.3 $\mu g/m^3$.[139]

As described in Section IV.C, Georgia Power also underestimated the project's potential NO_2 emissions by excluding hourly emission rates during startup and shutdown and relying on an unsupported assumption that turbine operations using distillate fuel oil would be limited to 1,200 hours per year. Using these underestimated potential emissions, Georgia Power predicted that the maximum impact on ambient 1-hour NO_2 concentrations would be 135.23 $\mu g/m^3$.

For the reasons discussed above, Georgia Power's source impact analysis underestimated both background concentrations and the facility's modeled impact. Nevertheless, its own calculations show the project would contribute to an ambient 1-hour NO_2 concentration of 165.53 $\mu g/m^3$, which is equal to 91.96% of the primary 1-hour NAAQS for NO_2 (which is 188.0 $\mu g/m^3$)—and therefore provides little room for error in the assumptions and data used to calculate it. As a result, any moderate adjustments made to remedy Georgia Power's flawed calculation of background concentrations and/or the project's potential emissions would likely reveal a NAAQS violation.

Again, Georgia Power's flawed calculations of the background concentration and the project's potential emissions necessitate more than moderate adjustments. For example, EPD should require Georgia Power to use current data from the three active NO_2 monitors in the Atlanta area to re-calculate the background concentration value. The average of these three

[138] *See* Application Vol. II at 37 tbl. 5-4.
[139] Application Vol. II at 49 tbl. 6-5.

monitors' certified 2022–2024 design values is 88.33 $\mu g/m^3$; even without adjusting the project's modeled impact to accurately reflect its potential NO_2 emissions, use of this background value would yield a total ambient concentration of 223.56 $\mu g/m^3$, well above the primary 1-hour NAAQS.

Finally, even if EPA's guidance regarding SILs was not flawed, EPD could not rely on it to conclude that the project's contribution to a predicted violation of the primary 1-hour NAAQS for NO2 is not "significant." Georgia Power's own calculations and modeling clearly show that the project's emissions would result in a modeled impact that is more than 600% of the relevant SIL.[140] Accordingly, EPD must either deny the permit request or, at a minimum, require Georgia Power to substantially revise its application and secure enforceable emission offsets as needed to demonstrate that the project would not cause or contribute to a violation of the primary 1-hour NAAQS for NO2.

V. EPD's Draft Permit Fails to Impose Adequate Emission Limits.

A. Pursuant to the State's Maintenance Plan for Ozone, EPD Must Impose Emission Limits that Reflect the Lowest Achievable Emission Rate for NO_X and VOC.

As discussed in Section II, Georgia Power's proposed expansion of Plant Bowen must be subject to NAA-NSR for its proposed increase in emissions of ozone precursors, pursuant to the state's federally enforceable Maintenance Plan. Among other things, this requires EPD to impose enforceable emission limits that reflect the "lowest achievable emission rate" (LAER) for NO_X and VOC. LAER is defined as "the most stringent emissions limitation" that is either "achieved in practice" or contained in the SIP or applicable regulations for the source category, "whichever is more stringent."[141] However, neither Georgia Power nor EPD has performed a LAER analysis to determine the most stringent applicable or achievable emission rate for either NOx or VOC. Instead, the draft permit includes limits proposed by Georgia Power based on its analysis of the "best available control technology" (BACT). The failure to even evaluate LAER, much less impose LAER-level emission limits, is a fatal flaw in the draft permit.

B. The Proposed BACT Limit for NO_x Emissions from the Combustion Turbines Does Not Reflect the Maximum Degree of Reduction Achieved at Similar Facilities.

Even if the project site was not in an area that is measuring nonattainment for ozone and subject to the contingency measures in the Maintenance Plan, the draft permit is legally deficient because it fails to impose BACT-level limits for NO_x emissions from the combustion turbines. BACT is defined as an emission limit that reflects the "maximum degree of reduction" that is "achievable" for the facility through implementation of pollution controls.[142] As explained below, EPD must (1) impose a shorter averaging period, (2) impose limits applicable to startup, shutdown, and fuel-switching operations, (3) impose limits on simple-cycle operation, which

[140] *See* Application Vol. II at 37 tbl. 5-4.
[141] 42 U.S.C. § 7501(3).
[142] 42 U.S.C. § 7479(3).

involves bypassing pollution controls, and (4) evaluate the option of using only methane gas or at least minimizing the firing of distillate oil, which results in higher emissions.

1) EPD Must Impose a Shorter Averaging Time for Purposes of Compliance with the NOx Limit Applicable During Normal Operations.

The Draft Permit proposes to adopt the NO_x limit proposed by Georgia Power for normal turbine operations: 2.0 ppmvd, corrected to 15% oxygen, on a 4-hour rolling average.[143] EPD must impose a more stringent averaging period in order to reflect the maximum degree of reduction achieved at similar facilities.

A brief search of the EPA's RACT/BACT/LAER Clearinghouse ("RBLC") reveals that at least nine similar facilities— large (>25MW) methane gas-fired combined-cycle combustion turbines—permitted in the last seven years are subject to a NOx BACT limit of 2.0 ppmvd with an averaging period shorter than four hours. Four of these facilities are subject to a 3-hour average, while the other five are subject to a 1-hour average. Notably, two of those subject to a 1-hour average were permitted more than five years ago.

Table 1: Facilities Subject to a NOx BACT Limit of 2.0 ppmvd, 1-Hour Averaging Time[144]

RBLC #	Permit Issued	Facility	State	Manufacturer	Model
IL-0133[145]	7/29/2022	Lincoln Land Energy Center	Illinois	Siemens	*Unknown*
LA-0391[146]	6/03/2022	Magnolia Power Generating Station	Louisiana	*Unknown*	*Unknown*
PA-0334[147]	4/29/2021	Renovo Energy Center	Pennsylvania	General Electric	7HA.02
VA-0332[148]	6/24/2019	Chickahominy Power LLC	Virginia	Mitsubishi	M501JAC
VA-0328[149]	4/26/2018	Novi Energy C4GT	Virginia	General Electric	7HA.02
				Siemens	SGT6-8000H

[143] Draft Permit at 6.
[144] *See* NO_X 1-hr Examples, Attachment 1.
[145] Facility Information for Lincoln Land Energy Ctr., EPA (last modified Dec. 6, 2022), https://perma.cc/D9HG-GXUS.
[146] Facility Information for Magnolia Power LLC, EPA (last modified May 23, 2023), https://perma.cc/T44N-9GXG.
[147] Facility Information for Renovo Energy Center LLC, EPA (last modified May 23, 2023), https://perma.cc/9XZ2-MUYH.
[148] Facility Information for Chickahominy Power LLC, EPA (last modified May 19, 2021), https://perma.cc/HR8W-UKVN.
[149] Facility Information for Novi Energy C4GT, LLC, EPA (last modified June 19, 2019), https://perma.cc/5PAK-UUFF.

Table 2: Facilities Subject to a NOx BACT Limit of 2.0 ppmvd, 3-Hour Averaging Time[150]

RBLC #	Permit Issued	Facility	State	Manufacturer	Model
IN-0365[151]	6/19/2023	Maple Creek Energy	Indiana	General Electric	7HA.03
				Siemens	SCC6-9000HL
AK-0088[152]	7/07/2022	AK Gasline Development Corp.	Alaska	*Unknown*	*Unknown*
WV-0033[153]	1/05/2022	Mountain State Clean Energy	West Virginia	General Electric	7HA.03
				Mitsubishi	M501JAC
AL-0328[154]	11/09/2020	Plant Barry Generating Station	Alabama	Mitsubishi	M501JAC

These facts alone warrant imposition of a 1-hour averaging period in this case, as it represents the maximum degree of reduction of NOx emissions that is achievable, as demonstrated by similar facilities. When the Atlanta area's current high ozone levels are also considered, it becomes inconceivable for EPD to impose anything less stringent than a 1-hour averaging period.

2) EPD Must Impose Short-Term Emission Limits and/or Operational Limitations on Startup, Shutdown, and Fuel Switching.

EPD's proposed short-term NOx limit specifically excludes "periods of startup, shutdown, and fuel switching."[155] Although the draft permit includes definitions for each of these excluded operating scenarios,[156] it does not impose any limitations on their frequency or their total hours per year. The only BACT limit that EPD proposes to apply during these scenarios is an annual limit of 203.7 tons of NOx.[157] This is particularly concerning because the proposed NOx controls, including the low-NOx burners, would not be operational (or fully operational) during startup and shutdown.

To satisfy the BACT requirement, EPD must impose short-term emission limits and/or operational limits on operations during startup, shutdown, and fuel-switching. Such limits must be based on a full analysis by Georgia Power of potential controls and corresponding short-term

[150] *See* NO_X 3-hr Examples, Attachment 2.
[151] Facility Information for Maple Creek Energy LLC, EPA (last modified Aug. 15, 2023), https://perma.cc/KE4C-AJNN.
[152] Facility Information for Alaska Gasline Dev. Corp., EPA (last modified Aug. 16, 2022), https://perma.cc/97DM-6JP9.
[153] Facility Information for Mountain State Clean Energy, LLC, EPA (last modified June 28, 2022), https://perma.cc/3JJ3-RSAS.
[154] Facility Information for Plant Barry, EPA (last modified Mar. 4, 2022), https://perma.cc/7MXK-H3WY.
[155] Preliminary Determination at 101 tbl. 4-18.
[156] Draft Permit at 7–8.
[157] Preliminary Determination at 101 tbl. 4-18.

limits applicable during startup, shutdown, and fuel switching.[158] In addition, limiting the frequency and total annual operating time of the turbines in these operating scenarios must be considered as part of the BACT analysis in order to ensure that the extent to which the turbines are allowed to operate without effective NOx controls is limited to the "maximum degree" achievable.[159]

3) The Draft Permit Fails to Impose Any Limitations on Simple-Cycle Operation of the Combustion Turbines When Pollution Controls are Bypassed.

Georgia Power proposes using SCR and catalytic oxidation systems to control emissions of NOx, CO, and VOC from the combined-cycle electric generating units.[160] However, the application notes that the SCR and oxidation catalyst systems would be installed inside each heat recovery steam generator ("HRSG").[161] This means that whenever the HRSG is not in use—whether it is down for maintenance, methane gas is not available to fire the duct burners,[162] or Georgia Power chooses to operate in simple-cycle mode[163]—the exhaust from the associated combustion turbine will bypass those critical emission controls.

The draft permit does not prohibit operation of the turbines in simple-cycle mode and does not impose any restrictions on the frequency, duration, or justification for such operations. EPD must either prohibit any use of the turbines in simple-cycle mode or require Georgia Power to perform a full analysis of potential controls for simple-cycle operations—including SCR, catalytic oxidation systems, and operational limitations—and impose corresponding emission limits.[164]

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[158] *See, e.g.*, NO_X Startup-Shutdown Examples, Attachment 3 at 1 (showing the combined-cycle combustion turbine at the Erickson Station in Michigan is subject to a NOx BACT limit of 60 lb/hr during startup/shutdown); *id.* at 3–4 (showing the combined-cycle combustion turbine at the Lincoln Land Energy Center in Illinois is subject to a NOx BACT limit of 55 lb/hr during shutdown, 71 lb/hr during non-cold startup, and 130 lb/hr during cold startup); *id.* at 5–6 (showing the combined cycle combustion turbine at the Marshall Energy Center South in Michigan is subject to a NOx BACT limit of 126.5 lb/hr during startup/shutdown); *id.* at 7–8 (showing the combined-cycle combustion turbine at the Midland CoGeneration facility in Michigan is subject to a NOx BACT limit of 851.2 lb/hr during startup/shutdown).

[159] *See, e.g.*, NO_X Startup-Shutdown Examples, Attachment 3 at 6 (showing the combined-cycle combustion turbine at the Marshall Energy Center South in Michigan is subject to an operational BACT limit of 300 hours/year in startup/shutdown mode).

[160] Application Vol. I at 7.

[161] *Id.*

[162] The application states: "Each HRSG will be equipped with natural gas-fired duct burners which can be used to provide additional steam generating capacity only when the [combustion turbine] is firing natural gas." *Id.*

[163] Although the application does not request authorization to operate the new combustion turbines in simple-cycle mode, permit applications for similar facilities demonstrate that it is a likely scenario. *See, e.g.* TVA Kingston Combine Cycle Project Air Permit-to-Construct Application, https://perma.cc/926R-AYP4 at 2-2 (explaining that "bypass stacks" would be used if the "combined cycle train's steam cycle [HRSG or steam turbine] is unavailable)"); *id.* at B-5, B-6 (estimating emissions based on 500 hours per year of simple-cycle operation of its combined-cycle units).

[164] *See, e.g.*, NO_X Bypass Examples, Attachment 4 at 1 (showing the combined-cycle combustion turbine at the Alaska Gasline Development Corp.'s Liquefaction Plant is subject to an operational BACT limit of 40 hours/year in HRSG bypass mode); *id.* at 3–4 (showing the combined-cycle combustion turbines at the Erickson Station in Michigan are subject to a NOx BACT limit of 25 ppmvd and 60 lb/hr during HRSG bypass mode).

4) The BACT Analysis Fails to Evaluate the Exclusive Use of Methane Gas or More Stringent Limitations on the Use of Distillate Fuel Oil.

The exclusive use of methane gas to fire the combustion turbines must be evaluated as a potential control option in the BACT analysis because it is a technically feasible and cost-effective measure to reduce emissions of NOx. The statutory definition of BACT specifically includes "clean fuels" as a potential control option to be evaluated.[165] Moreover, the "exclusive use of natural [methane] gas" is identified in EPD's Preliminary Determination as the selected BACT control for emissions of SO_2 and greenhouse gases from the water bath heaters, demonstrating it is a valid control option to consider as BACT.[166] EPD must therefore require Georgia Power to evaluate the exclusive use of methane gas[167]—or, at a minimum, more stringent restrictions on the use of distillate fuel oil—as a potential control option for the combustion turbines.

C. EPD Should Impose More Stringent Limits on Emissions of Ozone Precursors During the Ozone Season.

To ensure that the Bowen Plant expansion will not cause or contribute to a violation of the 2015 Ozone NAAQS, EPD must revise the permit to include more stringent limits on ozone-precursor emissions during the ozone season. Because ground-level ozone is formed through the reaction of NOx and VOC with heat and sunlight, peak ozone concentrations typically occur during the warmer months of the year. Although the draft permit imposes certain limits on the facility's NOx emissions during ozone season—May 1 through September 30 of each year—these limits are far above the proposed BACT NOx limits for the turbines[168] and are therefore completely ineffective at further reducing emissions of ozone precursors from the combustion turbines during ozone season. EPD must therefore require Georgia Power to evaluate more stringent limits on emissions of ozone precursors to apply during the ozone season.

D. The BACT Analysis for Greenhouse Gas Emissions from the Combustion Turbines Fails to Consider the Applicable New Source Performance Standards.

Federal PSD regulations clearly establish that BACT limits cannot be less stringent than the applicable New Source Performance Standards ("NSPS"): "In no event shall application of

[165] 42 U.S.C. § 7479(3).
[166] Preliminary Determination at 104 tbl. 4-18.
[167] *See, e.g.*, Alaska Gasline Permit, Attachment 5 at tbl. 3 (showing the combined-cycle combustion turbine[s] at the Alaska Gasline Development Corp. Liquefaction Plant [is/are] subject to a BACT requirement to exclusively use natural gas).
[168] Condition 3.4.23 establishes a NOx limit of 6.0 ppmvd during ozone season, whereas the proposed BACT limits are 2.0 ppmvd for natural gas combustion and 5.0 ppmvd for distillate fuel oil combustion. Condition 6.1.7.b.ii defines as an "exceedance" the emission of more than 32,335.8 tons of NOx during a single ozone season, whereas the proposed *annual* BACT limit for the turbines is 203.7 tons (12-month rolling average).

best available control technology result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR part 60."[169]

Notably, EPD's Preliminary Determination fails to identify that 40 CFR 60 Subpart TTTTa is applicable to the combustion turbines. In fact, EPD erroneously characterizes this NSPS as a "proposed rule"[170] and then goes on to speculate as to what the applicable NSPS would be in the event that "Subpart TTTTa is vacated or repealed."[171] First, this NSPS has been finalized and is currently in effect. Although EPA has proposed repealing or revising it, it has not taken final action on that proposal. Second, it is not a foregone conclusion that this NSPS will be "vacated or repealed." Indeed, EPA's pending proposal includes "an alternative" to a full repeal of the rule.[172] And even if it is ultimately repealed in full, that action may be overturned on appeal. All of these potentialities demonstrate why it is inappropriate for a permitting agency to speculate as to potential future regulatory actions when determining what the currently applicable standard is.

Because Subpart TTTTa is applicable and currently in effect, EPD must treat its CO_2e emission standard as the floor for BACT. Because the proposed combined-cycle units will be used for baseload power, the applicable standard for gross energy output is "800 to 1,250 lb CO_2/MWh."[173] However, EPD's proposed BACT limit is "905 lb CO_2e/MWh-gross."[174] This proposed limit exceeds the lower end of the range for the applicable NSPS and does not reflect the maximum degree of reduction that is achievable, as demonstrated by limits imposed on similar facilities.[175] As a result, EPD must require Georgia Power to perform a supplemental BACT analysis that takes into account the currently applicable NSPS and revise the CO_2e emission limit accordingly.

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[169] 40 C.F.R. § 52.21(b)(12); *see also* Ga. Comp. R. & Regs. 391-3-1-.02(7)(a)(2) (incorporating and adopting by reference the PSD requirement in 40 C.F.R. § 52.21(b)(12)).
[170] Preliminary Determination at 14.
[171] *Id.* at 15.
[172] *See* Repeal of Greenhouse Gas Emissions Standards for Fossil Fuel-Fired Electric Generating Units, 90 Fed. Reg. 25,752 (June 17, 2025) ("The EPA is also proposing, as an alternative, to repeal a narrower set of requirements[.]").
[173] 40 C.F.R. 60 Subpart TTTTa, tbl. 1.
[174] Preliminary Determination at 102 tbl. 4-18.
[175] *See, e.g.*, Indiana Dep't of Env't Mgmt., *Operation Permit No. T153-45909-00056* at 30–32 (June 19, 2023), https://perma.cc/B26S-UE4L (showing the combined-cycle combustion turbine at the Maple Creek Energy facility in Indiana is subject to a CO_2 limit of 726 lb/MW-hr if using a Siemens Model SCC6-90000HL or 826 lb/MW-hr gross if using a General Electric Model 7HA.03); La. Dep't of Env't Quality, *Prevention of Significant Deterioration Permit PSD-LA-839* at 51 (June 3, 2022), https://perma.cc/L6PC-3CF4 (showing the combined-cycle combustion turbine at the Magnolia Power Generating Station is subject to a CO_2e limit of 875 lb/MW-hr); Pa. Dep't of Env't Prot., *Plan Approval No. 18-00033B* at 23, 32 (Apr. 29, 2021), https://perma.cc/3SAW-W623(showing the combined-cycle combustion turbines at the Renovo Energy Center in Virginia are subject to a CO2 limit of 894 lb/MW-hr).https://perma.cc/3SAW-W623(showing the combined-cycle combustion turbines at the Renovo Energy Center in Virginia are subject to a CO2 limit of 894 lb/MW-hr).

VI. EPD's Preliminary Determination Fails to Reference Georgia Power's Regional Haze Analysis or Any Consultation with Federal Land Managers Regarding the Project's Potential Impacts on Visibility in Nearby Class I Areas.

The Clean Air Act requires major modifications such as this one to undergo an analysis of the proposal's potential impacts on air quality related values, including visibility, "in the area potentially affected by the emissions from such facility."[176] This analysis must be provided by the project proponent in the permit application.[177] To protect against visibility impairment in special places like National Parks and Wilderness Areas ("Class I Areas"), the Act also requires consultation with the Federal Land Manager(s) for any such areas that "may be affected" by the project's emissions.[178]

The Act imposes "an affirmative responsibility" on Federal Land Managers "to protect the air quality related values (including visibility) of any such lands" and "to consider, in consultation with the [EPA] Administrator, whether a proposed major emitting facility will have an adverse impact on such values."[179] To enable the Federal Land Managers to comply with this statutory obligation, they must be provided with "all information relevant to the permit application," including the required "analysis of the proposed source's anticipated impacts on visibility in the Federal Class I area," the permitting agency's "preliminary determination," and "any materials used in making that determination."[180] This information "shall be given" to the Federal Land Managers "within 30 days of receipt and at least 60 days prior to any public hearing on the application for a permit to construct."[181] If, after reviewing all of this information, a Federal Land Manager demonstrates that the project's emissions "will have an adverse impact," the requested permit "shall not be issued."[182]

EPD's Preliminary Determination notes that there are five Class I areas within 300 kilometers of Plant Bowen: Cohutta Wilderness Area in Georgia, Sipsey Wilderness Area in Alabama, Great Smoky Mountains National Park in Tennessee, and Shining Rock and Joyce Kilmer Wilderness Areas in North Carolina.[183] However, the Preliminary Determination does not contain any information about the project's potential impacts on visibility in these areas. Instead, such information appears exclusively in Georgia Power's permit application.[184]

Instead of summarizing Georgia Power's analysis of potential impacts on visibility in Class I areas, EPD's Preliminary Determination describes the application's analysis of potential impacts on a nearby State Historic Site.[185] Moreover, it appears EPD copied-and-pasted a

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[176] 42 U.S.C. § 7475(e)(3)(B).
[177] 40 C.F.R. § 52.21(o)(1) (incorporated by reference in GA Rule 391-3-1-.02(7)(b)(12)).
[178] 42 U.S.C. § 7475(d)(2).
[179] *Id.* § 7475(d)(2)(B).
[180] 40 C.F.R. § 52.21(p)(1) (incorporated by reference in GA Rule 391-3-1-.02(7)(b)(13)).
[181] *Id.*
[182] 42 U.S.C. § 7475 (d)(2)(C)(ii).
[183] Preliminary Determination at 115.
[184] *See* Application Vol. II at 51–58.
[185] *See* Preliminary Determination at 116–118; *see also* Application Vol. II at 59–60. The application notes that plume perceptibility and plume contrast values both exceeded applicable screening thresholds and that plume perceptibility against a "terrain" background exceeded the "significance" criterion. Application Vol. II at 59–60.

summary of a visibility analysis performed in a separate permitting action for a "mill."[186] This calls into question whether other sections of the Preliminary Determination were simply imported from a separate permitting action for an entirely different facility.

An important purpose of the Preliminary Determination is to summarize key information from the permit application in plain language to assist members of the public, who may not have relevant technical expertise, in understanding the scope of the proposed project and its potential impacts. EPD's failure to describe or even reference Georgia Power's Class I visibility analysis in the Preliminary Determination therefore makes it more difficult for the public to understand and make informed comments on the results of that analysis.[187] This is particularly concerning given the potential for the proposed expansion of Plant Bowen to exacerbate the facility's adverse impacts on nearby Class I areas and the significant public interest in protecting scenic vistas in these special places.

According to the National Park Service, Plant Bowen is ranked *number one* among all Georgia facilities for contributions to visibility impairment in Class I Areas in the Southeast.[188] During the last round of planning under the Act's Regional Haze Program, four other states—Tennessee, North Carolina, South Carolina, and Florida—requested that EPD evaluate additional pollution controls for existing units at Plant Bowen due to the facility's outsized contribution to visibility impairment in those states' Class I Areas.[189] The National Park Service also specifically recommended that EPD evaluate additional controls for Plant Bowen, such as scrubber upgrades and optimization, and to impose more stringent NOx emission limits.[190] Nevertheless, EPD declined to require Georgia Power to implement any additional controls. Now, the proposed expansion of Plant Bowen threatens to exacerbate the harm already caused by the agency's refusal to require Georgia Power to reduce its emissions of haze-forming pollutants.

In addition, the Preliminary Determination fails to disclose whether EPD complied with the statutory requirement to provide notice to EPA of Georgia Power's permit application and "every action related to the consideration of such permit" as needed to initiate the required

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However, it summarily dismisses this finding of significance: "[G]iven that there are no elevated scenic vistas with terrain as background for this area, visual impacts on terrain should not be a critical value. *Id.* at 60. Notably, the application does not reflect any analysis of potential impacts on Red Top Mountain State Park, which is less than 10 miles to the east of the project site and is one of the most frequented state parks in Georgia.

[186] Preliminary Determination at 116 ("To otherwise demonstrate that visibility impairment will not result from continued operation *of the mill*, the VISCREEN model was used…"); *id.* at 118 ("Therefore, the proposed modifications to [the] facility are not anticipated to cause adverse impacts on visibility at the sensitive receptors in the area surrounding *the mill*.").

[187] In addition, this analysis appears in Volume II of the application, which is not as easily accessible on EPD's website as the Preliminary Determination and Volume I of the application.

[188] *See* National Park Service Regional Haze Powerpoint, Attachment 6 at 33; *see also id.* at 35-36 (showing that Plant Bowen's emission rates of haze-forming pollutants "have been increasing for the last decade"); Regional Haze Interactive Map, Nat'l Parks Conservation Ass'n, https://experience.arcgis.com/experience/46dd650b65284b64bf38ccba0e90af8b/?org=npca (last visited Oct. 14, 2025). NPCA's analysis shows that emissions from the existing units at Plant Bowen likely affect 23 Class I areas with a Q/d value of 5 or more.

[189] *See* Ga. Env't Prot. Div., *Georgia's State Implementation Plan for Regional Haze (Second Planning Period)* at 198-99, tbls. 7-32 & 7-33 (Aug. 11, 2022), https://perma.cc/9UF4-2YN3.

[190] *See* National Park Service Regional Haze Presentation, Attachment 6 at 34, 37; National Park Service Regional Haze Letter, Attachment 7 at 1.

consultation with Federal Land Managers.[191] It also fails to document whether the Federal Land Managers were provided with "all information relevant to the permit application" within 30 days of its receipt and at least 60 days before the October 14 public hearing. Indeed, there is no mention of any such consultation having been performed at all. Notably, this apparent violation of the Clean Air Act and PSD regulations cannot be rapidly cured at this point, as the Federal Land Managers are furloughed and prohibited from working for as long as the federal government remains shut down.

To remedy these deficiencies, EPD must provide all relevant information to the Federal Land Managers and complete the required consultation according to the prescribed timeline. If any Federal Land Manager determines that the proposed project's emissions of any pollutants subject to PSD review would have the potential to "adverse[ly] impact" air quality related values at any Class I Area, EPD must deny the permit.

In the event this consultation was already performed despite not being documented in the permitting record, we urge EPD to make the results of the consultation publicly available and initiate a new public comment period with an additional public hearing so the public has a meaningful opportunity to review and provide input on this important issue.

VII. EPD's and Georgia Power's Failure to Disclose Critical Information Regarding the Project Units' Capacity, Efficiency, and Planned Commercial Operation Dates Deprived the Public of a Meaningful Opportunity to Comment on the Draft Permit.

At Georgia Power's request, the permit application made available to the public during the comment period included redactions of critical information regarding the capacity, efficiency, and planned commercial operation dates of the four proposed combined cycle electric generating units.[192] The public must have access to that information in order to fully assess the project's impact on ambient air quality and the adequacy of permit conditions governing the units' construction and eventual operation, which is the central purpose of the public comment period. Thus, EPD's failure to make this critical emissions information available to the public denied commenters a meaningful opportunity to participate in this permit proceeding. To remedy this problem, EPD must make information about the capacity, efficiency, and planned commercial operation dates of all four units publicly available and provide a renewed opportunity for public comment.

[191] 42 U.S.C. § 7475(d)(1).

[192] On March 12, 2025, Sierra Club sent a request to EPD for a copy of the air permit application for the proposed project at Plant Bowen. On March 13, after receiving a hyperlink to a website from which a redacted version of the permit application could be downloaded, Sierra Club asked EPD how to access an unredacted version of the application. EPD responded: "The only version of the application that you can view is the one in GEOS." On September 25, 2025, Sierra Club and SELC filed a Georgia Open Records Act request for the unredacted version of Georgia Power's Application, which EPD subsequently denied. Then, on September 29, 2025, Sierra Club proposed entering into a non-disclosure agreement with EPD. EPD also denied this request. *See* Correspondence Between Sierra Club & EPD, Attachment 8.

A. Georgia Power's Request for EPD to Keep Capacity, Efficiency, and Planned Commercial Operation Dates Confidential Was Unjustified and Inconsistent with Treatment of the Same or Similar Information by Other Companies and by the Georgia Public Service Commission.

In accordance with O.C.G.A. § 50-18-72(a)(34), Georgia Power attached to its Application the affidavit of Jonathan Bandzul (Air Manager of Georgia Power) in support of Georgia Power's claims that information is protected under Georgia law from disclosure to the public. The affidavit declares that:

> [I]nformation contained in the Submittal to EPD is protected under the Georgia Open Records Act, O.C.G.A. § 50-18-70, *et seq*., from disclosure to the public and that the Redacted Copy is submitted to EPD as is, and that the Protected Copy is submitted to EPD with the expectation and understanding that information contained therein is subject to the claim Georgia Power declares in this affidavit that such information is protected under Georgia law from disclosure to the public.[193]

The affidavit further states that:

> The vendor name, capacity, and commercial operation dates of the CCs that are the subject of the Submittal constitute a Trade Secret because this is proprietary commercial information that is being considered in a competitive bidding process authorized and overseen by the Georgia Public Service Commission ("Commission"). Disclosure of this information could harm the Company's ability to compete in this solicitation and disrupt the Commission-authorized bidding process, which is intended to ensure that the optimal portfolio of capacity resources is identified to serve the Company's customers. The Trade Secret is not commonly known and not readily ascertainable by reasonable means by persons not involved with the confidential bidding process. Georgia Power has made reasonable efforts to maintain the secrecy of this Trade Secret, which efforts include, but are not limited to, limiting and controlling employee access to such information and prohibiting public disclosure of such information. Only select Georgia Power and Southern Company personnel are granted access to the Trade Secret information and those personnel receive access only on a "need to know" basis. Georgia Power submits this affidavit in furtherance of its ongoing and continual efforts to maintain the secrecy of the Trade Secret.[194]

[193] Application Vol. I at 1 (Affidavit of Jonathan Bandzul).
[194] Application Vol. I at 2 (Affidavit of Jonathan Bandzul).

Georgia Power's justification for redacting information from the application is inadequate for at least three reasons. First, as a general matter (and as EPD can easily assess by reviewing Oglethorpe's pending air permit application for the Smarr Combined Cycle Energy Facility), other electric utilities regularly submit air permit applications that include the information that Georgia Power has redacted in its application. For example, while Georgia Power is not disclosing the megawatt number or the vendor information of its proposed combined cycle turbines, Oglethorpe's air permit application for the Smarr facility—which EPD has noticed for public comment as well[195]—reveals the following:

- "The Smarr Combined Cycle Energy Facility will be a natural gas-fired combined cycle facility capable of producing a nominal power output of *1,425 megawatts* (MW)."[196]
- "Each [combined cycle combustion turbine] will consist of one natural gas-fired *General Electric 7HA* combustion turbine (CT) exhausting to a heat recovery steam generator (HRSG)."[197]

Sierra Club monitors air permit applications for proposed combined cycle facilities across the country, and it is not at all common to see an applicant redact the information that Georgia Power has redacted here. For example, the Arizona Department of Environmental Quality has received several air permit applications in the last six months that disclose the information that is redacted in Georgia Power's Application.[198]

The Georgia Trade Secrets Act, O.C.G.A. Section 10-1-760, *et seq.*, defines "trade secret" as information "which is not commonly known by or available to the public" and which "(A) Derives economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by, other persons who can obtain economic value from its disclosure or use;" and (B) "Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy."[199] Contrary to the Georgia Trade Secrets Act's definition of trade secret, the information that Georgia Power refuses to disclose to the public *is* commonly known by *and* available to the public.[200] On this basis alone, EPD should reconsider the Draft Permit, require Georgia Power to disclose the information it has redacted, and restart the public comment period.

Second, regarding Georgia Power's claim that disclosure of certain information "could harm Georgia Power's ability to compete in this solicitation and disrupt the Commission-authorized bidding process, which is intended to ensure that the optimal portfolio of capacity

[195] Ga. Env't Prot. Div., Georgia Air Protection Branch Public Advisory (Apr. 16, 2025), https://perma.cc/Z5NA-MGNU.
[196] Ga. Env't Prot. Div., Draft Air Quality Permit—Smarr Combined Cycle Energy Facility 1, https://perma.cc/E6HR-ZPSU (emphasis added).
[197] *Id.* (emphasis added).
[198] *See* Seguro Energy Partners, LLC, Application for Class I Permit for The Bella Energy Project, Buckeye, Arizona (Aug. 30, 2023), Attachment 9; UNS Electric, Inc., Updated Title V / Class I Permit Revision Application Combustion Turbines Project At Black Mountain Generating Station Kingman, Mohave County, Arizona Title V / Class I Permit Number: 96392 (Apr. 2024, updated Feb. 2025), Attachment 10; Ariz. Pub. Serv., Redhawk Power Plant Construction and Title V Air Quality Operating Permit Significant Revision Application, Permit Number P0009401 Natural Gas-Fired Simple Cycle Combustion Turbine Expansion Project (Apr. 2024), Attachment 11.
[199] Ga. Trade Secrets Act, O.C.G.A. §10-1-761.
[200] *See infra* tbls. 3–4.

resources is identified to serve the Company's customers,"[201] while that may have been true before Georgia Power initiated the All-Source certification process with the Georgia Public Service Commission, it no longer holds since the Company filed its request for certification in Docket No. 56298 on July 30, 2025.[202] Whatever secrecy was beneficial during the initial stages of Georgia Power's bidding process is no longer warranted.

In fact, as part of its request for certification, Georgia Power revealed to the public some of the information that it is claiming is confidential here, including the capacity of the two of the combined-cycle electric generating units, along with their expected commercial operation dates:

Table 3: Georgia Power's Company-Owned Projects MWs (2029-2031 All-Source RFP)[203]

Table 1.3.3 - COP Thermal Projects				
Facility Name	**Winter Capacity (MW)**	**Summer Capacity (MW)**	**Asset Life (Years)**	**Location (City, State)**
12. Bowen Units 7-8 (CC)	1,561	1,482	45	Euharlee, Georgia
13. Wansley Units 10-11 (CC)	1,531	1,453	45	Carrollton, Georgia
14. McIntosh Unit 12 (CC)	797	757	45	Rincon, Georgia

Table 4: Georgia Power's Company-Owned Projects Commercial Operation Dates (2029-2031 All-Source RFP)[204]

Table 7.1 - COP Thermal Projects				
Facility Name	**Location (City, ST)**	**Capacity (MW)**	**COD**	**Asset Life (Years)**
Bowen Units 7-8 (CCs)	Euharlee, GA	1,561	Unit 7 - 11/1/2029 Unit 8 - 05/1/2030	45
Wansley Units 10-11 (CCs)*	Carrollton, GA	1,531	Unit 10 - 11/1/2029 Unit 11 - 05/1/2030	45
McIntosh Unit 12 (CC)	Rincon, GA	797	11/1/2030	45
*Note: Dalton Utilities will be receiving a total of 1.5% (~ 23MW) of the total output (and associated cost) of the "Wansley Units 10-11 (CCs)". The capacity and cost being requested for certification represents GPC's portion of the facility only.				

The public should not have to search the Georgia Public Service Commission docket to locate emissions and operational information that is central to this air permit proceeding. In any event, the Public Service Commission proceeding only addressed **two** of the **four** combined cycle units for which Georgia Power is seeking construction approval in this permit proceeding. And even for the two that were addressed in the separate Public Service Commission proceeding, Georgia Power did not provide information regarding the units' efficiency, impairing the

[201] Application Vol. I at *2 (Affidavit of Jonathan Bandzul).
[202] Ga. Pub. Serv. Comm'n Docket No. 52698: Georgia Power's Application for the Certification of the 2029-2031 All-Source Capacity RFP, Georgia Power's Application for the Certification of the All- Source Capacity Power Purchase Agreements and Company-Owned Proposals (Jul. 30, 2025), https://perma.cc/4BZX-ZGE4.
[203] *Id.* at 3.
[204] *Id.* at 39.

public's ability to evaluate the adequacy of the draft permit's BACT requirements for greenhouse gases. EPD should require Georgia Power to file a supplemental application to disclose all information that is currently redacted.

Redacted versions of permit applications containing confidential information must be narrowly tailored because the public should not be required to comment on incomplete applications that lack sufficient information.[205] Georgia law requires air permit applications to be available to the public, with very limited exceptions that, as explained above, do not apply here.[206] Additionally, EPD's own guidance recognizes that, "[w]hen drafting a rule or writing a permit, our engineers and scientists rely on science and the law," and "count on experts and the public to offer suggestions to make rules and permits better."[207]

Transparency and informed public participation are vital in air permitting. Information and data that are relevant to a proposed project's emissions must be shared with the general public; otherwise, the public comment process would be rendered ineffective and meaningless. EPD must require Georgia Power to comply with Georgia law and require Georgia Power to disclose all of the information needed for the public to assess the plant expansion's impact on ambient air quality and the adequacy of its air pollution controls.

B. EPD's Withholding of Critical Information Violates the Clean Air Act's Requirement that Title V and PSD Permit Proceedings Provide an Opportunity for Meaningful Public Participation.

The withholding by EPD and Georgia Power of critical permit application information needed to properly analyze the proposed plant expansion's emissions, its impact on ambient air quality, and the adequacy of the BACT determinations unlawfully denied the public a meaningful opportunity to participate in this joint Title V/PSD permit proceeding as required by the Clean Air Act. Specifically, public participation was significantly impaired by EPD's decision to allow Georgia Power to redact permit application information identifying the capacity, efficiency, and operational dates of the four proposed combined cycle units.

In accordance with federal and state Title V regulations and a long line of EPA Title V orders,[208] EPD may not issue Georgia Power's requested permit without first providing the public with this key information and offering a new opportunity for written and oral comments. EPA's Title V regulations at 40 C.F.R. § 70.7(a)(l) provide that a permit may be issued only if, among other things, the permitting authority "has received a complete application" and "has complied with the requirements for public participation under paragraph (h) of this section." With regard to a permit application, EPA's regulations provide: "An application may not omit information needed to determine the applicability of, or to impose, any applicable requirement."

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[205] *See Hardaway Co. v. Rives*, 262 Ga. 631, 634 (1992) ("any purported statutory exemption from disclosure under the Open Records Act must be narrowly construed").

[206] "Except as to information required to be kept confidential by O.C.G.A. Section 12-9-19, as amended all applications for construction permits and operating permits shall be public record." Ga. Comp. R. & Regs. 391-3-1-.03(5).

[207] Ga. Envtl. Prot. Div., *The Public Participation Process*, https://perma.cc/N4LH-2NCT.

[208] *See, e.g., In the Matter of U.S. Department of Energy – Hanford Operations*, Order on Petition No. X-2016-13 (Oct. 15, 2018), https://perma.cc/9LUH-ATEJ [hereinafter "Hanford Order"].

40 C.F.R. § 70.5(c); *see also* 40 C.F.R. § 70.5(a)(2) (stating, among other things, that "[i]nformation required under paragraph (c) of this section must be sufficient to evaluate the subject source and its application and to determine all applicable requirements").

These regulations require each Title V permit to include, among other things, "[e]mission limits and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance" and "compliance certification, testing, monitoring, reporting and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(a)(l), (c)(l). Regarding public participation, the regulations require that Title V permit proceedings[209] "provide adequate procedures for public notice including offering an opportunity for public comment and a hearing on the draft permit." 40 C.F.R. § 70.7(h). Finally, the regulations require that the public notice "identify ... a person from whom interested persons may obtain additional information, including copies of the permit draft, the application, all relevant supporting materials ... and all other materials available to the permitting authority that are relevant to the permit decision." 40 C.F.R. § 70.7(h)(2).

EPA has explained that a permitting agency's failure to make specific information available during a Title V public comment period contravenes applicable public participation requirements if "the unavailability deprived the public of the opportunity to meaningfully participate during the permitting process."[210] To assess whether this is the case, "EPA generally looks to whether the petitioner has demonstrated 'that the alleged flaws resulted in, or may have resulted in, a deficiency in the permit's content.'"[211]

Clean Air Act section 165(a)(2) likewise requires PSD permit proceedings to include an opportunity for members of the public "to appear and submit written and oral presentations on the air quality impact of such source, alternatives thereto, control technology requirements, and other appropriate considerations." As under Title V, PSD public participation opportunities also must be "meaningful."[212] Thus, for example, EPA's Environmental Appeals Board has held that a PSD permitting agency denied a "meaningful" opportunity for public participation when they only provided the public with PSD increment consumption data for the area with the greatest projected consumption rather than data for all of the impacted areas.[213] The EAB explained that without such data, the public's "ability to comment on the air quality impact and proposed alternatives would be severely limited."[214] EPD's failure to make information available to the public regarding the capacity, efficiency, and planned operation dates of Georgia Power's four proposed combined cycle units likewise denied commenters a meaningful opportunity to provide input on the proposed construction and operating permit for Plant Bowen.

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[209] This requirement expressly applies to significant permit modifications in addition to initial permit issuance and renewals. 40 C.F.R. § 70.7(h).
[210] Hanford Order, *supra* note 209, at 11.
[211] *Id.* (quoting *In re Sirmos Division of Bromante Corp*, Order on Petition No. II-2002-03 (May 24, 2004)).
[212] *In re Hadson Power 14 - Buena Vista*, 4 E.A.D. 258, 1992 WL 345661, at *10 (EAB 1992) ("The Clean Air Act requires meaningful public participation in the PSD permitting process.").
[213] *Id.*
[214] *Id.*

First, identification of the *capacity* of each proposed combined cycle unit is plainly relevant to its emissions and ultimate impact on ambient air quality. The public cannot assess the correctness of EPD's assessment of the plant expansion's impact on Atlanta air quality without knowing the size of the planned units. EPD's failure to make this basic design information publicly available renders its air quality analysis effectively unverifiable.

Second, identification of the *efficiency* of each of the four proposed units is directly relevant to greenhouse gas emissions and the determination of BACT for those units. Since greenhouse gas emissions are directly proportional to the amount of fuel consumed, evaluating BACT for this category of pollutants necessarily involves comparing the efficiency (or heat rate) of alternative turbine designs and configurations. Greenhouse gas BACT determinations for combined cycle projects typically rely on these efficiency benchmarks to set CO_2e emission limits. Indeed, Georgia Power selected "efficient design" as part of its proposed BACT determination.[215] The efficiency of various models of combustion turbines varies significantly; EPD's Preliminary Determination notes: "[t]he Plant's proposed BACT limit is a middle limit of the proposed limits for the facility with 43% [of similar-sized facilities in the RACT/BACT/LAER clearinghouse] that had higher proposed limits."[216] Neither EPD nor Georgia Power explains why the proposed BACT limit for these units is higher than what applies to 43% of similar units in the RACT/BACT/LAER clearinghouse (which itself is notorious for excluding data on large numbers of sources). Instead, Georgia Power simply asserts: "This emission limit *is specific to the type of CT technology and CC configuration of the proposed CC units* and accounts for supplemental firing, periods of operation at low loads, and use of distillate oil as a backup fuel."[217] Based on this explanation, it appears that Georgia Power's choice as to which type of combustion turbine technology to use and other aspects of the equipment's operation impacted the stringency of the proposed BACT limit, yet Georgia Power redacted this critical information from its application and offered no explanation for why it chose a technology and configuration that performs worse than 43% of similar sources listed in the clearinghouse. The public must have information about the efficiency of the selected equipment and Georgia Power's justification for selecting a less efficient design to have a meaningful opportunity to comment on this BACT determination.

Finally, the omission of *operational dates* for each of the four units—and especially for the two units for which Georgia Power has not requested Public Service Commission approval—deprives the public of the ability to assess whether authorizing construction of these units is lawful and appropriate. The PSD program is designed to achieve increasingly stringent emission limits over time based on an analysis of BACT at the time of permitting. Specifically, Clean Air Act section 169(d) defines "best available control technology" to mean "an emission limitation based on the maximum decree of reduction of each pollutant … which the permitting authority, on a case-by-case basis, determines is achievable for such facility." As technology improves, what is determined to be "achievable" in the present likely will be supplanted by more stringent emission limits in ten years from now. Likewise, the longer it takes for a unit to become

[215] Application Vol. I at 65.
[216] Preliminary Determination at 58; *see also* Application Vol. I at 65 ("The level of control for all CC units of a similar configuration, i.e., 1-on-1, without regard to CT technology, operating mode, or fuel, ranges from 726 to 1,384 lb CO2/MWh-gross with an average emission limit of approximately 900 lb CO2/MWh-gross.").
[217] Application Vol. I at 66.

operational, the less likely it is that Georgia Power's demonstration that the plant expansion will not significantly deteriorate air quality or cause or contribute to a NAAQS violation will remain accurate. Especially for the two units for which Georgia Power has not requested Public Service Commission approval, it is possible that it will be a decade or even longer before construction on these units commences. Without a reasonable estimate of when these units will come online, the public cannot assess whether a permitting action is appropriate at this time for those units, or if construction approval should instead be held off until there are realistic plans for constructing and operating these units.

VIII. EPD Must Add Permit Conditions to Ensure that All Authorized Units Will Either Be Constructed in a Timely Manner or Will Have Control Technology and Ambient Air Impacts Reassessed Prior to Construction.

As noted above, based on information from Georgia Public Service Commission proceedings, Georgia Power does not anticipate Combustion Turbine Units 7 and 8 to be operational until 2029 and 2030, respectively. Meanwhile, Georgia Power has not received Public Service Commission authorization for Units 9 and 10 and has not publicized anticipated operational dates for these two units. This raises the very real concern that construction of Units 9 and 10 could occur many years into the future, which will render the BACT and ambient impact analyses for these units obsolete. Approving BACT limits now for units that will not be built for many years deprives the public of future review when new, cleaner technologies are available. Perhaps even more importantly, premature approval of Plant Bowen's construction of highly polluting combustion turbines cannot satisfy the PSD program's goal of assuring "that any decision to permit increased air pollution in any area … is made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decision-making process."[218]

Given the substantial uncertainty regarding when or if Units 9 and 10 will become operational, commenters urge EPD to remove these units from this permit and direct Georgia Power to reapply if and when Georgia Power has firm plans to construct and operate these units. At a bare minimum, commenters ask Georgia EPD to add backstops to the permit that require Georgia Power to undergo new ambient air quality and BACT analyses if construction does not commence prior to specific dates. Draft permit condition 7.14.2 is inadequate for this purpose; while it requires construction to commence within 18 months after permit issuance, it only vaguely requires that construction be completed "within a reasonable time." Especially given Atlanta's recurring difficulties in meeting the ambient air quality standards for ground-level ozone and $PM_{2.5}$, we urge EPD to include specific dates by which construction of the units must be commenced and completed.

[218] 42 U.S.C. § 7470(5).

CONCLUSION

For the foregoing reasons, commenters respectfully request that EPD (1) deny Georgia Power's permit application, (2) instruct Georgia Power to file a new application that addresses the nonattainment New Source Review provisions in Georgia's SIP and that corrects the other deficiencies identified above, and (3) prior to issuing any permit, provide the public with the requisite information needed to assess the permit's adequacy and offer a new opportunity for written and oral comments in accordance with Title V and PSD requirements.

Respectfully submitted,

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