GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

Jeffrey W. Cown, Director

Air Protection Branch
4244 International Parkway
Suite 120
Atlanta, Georgia 30354
404-363-7000

NARRATIVE

TO: Cynthia Dorrough

FROM: Alexander Lagunas

DATE: January 27, 2025

Facility Name:	DB Data Center Boulder Park, LLC
AIRS No.:	121-00984
Location:	Atlanta, GA (Fulton County)
Application #:	29558
Date of Application:	January 8, 2025

Background Information

DB Data Center Boulder Park, LLC (hereafter the facility) is a greenfield data center project to be located at 4762 Bakers Ferry Rd. SW, Atlanta, Georgia (Fulton County). The facility will be a data center with 74 diesel-fired emergency generators that will provide electricity to the data center during an emergency (i.e., when power from the electric grid to the data center is interrupted). The facility will consist of two buildings (ATL5 and ATL6).

DataBank, the parent company, also owns Data Center Fulton, LLC (121-00973), which operates under Air Permit No. 7374-121-0973-S-01-0. Data Center Fulton, LLC is located at 200 Selig Drive SW, Atlanta, Georgia, which is near the facility. The two facilities are not located on contiguous or adjacent properties, will not share resources or personnel, and will operate completely independent of each other. As a result, each is a separate facility with respect to Title V.

The facility is currently an unpermitted greenfield project and will be located in Fulton County, which is in attainment for all criteria pollutants. The facility will be a synthetic minor with respect to Title V.

Purpose of Application

DB Data Center Boulder Park, LLC submitted Application No. 29558, received January 14, 2025, for the construction and operation of 74 diesel-fired emergency generators located at a data center in Atlanta, Georgia. The facility will be a synthetic minor with respect to Title V based on an emissions limit of 99.9 tons per year (tpy) of NO_X emissions. The facility will monitor and record the hours of operation and load of each generator in emergency and non-emergency service to calculate its monthly NO_X emissions and then its 12-month consecutive NO_X emissions. As a result, all other emissions are below the major source threshold of 100 tons per year as well.

The facility entered the Expedited Permitting Program on January 23, 2025. The Public Advisory period ended on February 21, 2025 and there were no comments.

Updated Equipment List

Emission Units			Associated Control Devices	
Source Group Code	**Source Code ID and Description**	**Installation Date**	**Source Code**	**Description**
Group 1	70 Diesel-Fired Emergency Generators Model A GEN-A1, GEN-A2, GEN-A3, GEN-B1, GEN-B2, GEN-B3, GEN-C1, GEN-C2, GEN-C3, GEN-D1, GEN-D2, GEN-D3, GEN-E1, GEN-E2, GEN-E3, GEN-F1, GEN-F2, GEN-F3, GEN-G1, GEN-G2, GEN-G3, GEN-H1, GEN-H2, GEN-H3, GEN-I1, GEN-I2, GEN-I3, GEN-J1, GEN-J2, GEN-J3, GEN-K1, GEN-K2, GEN-K3, GEN-L1, GEN-L2, GEN-L3, GEN-M1, GEN-M2, GEN-M3, GEN-N1, GEN-N2, GEN-N3 GEN-O1, GEN-O2, GEN-O3, GEN-P1, GEN-P2, GEN-P3, GEN-Q1, GEN-Q2, GEN-Q3, GEN-R1, GEN-R2, GEN-R3, GEN-S1, GEN-S2, GEN-T1, GEN-T2, GEN-U1, GEN-U2, GEN-V1, GEN-V2, GEN-W1, GEN-W2, GEN-X1, GEN-X2, GEN-Y1, GEN-Y2, GEN-Z1, & GEN, Z2	2025*	--	--
Group 2	Four (4) Diesel-fired Emergency Generators Model B GEN-A4, GEN-B4, GEN-C4, & GEN-D4	2025*	--	--

*proposed within current application

Storage Tanks

Source Group Code	Contents	Installation Date
DT1	70 Diesel Belly Tanks of Group 1	2025
DT2	4 Diesel Belly Tanks of Group 2	2025

*proposed within current application

Emissions Summary

Facility-Wide Emissions
(in tons per year)

Pollutant	Potential Emissions			Actual Emissions		
	Before Mod.	After Mod.	Emissions Change	Before Mod.	After Mod.	Emissions Change
$PM/PM_{10}/PM_{2.5}$	--	5.37	+5.37	--	--	--
NOx	--	99.9	+99.9	--	--	--
SO_2	--	0.14	+0.14	--	--	--
CO	--	67.01	+67.01	--	--	--
VOC	--	4.72	+4.72	--	--	--
Max. Individual HAP	--	0.07	+0.07	--	--	--
Total HAP	--	0.15	+0.15	--	--	--
Total GHG (if applicable)	--	15,318	+15,318	--	--	--

The facility has proposed a limitation of 99.9 tons per year (tpy) of NO_X emissions to be considered a synthetic minor source with respect to Title V. With this proposed limitation, all other criteria pollutants and HAP emissions will be below their respective major source thresholds.

Because the generators may operate at different loads, the facility calculated PTE by determining the ratio of NO_X hourly emission (in lb/hr) to other pollutant emission rates (in lb/hr) from a range of loads (10% to 100%) for both emergency generator models. The 99.9 tpy limit was multiplied by the highest lb/lb ratio across Group 1 and Group 2 generators and all loads to determine PTE of each pollutant other than NOx.

Regulatory Applicability

40 CFR 60 Subpart IIII – "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines"

Applicable to the emergency generators (Source Codes: Group 1 & Group 2).

This subpart applies to stationary compression ignition (CI) internal combustion engines (ICE) that commenced construction after April 1, 2006. The emergency generators are CI ICE constructed after April 1, 2006 and thus are subject to this subpart.

The emergency generators are subject to the following:

- Emission standards:
  - $NMHC+NO_X$, CO, and PM
  - Visible emissions during acceleration and lugging mode
  - Fuel content, including sulfur, cetane, and aromantic content
- Operational requirements
  - Operate and maintain according to the manufacturer's specification/instructions

    - Criteria to meet the definition of an emergency generator under this subpart
- Monitoring requirements
    - Non-resettable hour meter
- Performance Testing
    - Maintenance plan and performance testing if not operating according to the manufacturer's instructions
- Recordkeeping
    - Record of hours of operation in emergency and non-emergency service
    - Record of non-emergency hours of operation on a 12-month rolling total
    - Record of manufacturer's instructions or maintenance plan
    - Compliance with emissions standards by purchasing, installing, and configuring according to manufacturer's instructions
    - Annual report if operating as specified in 40 CFR 60.4211(f)(3)(i)

40 CFR 60 Subpart ZZZZ – "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines"

Applicable to the emergency generators (Source Codes: Group 1 & Group 2).

This subpart applies to any stationary reciprocating internal combustion engine (RICE) located at a major or area source of HAP emissions.

The emergency generators are located at an area source of HAP emissions and thus are subject to this subpart. The emergency generators are considered *new* because they were constructed after June 12, 2006 and located at an area source of HAP emissions. *New* RICE located at an area source meet the requirements of this subpart by meeting the requirements of 40 CFR 60 Subpart IIII. The emergency generators are subject to 40 CFR 60 Subpart IIII and thus no further requirements apply.

Georgia Rule 391-3-1-.02(2)(b) – "Visible Emissions"

Applicable to the emergency generators (Source Codes: Group 1 & Group 2).

This rule applies to emission sources that are also subject to other emission limitations under the Georgia Rules. The emergency generators are also subject to Rules (g) and (mmm) and thus subject to this rule.

Georgia Rule 391-3-1-.02(2)(g) – "Sulfur Dioxide"

Applicable to the emergency generators (Source Codes: Group 1 & Group 2).

The emergency generators fire diesel fuel and thus are subject to this rule. The generators are subject to a sulfur content limitation of 2.5 percent sulfur by weight; however, the limitation imposed by 40 CFR 60 Subpart IIII of 15 ppm is more restrictive.

Georgia Rule 391-3-1-.02(2)(yy) – "Emission of Nitrogen Oxides from Major Sources"

Not applicable.

This rule applies to facilities with potential emissions in excess of 25 tpy in a listed county.

The emergency generators have potential emissions of NO_X in excess of 25 tpy in Fulton County, one of the listed counties; however, the requirements of this rule do not apply to individual equipment subject to Rule (mmm). The emergency generators are subject to Rule (mmm) and thus the requirements of this rule do not apply.

Georgia Rule 391-3-1-.02(2)(mmm) – "NO_X Emissions from Stationary Gas Turbines and Stationary Engines"

Applicable to the emergency generators (Source Codes: Group 1 & Group 2).

This rule applies to stationary engines used to generate electricity with a capacity greater than 100 kW and less than or equal to 25 MW in a listed county.

The emergency generators are stationary engines used to generate electricity with a capacity between 100 kW and 25 MW and located in Fulton County, one of the listed counties, and thus are subject to this rule. Engines located at data centers are not subject to the emission limitations of this rule if they meet the criteria found in 391-3-1-.02(2)(mmm)8.

Permit Conditions

Condition 2.1 sets a limit of 99.9 tpy of NO_X emissions, as proposed by the facility, to avoid being subject to the requirements of Part 70 (Title V).

Condition 2.2 establishes the applicability of 40 CFR 60 Subpart A and 40 CFR 60 Subpart IIII to the emergency generators (Source Codes: Group 1 & Group 2).

Condition 2.3 sets the NMHC+NO_X, CO, and PM limits to the emergency generators (Source Codes: Group 1 & Group 2), per 40 CFR 60 Subpart IIII.

Condition 2.4 sets the visible emissions limit during acceleration and lugging mode to the emergency generators (Source Codes: Group 1 & Group 2), per 40 CFR 60 Subpart IIII.

Condition 2.5 sets fuel content limits to the diesel fuel fired in the emergency generators (Source Codes: Group 1 & Group 2), per 40 CFR 60 Subpart IIII and subsuming Georgia Rule (g).

Condition 2.6 lists the criteria for the emergency generators (Source Codes: Group 1 & Group 2) to be considered *emergency generators* under 40 CFR 60 Subpart IIII.

Condition 2.7 establishes the applicability of 40 CFR 63 Subpart A and 40 CFR 63 Subpart ZZZZ to the emergency generators (Source Codes: Group 1 & Group 2).

Condition 2.8 sets the visible emissions limit per Georgia Rule (b).

Condition 2.9 sets the criteria for the emergency generators (Source Codes: Group 1 & Group 2) as generators at a data center, per Georgia Rule (mmm).

Condition 2.10 defines the distillate fuel that can be fired in the emergency generators.

Condition 4.1 requires the operation and maintenance of the emergency generators (Source Codes: Group 1 & Group 2) according to the manufacturer's instructions, per 40 CFR 60 Subpart IIII.

Condition 5.1 requires the following monitoring devices

- Non-resettable hour meter, per 40 CFR 60 Subpart IIII
- System to monitor the generator output load, in order to calculate NO_X emissions

Condition 5.2 requires verification that the fuel oil meets standards outlined in Permit Condition 2.10.

Condition 6.2 requires a maintenance plan if the emergency generators (Source Codes: Group 1 & Group 2) are not operated or maintained according to manufacturer's instructions, per 40 CFR 60 Subpart IIII.

Condition 7.2 requires calculation of monthly NO_X emissions from each emergency generators (Source Codes: Group 1 & Group 2) and the total monthly NO_X emissions using records from Condition 5.1.

Condition 7.3 requires the calculation of the 12-month consecutive NO_X emission total using records from Condition 7.2 to demonstrate compliance with Condition 2.1.

Condition 7.4 requires records of the monthly emergency and non-emergency service of the emergency generators (Source Codes: Group 1 & Group 2), per 40 CFR 60 Subpart IIII.

Condition 7.5 requires records of the 12-month rolling total of non-emergency service of the emergency generators (Source Codes: Group 1 & Group 2) using the records in Condition 7.4, per 40 CFR 60 Subpart IIII.

Condition 7.6 requires a copy of the manufacturer's instructions or maintenance plan, per 40 CFR 60 Subpart IIII.

Condition 7.7 requires the purchase of a certified engine to demonstrate compliance, per 40 CFR 60 Subpart IIII.

Condition 7.8 requires submittal of an annual record if the emergency generators (Source Codes: Group 1 & Group 2) are used as specified in 40 CFR 60.4211(f)(3)(i).

Condition 7.9 requires records of diesel fuel shipments.

Toxic Impact Assessment (TIA)

Initial Minimum Emission Rate (MER) Evaluation

In the first step of the TIA, the facility compared the facility-wide potential emissions of each Toxic Air Pollutant (TAP) with its corresponding MER. The facility identified benzene as a TAP of interest because its potential emissions were greater than the minimum emission rate (MER) established by the guidelines. The results of this MER comparison are shown in the table below.

Pollutant	Facility-Wide Potential Emissions	MER	TIA required?
	lb/yr	lb/yr	
Benzene	**145.3**	**31.63**	**Yes**
Toluene	52.62	1,216,650	No
Xylenes	36.14	24,333	No
Formaldehyde	14.77	22.1	No
Acetaldehyde	4.72	1,107	No
Acrolein	1.48	4.87	No
Naphthalene	24.34	729.99	No

SCREEN3 Modeling

The facility conducted air dispersion modeling using SCREEN3 to determine the maximum ground level concentration (MGLC) of benzene. Benzene has both a short-term (15-minute) and a long-term (annual) acceptable ambient concentrations (AACs).

The short-term emission rate was identified as the maximum potential hourly benzene emission rate while the long-term emission rate was identified as the benzene emissions coinciding with the emission of 99.9 tpy NO_X emissions distributed through 8760 hours per year. The facility modeled an emission rate for benzene of 1 g/s for one emergency generator from each group and identified the maximum concentration by scaling the impact.

1-Hour Impacts

The maximum 1-hour short-term impact ($\mu g/m^3$) for each generator group was calculated as the product of [the maximum 1-hr modeled concentration at 1 gram per second emission rate ($\mu g/m^3$)/(g/s)] * [the short-term emission rate (g/s)/(gen)] * [the number of generators in each group (gen)]. The maximum 1-hour short-term impact calculation conservatively assumes all generators operate simultaneously at the worst-case generator location for each group (closest to the fence line); therefore, the maximum 1-hour short-term impact from Group 1 and Group 2 were summed to give the total maximum 1-hour short-term impact of 134.41 $\mu g/m^3$. This modeled impact is conservative since not all generators are as close to the fence line as the worst-case generator.

The maximum 1-hour long-term impact ($\mu g/m^3$) for each generator group was determined as the product of [the maximum 1-hr modeled concentration at 1 gram per second emission rate ($\mu g/m^3$)/(g/s)] * [the long-term emission rate (g/s)/(gen)] * [the number of generators in each group (gen)]. The maximum 1-hour long-term impact calculation conservatively assumes all long-term emissions are emitted from the worst-case generator in each group. Since the maximum 1-hour long-term impact for each group assumes 99.9

tpy NOx, the actual maximum 1-hour long-term impact will be somewhere between Group 1 impacts (1.34 $\mu g/m^3$) and Group 2 impacts (1.39 $\mu g/m^3$), depending on which generators are used. To be conservative, the higher maximum 1-hour long-term impact (1.39 $\mu g/m^3$) was used.

These calculations are summarized in the table below.

Group	Number	Max. 1-hr Modeled Concentration at 1 gram/sec Emission Rate	Short Term Emission Rate	Long Term Emission Rate	Maximum 1-hour Short-Term Impact	Maximum 1-hour Long-Term Impact
	#	($\mu g/m^3$)/ (g/sec)	g/s per gen	g/s per gen	$\mu g/m^3$	$\mu g/m^3$
1	70	666	2.79e-3	2.98e-5	130.01	**1.39**
2	4	796	1.38e-3	4.2e-4	4.40	1.34
				Total	**134.41**	

15-Minute and Annual Impacts

To convert the total maximum 1-hour short-term impact to maximum 15-minute impact, the total maximum 1-hour short-term impact (134.41 $\mu g/m^3$) was multiplied by 1.32, resulting in a value of 177.42 $\mu g/m^3$. To convert the higher maximum 1-hour long-term impact to maximum annual impact, the higher maximum 1-hour long-term impact (1.39 $\mu g/m^3$) was multiplied by 0.08 resulting in a value of 0.11 $\mu g/m^3$. The table below summarizes the results of the 15-minute and annual SCREEN3 modeling. The modeled concentrations are below both the 15-minute and annual AACs, therefore no further analysis was conducted.

Pollutant	Maximum 15-Minute Modeled Impact	15-Minute AAC	Exceeds AAC?	Maximum Annual Modeled Impact	Annual AAC	Exceeds AAC?
	$\mu g/m^3$	$\mu g/m^3$		$\mu g/m^3$	$\mu g/m^3$	
Benzene	177.42	1,600	No	0.11	0.13	No

Summary & Recommendations

I recommend that Permit No. 7374-121-0984-S-01-0 be issued to DB Data Center Boulder Park, LLC for the construction and operation of diesel-fired emergency generators at a data center, located in Atlanta, Fulton County, Georgia. The facility will be a synthetic minor with respect to Title V by limiting the emissions of NO_X to 99.9 tpy. The facility is required to monitor and record hours of operation and load for each emergency generator to demonstrate compliance. The Public Advisory period expired on February 21, 2025, comments were received by the Division from Sierra Club and included in Appendix A.

Addendum to Narrative

The 30-day public review started on March 4, 2025 and ended on April 4, 2025. Comments were received by the Division.

Sierra Club Comments, Part One

Comments were received from the Sierra Club on behalf of itself and its nearly 9,000 Georgia members. The first letter was received on February 21, 2025, and signed by Dori Jaffe, Managing Director. The narrative erroneously stated that no comments were received during the Public Advisory period.

Please refer to Appendix A to view the entire comments. EPD will only address the comments relevant to the draft permit and application below.

Comment 1: The Application, if approved, will allow local air quality to be degraded.

EPD Response to Comment 1:

The Division regulates toxic air pollutant (TAP) emissions to protect public health under the provisions of Georgia Air Quality Rule 391-3-1-.02(2)(a)3(ii). Procedures governing the Division's review of TAP emissions as part of air permit reviews are contained in EPD's *Guideline for Ambient Impact Assessment of Toxic Air Pollutant Emissions*. The facility performed a Toxic Impact Analysis (TIA) assessment, and the results were below the acceptable ambient concentrations (AACs); therefore, there is no concern with TAP emissions from the project.

The Division issues an enforceable permit that adheres to the requirements of the Clean Air Act, federal regulations, and Georgia air quality regulations to assure that the facility will maintain its emissions to the standards required by federal and state regulations, and which will protect public health and the environment.

Comment 2: Batteries are a better, cleaner alternative that should be considered before the Application is granted.

EPD Response to Comment 2:

The Division is responsible for protecting Georgia's air quality through the regulation of emissions from industrial and mobile sources according to state and federal regulations. The Division cannot dictate to the facility how to design or build the facility.

The Division believes that batteries alone are not yet a viable replacement for diesel generators. The facility must have an adequate footprint to install a battery. Batteries that remain fully charged waiting for an extended outage will result in accelerated degradation over time. It is complex and costly to maintain the grid infrastructure needed to charge these batteries after an extended outage while simultaneously powering a data center.

Comment 3: In the alternative, the Applicant should be required to use diesel generators with the most stringent emissions controls technology.

EPD Response to Comment 3:

The Division is responsible for protecting Georgia's air quality through the regulation of emissions from industrial and mobile sources according to state and federal regulations. For this permit application, the use of diesel generators with the most stringent emissions control technology is not required by any state or federal regulations, nor is it necessary to protect public health.

Comment 4: The Application should be considered in the larger context of Georgia's growing number of data centers.

The Division is aware of and monitoring the new developments in the MSA area. The Division required the performance of a TIA assessment of the project TAP emissions from the source. The applicant performed the TIA assessment and the results were below the AACs. The TIA analysis does not require a cumulative impact analysis. The Division issues enforceable air permits that adhere to the requirements of the Clean Air Act, federal regulations, and Georgia air quality regulations to assure that the facility will maintain its emissions to the standards required by federal and state regulations, and which will protect public health and the environment.

Sierra Club Comments, Part Two:

Comments were received from the Sierra Club on behalf of itself and its nearly 9,000 Georgia members. The second letter was received during the Draft Permit Public Notice on April 4th, 2025, and was signed by Dori Jaffe, Managing Attorney.

Comment 1: The Draft Permit Amendment fails to acknowledge or consider public comments.

The Division experienced an email issue resulting in non-receipt of the letter dated February 21, 2025, that was sent at the end of the application public advisory period ending February 21, 2025, and thus the comments were erroneously noted as no comments received during the public advisory period in the narrative.

Comments from the public were also received during the draft public notice period ending April 4, 2025. The Division is obligated to consider all public comments, and responses to the comments are addressed in the narrative addendum at the end of the public notice period. The Division addressed the Sierra Club comments submitted on the application during the public advisory period in Part One above.

Comment 2: The Draft Permit will allow local air quality to be degraded.

This is similar to Comment 1 presented in the February 21, 2025 letter. See the response above.

Comment 3: Batteries are a better, cleaner alternative that should be considered before a Final Permit is issued.

This is similar to Comment 2 presented in the February 21, 2025 letter. See the response above.

Comment 4: In the alternative, the Final Permit should require DataBank to use diesel generators with the most stringent emission controls technology.

This is similar to Comment 3 presented in the February 21, 2025 letter. See the response above.

Comment 5: The Draft Permit should be considered in the larger context of Georgia's growing number of data centers.

This is similar to Comment 4 presented in the February 21, 2025 letter. See the response above.

King & Spalding, on behalf of DB Data Center Boulder Park, LLC

Comments were received from King & Spalding, on behalf of its client DB Data Center Boulder Park, LLC. The letter was received on April 4, 2025 and signed by Les Oakes.

Comment 1:

I am writing on behalf of our client, DB Data Center Boulder Park, LLC ("Data Center"), concerning the above referenced draft air quality permit. My client previously filed comments on the draft permit through its environmental consultant, Dr. Josie Bates of Ramboll. Those prior comments (attached by email) focused on the Air Protection Branch's recent decision, contrary to prior discussions or practice, to require Data Center to comply with Rule 391-3-1-.02(2)(mmm)8 rather than Rule 391-3-1-.02(2)(mmm)7. The comment period for this draft permit closes on April 4, 2025. Accordingly, these comments are timely filed…

The comment in its entirety is included in Appendix A.

EPD Response:

Upon review, the Division has decided the facility can satisfy the requirements of 391-3-1-.02(2)(mmm) through the application of 391-3-1-.02(2)(mmm)7 rather than through the application of 391-3-1-.02(2)(mmm)8. As a result, Condition 2.9 has been modified. Removed language has been struck through, and new language has been boldened, as shown below.

~~2.9 The Permittee shall limit the operation of the emergency generators (Source Codes: Group 1 & Group 2) to the following criteria:~~
~~[391-3-1-.02(2)(mmm)8]~~

~~a. Operate only for routine testing and maintenance, when electric power from the local utility is not available, or during internal system failures;~~

~~b. Total annual operation for the emergency generator is less than 500 hours per year,~~

~~c. Operation for routine testing and maintenance during the months of May through September occurs only between 10 p.m. to 4 a.m. Operation for routine testing and maintenance during the months of January through April and October through December may be done during any time of the day, and~~

~~d. The facility maintains records of all operation, including the reason for the operation.~~

~~For each emergency generator that cannot meet the definition of "Emergency standby stationary engine" found in Georgia Rule 391-3-1-.02(2)(mmm)8 for data centers, the Permittee shall not discharge, or cause the discharge, into the atmosphere, from each engine, any gases which contain nitrogen oxides (NOX) in excess of 80 ppm at 15% oxygen, dry basis, during the ozone season. For purposes of this permit, the ozone season is defined as the time period beginning May 1 and ending September 30.~~

2.9 The Permittee must operate the emergency generators (Source Codes: Group 1 & Group 2) only when electric power from the local utility is not available and for less than 200 hours per year.
[391-3-1-.02(2)(mmm)7]

For each emergency generator that cannot meet the definition of "Emergency standby stationary engine" found in Georgia Rule 391-3-1-.02(2)(mmm)4, the Permittee shall not discharge, or cause the discharge, into the atmosphere, from each engine, any gases which contain nitrogen oxides (NOx) in excess of 80 ppm at 15% oxygen, dry basis, during the ozone season. For purposes of this permit, the ozone season is defined as the time period beginning May 1 and ending September 30.

The corresponding comment in the narrative is as follows:

Condition 2.9 sets the criteria for the emergency generators (Source Codes: Group 1 & Group 2) as **emergency standby stationary engines** ~~generators at a data center~~, per Georgia Rule (mmm).

APPENDIX A

WRITTEN COMMENTS RECEIVED DURING COMMENT PERIOD

February 21, 2025

BY ELECTRONIC FILING
epd.comments@dnr.ga.gov

Georgia Dept Natural Resources
Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120,
Atlanta, Georgia 30354

Re: **SIP Air Permit Application - DataBank Data Center Boulder Park**

On behalf of its nearly 9,000 Georgia members, the Sierra Club submits these comments on DataBank's SIP Air Permit Application for construction of a data center located in Atlanta, Georgia. The Application is requesting to build 74 backup diesel generators to be used during power outages. These diesel generators will endanger the state and county's air quality and particularly affect the children who attend the 30+ schools located within five miles of the DataBank data center. Battery backups are a better alternative that would prevent DataBank from experiencing any interruption in service and prevent significant impacts to air quality and thus public health. In the alternative, DataBank should be required to install backup diesel generators with more stringent emissions control technology such as Tier IV or Tier II+SCR. EPD should also consider the cumulative impacts that DataBank's generators will have on an area that already contains over 15 proposed or constructed data centers and hundreds of diesel generators, all less than five miles away. The issues addressed below are based on publicly available materials, including DataBank's application, and online materials cited within this comment letter.

DATABANK'S APPLICATION

DataBank submitted an air permit application in January 2025 to construct a data center in Atlanta, within Fulton County, Georgia. If granted, the Application will allow DataBank to install 74 Tier 2 diesel generators[1].

[1] DATABANK CENTER BOULDER PARK, LLC, *SIP Permit Application* (January 2025) at PDF 10, 15 ("Application").

Georgia Air Quality Rule 391-3-1-.03(10)(b)1(i) establishes the Clean Air Act major source threshold for each criteria pollutant as 100 tons per year. DataBank contends that its data center will stay below the threshold as a synthetic minor source, with a NOx limit of 99.9 tons per year.[2] It does not specify a total operating hour limit beyond a general 200 hours/year/generator limit.[3] DataBank's proposed NOx limit is just barely under the major source threshold and allows no room for error. Before issuing a permit, EPD should adopt the recommendations suggested in this comment letter.

Comment No. 1: The Application, if approved, will allow local air quality to be degraded.

If finalized, the Application will allow DataBank to install 74 Tier 2 diesel generators, raising concerns about local air quality and public health. Diesel generators generate many harmful pollutants,[4] including "greenhouse gases, particulate matter (PM), volatile organic compounds (VOCs), nitrous oxides (NOx), and sulfur dioxide (SO_2)."[5] Compared to power plants, backup generators "can emit several times more pollution from each unit of fuel burned and unit of electricity delivered."[6] This is precisely why, to protect public health, the developed world relies primarily on large, utility-scale generation rather than distributed fossil generation.

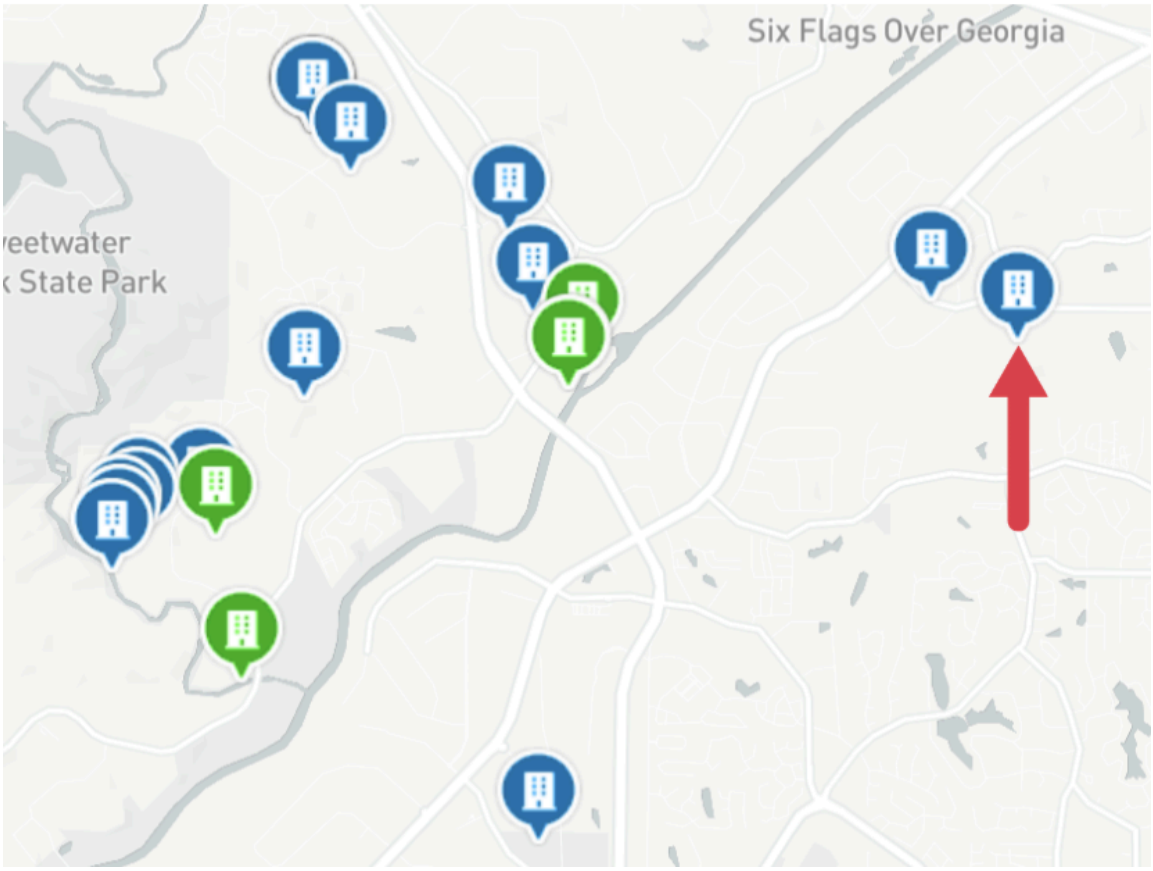
Not only will DataBank's diesel generators emit more pollutants per unit of fuel than utility scale generation, such pollutants can also have acute localized effects. Diesel generator pollutants "can create smog and exacerbate respiratory conditions, like asthma, chronic obstructive pulmonary disease, and lung cancer, especially for children and older adults."[7] These localized problems occur because, unlike large generation sources, these generators do not have a tall smokestack to disperse the pollutants far above the air that residents breathe or other pollution control equipment that utility-scale facilities must have. This is particularly problematic because "[d]iesel generators tend to be located close to where people live, work, and attend school."[8] This is true of DataBank's data center, which is located within five miles of 30+ schools.[9]

---

[2] *Id.* at PDF 10.
[3] *Id.*
[4] Neil D. Strachan & Alexander E. Farrell, *Emissions from Distributed Generation*, CARNEGIE MELLON ELEC. INDUS. CENTER (2004), available at https://bit.ly/3ZVVq8N ("Uncontrolled diesel engines, such as those from emergency backup generators are not evaluated because previous research has already shown their emissions are very high and regulations typically preclude their use as baseload generation." *Id* at 3 (Emphasis original)).
[5] M.CUBED. *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California* (2021), available at https://bit.ly/3LENog4.
[6] INT'L FIN. CORP. *The Dirty Footprint of the Broken Grid* (Sept. 2019), available at https://www.ifc.org/content/dam/ifc/doc/mgrt/20190919-full-report-the-dirty-footprint-of-the-broken-grid.pdf at 23 (PDF 33).
[7] *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California*, *supra* note 6.
[8] *Id.*
[9] According to Google Maps, DataBank's proposed datacenter is within 2 miles of Appleton School-Early Learning, Miles Intermediate Elementary School, and Adamsville Elementary School; within 3 miles of The Spanish Preschool, Kids 'R' Kids Learning Academy of Cascade, Premier Learning Academy, Harper-Archer Elementary School, Benjamin E. Mays High School; within 4 miles of Angels Academy of Atlanta, The SAE School, Usher-Collier Elementary School, West Manor Elementary School, Peyton Forest Elementary School, Fickett Elementary School, Jean Childs Young Middle School, Atlanta SMART Academy, Ralph J. Bunche Middle School,

In addition, there are currently at least 15 proposed or constructed data centers within five miles of the proposed DataBank center, as shown below. This Application will add another 74 Tier 2 diesel generators to the hundreds already permitted, making localized health effects particularly acute for those who live, work, or go to school in the area.

Figure 1: Data Centers Near DataBank Boulder Park[10]



The DataBank Boulder Park data center is located in Fulton County, near communities in the 83rd percentile for low income.[11] Thus, these localized emissions are more likely to affect those of lesser means than data centers in more affluent areas.[12]

Sandtown Middle School, Imagine International Academy, and within 5 miles of CHI Montessori Academy, Sesame Seed Academy Inc, Atlanta Trilingual Academy, World Knowledge Preschool, Beecher Hills Elementary School, Kimberly Elementary School, Berean Christian Junior Academy, The B.E.S.T. Academy at The Thomas W. Dortch Jr. Institute, Daniel, McLaughlin Therrell High School, Westlake High School, Frederick Douglass High School.

[10] DATA CENTER MAP, Georgia Data Centers (2025), available at: https://www.datacentermap.com/usa/georgia/. Red arrow points to the DataBank Boulder Park facility.

[11] ENVIRONMENTAL DATA AND GOVERNANCE INSTITUTE, Climate and Economic Justice Screening Tool, available at: https://edgi-govdata-archiving.github.io/j40-cejst-2/en/

[12] Impoverished individuals are already more likely to have health problems and are also less able to gain access to healthcare should they become sick from localized air pollution. *See* Poverty, U.S. DEP'T OF HEALTH AND HUMAN SERVICES, available at: https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/poverty.

Georgians need only look to California to see potential impacts to communities by allowing extended generator use. There, increasing wildfire-related outages have led many businesses and residents to rely more heavily on diesel backup.[13] Two districts in California have the generator capacity to power about 15% of California's grid. New research shows that this proliferation in diesel generators will cause $136 million in annual health costs, "due to increases in mortalities, heart attacks, hospital visits and other adverse consequences."[14] These emissions will also occur during power outages, when low-income individuals are already vulnerable. For instance, during a power outage in the summer, low-income individuals who live near DataBank's Boulder Park data center will be without air conditioning *and* will be faced with a decision of whether to open their windows and be exposed to unnecessarily high emissions from the 15+ data centers and hundreds of diesel generators within five miles or keep their windows shut and bear the brunt of the heat.

We urge EPD to consider the broader cumulative impacts of approving this Application, particularly in an area already burdened with air quality issues and vulnerable populations. We recommend that a more comprehensive health risk assessment be conducted, with special attention to how the proposed generators will impact local communities.

Comment No. 2: Batteries are a better, cleaner alternative that should be considered before the Application is granted.

DataBank does not need to use diesel generators as much, if at all, to ensure no interruption in service. Because DataBank's application admitted that the company does not intend to run its generators but for a short period of time while service is interrupted, battery backups combined with renewable energy is a better, cleaner alternative for DataBank while protecting the community's air quality.

Renewable energy and battery storage is an investment, but it will pay for itself over time. And that payback period could be shortened considerably when the alternative is considered: running diesel generators that have costly and often volatile fuel prices.[15] Battery storage would provide the same dispatchable firm capacity value as a diesel generator, and batteries are readily available and cost-competitive today. Some data centers have been able to use renewable energy and battery storage to operate data centers without grid power usage and without interruptions in

[13] BUSINESSWIRE, *New Study Shows a Rapid Increase of Diesel-Fueled Backup Generators Across California* (Oct. 6, 2021), available at https://bwnews.pr/3yVGc7L.
[14] *Id.*
[15] Chris Isidore & Christopher Hickey, *Gas Prices Had a Wild Ride This Year, Making 2023 Tough to Predict*, CNN BUSINESS (Dec. 29, 2022), available at https://cnn.it/3yWlpRE.

power supply.[16] Others, like Google, are using battery-based systems to replace their back-up diesel generators.[17]

From the information available in the Application, it does not appear that battery backup or renewable energy was even considered as a viable alternative, but it should be before allowing diesel-fueled generators. For those reasons, we ask that EPD perform an alternative analysis that would study the feasibility of replacing DataBank's diesel generators with batteries and/or on-site renewable energy and how that would impact emission limits.

Comment No. 3: In the alternative, the Applicant should be required to use diesel generators with the most stringent emissions control technology.

In the Application, DataBank proposes to purchase diesel generators that comply only with EPA's Tier 2 emissions standards.[18] Tier 2 emissions standards come up short on protecting public health, especially for a project located within five miles of 30 schools, in an area with at least 15 proposed or constructed data centers. Indeed, Tier 2 technology allows for massive amounts of NOx emissions, while other technologies –like Tier 4 or Tier 2 with selective catalytic reduction (SCR)– have more efficient controls that reduce emissions. SCR involves injecting ammonia into exhaust gas where it reacts with NOx to form nitrogen and water, decreasing NOx emissions substantially,[19] while Tier 4 is a more stringent EPA standard introduced in 2004 for non-road diesel engines that reduces emissions limits for various air pollutants like NOx and particulate matter.[20] As shown in the table below, Tier 2 diesel generators emit ten times more NOx pollution than Tier 4 generators or Tier 2 with SCR.

[16] EATON, *Eaton Provides Webaxys' New Eco-Designed Data Center With a Complete Energy Storage & Management System* (Nov. 2016), available at https://eaton.works/3JThlqz.
[17] GOOGLE, *24/7 Carbon-Free Energy: Powering up new clean energy projects across the globe* (Apr. 21, 2022), available at https://bit.ly/407WUwW.
[18] *SIP Permit Application*, supra note 1 at 3, PDF 6.
[19] Aaron Larson, Understanding Selective Catalytic Reduction Systems and SCR Design Considerations, POWER MAGAZINE (Nov. 1, 2023), available at: https://www.powermag.com/understanding-selective-catalytic-reduction-systems-and-scr-design-considerations/.
[20] 68 Fed. Reg. 38958 (June 29, 2024).

Table 1: Engine Technology Hierarchy[21]

Table 1: Engine Technology Hierarchy				
Type	Classification		Maximum Operating Service	NO_x Emissions
	State	**Federal**		
DIESEL ENGINES				
Tier II	Emergency	Emergency	Limit all operation to less than major source levels	18.0 lb/MW
Tier II + SCR*	Non-emergency	Emergency	Limit all operation to less than major source levels	1.8 lb/MW
Tier IV	Non-emergency	Non-emergency	Limit all operation to less than major source levels	1.8 lb/MW
NATURAL GAS ENGINES				
EPA Compliant	Emergency	Emergency	Limit all operation to less than major source levels	6.0 lb/MW
EPA Compliant	Non-emergency	Non-emergency	Limit all operation to less than major source levels	3.0 lb/MW
EPA + Controlled	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-1.5 lb/MW
NATURAL GAS SIMPLE CYCLE COMBUSTION TURBINES				
Low-NOx	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-0.5 lb/MW
Low-NOx with SCR	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.1 lb/MW
**Where SCR = Selective Catalytic Reduction system = an active air pollution control system that reduces NOx emissions; a Tier II engine equipped with an add-on SCR is sometimes referred to as a "Tier IV equivalent" engine*				

As mentioned in Comment 2 above, Georgia EPD can protect air quality for Georgians by requiring data centers to install battery storage and renewables as their backup generation instead of diesel generators. But, to the extent they cannot secure all of their backup capacity through renewables, EPD should require that DataBank incorporate Tier 4 generators or Tier 2 generators with SCR which would reduce harmful emissions and better protect the public.

Indeed, Virginia, the state with the largest number of data centers in the world,[22] recently released a guidance document recommending that data centers incorporate "controlled" generators (Tier 2 with SCR or Tier 4 emissions controls) into their backup generator mix.[23] For data centers with a

[21] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Data Center Air Permit Guidelines (Jan. 17, 2025), available at: https://www.deq.virginia.gov/home/showpublisheddocument/27424 at 2.
[22] JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION, Data Centers in Virginia (2023), available at: https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp#:~:text=Northern%20Virginia%20is%20the%20largest,of%20capacity%20in%20the%20Americas.
[23] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Data Center Air Permit Guidelines (Jan. 17, 2025), available at: https://www.deq.virginia.gov/home/showpublisheddocument/27424 at 3.

large number of backup generators, they suggested that "100% controlled generators" may be required.[24]

At least one data center in Virginia has installed this technology. Microsoft Corporation's datacenter in Warrenton, VA includes thirteen diesel generators with SCR installed[25] and according to the permit, the SCR technology reduces NOx emissions from the generators by around 90%.[26]

Georgia needs to act now to ensure the anticipated wave of data center development does not lead to unnecessarily high emissions, which could have catastrophic impacts on communities and schools. With numerous data centers expected to be built in the near future, it is crucial to implement stringent emissions controls from the outset. By requiring the use of Tier 4 or Tier 2 with SCR technology, Georgia can protect public health and the environment while accommodating the growing demand for data centers. Adopting these technologies proactively will help mitigate the impact of increased emissions and set a strong precedent for future developments in the region. While Georgia EPD should first require emission-free technologies like battery storage, if DataBank cannot meet 100% of their backup power needs through batteries and renewable energy, then DataBank should be required to install either Tier 4 or Tier 2+SCR backup generators to better protect public health. With better technology available, there is no reason to permit greater emissions than necessary.

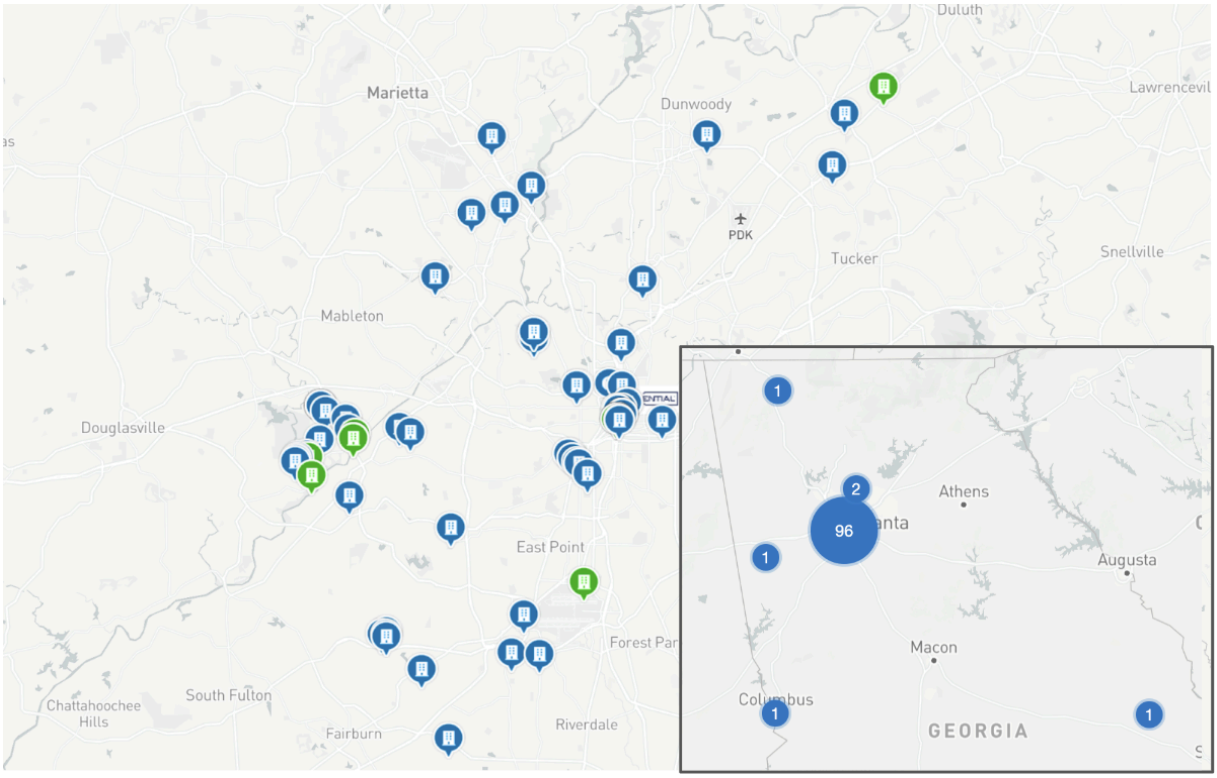
Comment No. 4: The Application should be considered in the larger context of Georgia's growing number of data centers.

The Application should not be considered in a vacuum. Rather, EPD should take a hard look into the number of data centers in Georgia. The number, particularly in the greater Atlanta area, is growing rapidly. As Figure 2 below shows, Georgia currently has at least 102 data centers, 96 of which are in Atlanta.

---

[24] *Id.*
[25] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Stationary Source Permit to Modify and Operate, Registration No.: 74201 (Feb. 8, 2023), available at: https://www.deq.virginia.gov/home/showpublisheddocument/25952/638633854222530000 at 4, PDF 6.
[26] Id. at 10, PDF 12.

Figure 2: Data Centers in Atlanta[27]



While the emissions limits in the Application may not seem high enough to affect the State's air quality, if every data center is allowed similar or higher emissions limits, the State's air quality would be in serious jeopardy. For example, if just 100 data centers in Atlanta were allowed 99.9 tons per year NOx emissions limits per year for their facilities, they would be allowed to emit 9,990 tons of NOx each year. EPD should at least do a cumulative impact analysis of the permitted emissions from all backup generators at all 96 data centers in the greater Atlanta area so the public can be better informed of the effects of the emissions from such facilities if they ran their generators at the maximum permitted levels during a power outage.

The data centers are also driving load growth, bringing more polluting generation online that degrades air quality. Georgia Power's 2023 IRP Update indicated that "large load projects correspond to the…influx of new businesses coming to Georgia [including] data centers… These projects' sizes far exceed historical annual norms, with some surpassing 1,000 MW".[28] To meet this growing demand, Georgia Power plans to build three combustion turbine plants (also called "gas peaker plants"), which will run on oil during peak times when gas is not available. In response to discovery during the 2023 IRP Update before the Georgia Public Service

[27] DATA CENTER MAP, Georgia Data Centers (2025), available at: https://www.datacentermap.com/usa/georgia/.
[28] GEORGIA POWER COMPANY, *2023 IRP Update* (Oct. 2023), available at: https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/2023-irp-update-main-document.pdf at 9 (PDF 13).

Commission, Georgia Power explained that the new gas peaker plants "will primarily run on fuel oil during peak winter and summer periods when the pipeline is constrained. No [firm transportation] or additional gas capacity is being proposed to support these units since these units can burn oil year around".[29]

More recently, Georgia Power submitted a load forecast update with the Georgia Public Service Commission showing that these numbers have increased yet again:

> As of September 30, 2024, the total pipeline of economic development projects through the mid-2030s has increased by 12,200 MW to 36,500 MW. Of this, 34,600 MW represent large load economic development projects (...) Looking towards the near-term winter of 2028/2029, just as the longer-term total economic development pipeline has grown, the large load pipeline has increased by 6,000 MW now totaling 19,900 MW.[30]

Finally, Georgia Power's 2025 IRP, filed in January, projects more than 2,200 MW of load growth over estimates in the 2023 IRP Update, driven in large part by data centers.[31] Due to this load growth, Georgia Power plans to continue operating the coal-burning Plants Scherer and Bowen, heavy producers of NOx emissions.[32]

EPD must take into consideration not only the diesel generators proliferating around Atlanta, but also air pollution from the three new gas peakers plants and the coal plants staying online. The peaker plants are less than 40 miles outside of Atlanta and run on oil during peak times, driving emission from NOx and other pollutants twice as high as if they were run on gas. Coal plants are also extreme NOx polluters. Plant Scherer emitted 7,217 tons of NOx in 2024 alone,[33] while Plant Bowen, located just 45 miles north of Atlanta, emitted 1,809 tons of NOx in 2024.[34] With all the polluting generation coming and staying online in the state, EPD must consider whether issuing permits for uncontrolled backup diesel generation near Atlanta is at all advisable for public health.

CONCLUSION

For these reasons, EPD should not issue a draft permit based on the Application as written. Rather, EPD should first conduct a cumulative impact analysis of the permitted emissions, as

---

[29] GEORGIA POWER COMPANY, Response to Public Disclosure Data Request # STF-JKA-2-22 (d).
[30] Georgia Public Service Commission Docket No. 55378: Georgia Power Company's 2023 Integrated Resource Plan, *Update Large Load Economic Development Report Q3 2024* at 1.
[31] Georgia Public Service Commission Docket No. 56002: Georgia Power Company's 2025 Integrated Resource Plan, *2025 Integrated Resource Plan PD* at 1.
[32] *Id.* at 2.
[33] UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA), *Clean Air Markets Program Data*, available at: https://campd.epa.gov.
[34] *Id*.

well as an alternative impact analysis that considers replacing some or all of DataBank's Tier II diesel generators with backup batteries. In the alternative, EPD should require the installation of Tier 4 diesel generators (or Tier 2 with SCR), which contain pollution controls to protect public health. Sierra Club appreciates the opportunity to comment on this Application.

Sincerely,



Dori Jaffe
Managing Attorney
Sierra Club
50 F Street NW, Floor 8
Washington, D.C. 20001
dori.jaffe@sierraclub.org

April 4th, 2025

BY ELECTRONIC FILING
Air-Permits.Comments@dnr.ga.gov

Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120,
Atlanta, Georgia 30354

Re: **SIP Draft Air Permit - DataBank Boulder Park Data Center**

On behalf of its nearly 9,000 Georgia members, the Sierra Club submits these comments on Georgia Environmental Protection Division's (EPD) Draft Permit for construction of DataBank's proposed Boulder Park data center in Fulton County, Georgia. The Draft Permit would allow DataBank to install and operate 74 backup diesel generators to be used in the event of a power outage.

EPD's permitting process lacks transparency. EPD did not acknowledge, let alone consider, Sierra Club's comments, submitted on February 21, 2025.[1] Despite the Sierra Club's timely submission of comments via the designated email address, the Draft Permit and Narrative fail to acknowledge or respond to the issues we raised. This raises concerns about whether EPD is adequately reviewing or monitoring public input, as well as the overall transparency of the permitting process. This comment letter reiterates and adds to our objections to DataBank Boulder Park's Application. First, the 74 diesel generators will endanger the state and locality's air quality and particularly affect the children who attend the 30+ schools located within five miles of the DataBank Boulder Park data center. Battery backups are a better alternative that would prevent DataBank from experiencing any interruption in service without significant impacts to public health and air quality. Second, if battery backups are not available to provide all of the necessary backup power, then EPD should require DataBank to install diesel generators with more stringent emissions control technology such as Tier 4 or Tier 2 with selective catalytic

[1] Sierra Club Comments on DataBank Boulder Park - EPD Air Permit Application (Feb. 21, 2025), attached as Exhibit 1.

reduction (SCR). Lastly, EPD should consider the cumulative impacts that DataBank's 74 diesel generators will have on the Atlanta metropolitan area that already has at least 118 data centers, and many others in the pipeline. The issues addressed below are based on publicly available materials, including the Draft Permit, DataBank Boulder Park's Application, and online materials cited within this comment letter.

DATABANK'S APPLICATION AND DRAFT PERMIT

DataBank submitted an Air Permit Application in January 2025 to install and operate 74 diesel generators at its proposed Boulder Park data center.[2] On March 5, 2025, Georgia EPD released a Draft Permit.[3] Georgia Air Quality Rule 391-3-1-.03(10)(b)1(i) establishes the Part 70 Title V major source threshold for each criteria pollutant as 100 tons per year. The Draft Permit allows the DataBank Boulder Park data center to remain classified as a synthetic minor source by holding NOx emissions just below the threshold, at 99.9 tons per year.[4] Before issuing a final permit, EPD should adopt the recommendations in this comment letter.

Comment No. 1: The Draft Permit fails to acknowledge or consider public comments.

On February 21, 2025, the Sierra Club submitted comments on DataBank Boulder Park's Application.[5] The Draft Permit and Narrative fail to acknowledge that the Sierra Club submitted comments, let alone respond to the concerns we raised. This oversight raises concerns about the adequacy of the permit review process. First, it is unclear if EPD did not receive the Sierra Club's comments or if it is not monitoring the email account, where the public was directed to submit its comments: epd.comments@dnr.ga.gov, before it changed to its current email address (Air-Permits.Comments@dnr.ga.gov). The Sierra Club submitted its comments on February 21, 2025 to epd.comments@dnr.ga.gov and did not get a bounce-back email saying the message was undeliverable.

Second, according to EPD's own guidelines,[6] the agency is obligated to consider public comments in the air permit application process. This requirement ensures not only transparency but also an acknowledgement that the final decision to issue a permit reflects comprehensive stakeholder input. Public participation is a critical component of environmental decision-making, and the failure to address comments undermines the integrity of the process. We request that EPD carefully review and address all public comments, including the Sierra Club's, to ensure

[2] DataBank Boulder Park, SIP Permit Application (Dec. 2024) [hereinafter "Application"].
[3] Ga. Envtl. Prot. Div., Air Quality Permit, Permit No. 7374-121-0984-S-01-0 (Mar. 5, 2025) [hereinafter "Draft Permit"].
[4] Ga. Envtl. Prot. Div., Narrative, Permit No. 7374-121-0984-S-01-0 (Feb. 26, 2025) [hereinafter "Draft Permit Narrative"] at 1.
[5] *See* Exhibit 1.
[6] Georgia Rule 391-3-1-.03 (2)(i) requires that the public "be notified and given a chance for comment" before EPD issues "any federally enforceable operating permit." Ga. Comp. R. & Regs. 391-3-1-.03 (2)(i).

that the final permit reflects a comprehensive evaluation of all stakeholder input. Any changes made to the Draft Permit—or lack thereof—in response to comments should be documented.

Comment No. 2: The Draft Permit will allow local air quality to be degraded.

If finalized, the Draft Permit will allow operation of 74 diesel generators, raising concerns about local air quality and public health. Diesel generators generate many harmful pollutants,[7] including "greenhouse gases, particulate matter (PM), volatile organic compounds (VOCs), nitrous oxides (NOx), and sulfur dioxide (SO_2)."[8] Compared to power plants, backup generators "can emit several times more pollution from each unit of fuel burned and unit of electricity delivered."[9] This is precisely why, to protect public health, the developed world relies primarily on large, utility-scale generation rather than distributed fossil generation.

Not only will DataBank Boulder Park's diesel generators emit more pollutants per unit of fuel than utility scale generation, such pollutants can also have acute localized effects. Diesel generators' pollutants "can create smog and exacerbate respiratory conditions, like asthma, chronic obstructive pulmonary disease, and lung cancer, especially for children and older adults."[10] These localized problems occur because, unlike large generation sources, these generators do not have a tall smokestack to disperse the pollutants far above the air that residents breathe or other pollution control equipment that utility-scale facilities must have. This is particularly problematic because "[d]iesel generators tend to be located close to where people live, work, and attend school."[11] This is true of DataBank's Boulder Park data center, which is located within five miles of 30+ schools.[12]

---

[7] Neil D. Strachan & Alexander E. Farrell, Emissions from Distributed Generation, Carnegie Mellon Elec. Indus. Center (2004), available at https://bit.ly/3ZVVq8N ("Uncontrolled diesel engines, such as those from emergency backup generators are <u>not</u> evaluated because previous research has already shown their emissions are very high and regulations typically preclude their use as baseload generation." *Id.* at 3 (Emphasis original)).

[8] M.Cubed, Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California (2021), available at https://bit.ly/3LENog4 [hereinafter "Diesel Back-Up Generation Growth in California"].

[9] Int'l Fin. Corp., The Dirty Footprint of the Broken Grid (Sept. 2019), available at: https://www.ifc.org/content/dam/ifc/doc/mgrt/20190919-full-report-the-dirty-footprint-of-the-broken-grid.pdf, at 23, PDF 33.

[10] Diesel Back-Up Generation Growth in California.

[11] *Id.*

[12] According to Google Maps, DataBank's proposed datacenter is within 2 miles of Appleton School-Early Learning, Miles Intermediate Elementary School, and Adamsville Elementary School; within 3 miles of The Spanish Preschool, Kids 'R' Kids Learning Academy of Cascade, Premier Learning Academy, Harper-Archer Elementary School, Benjamin E. Mays High School; within 4 miles of Angels Academy of Atlanta, The SAE School, Usher-Collier Elementary School, West Manor Elementary School, Peyton Forest Elementary School, Fickett Elementary School, Jean Childs Young Middle School, Atlanta SMART Academy, Ralph J. Bunche Middle School, Sandtown Middle School, Imagine International Academy, and within 5 miles of CHI Montessori Academy, Sesame Seed Academy Inc, Atlanta Trilingual Academy, World Knowledge Preschool, Beecher Hills Elementary School, Kimberly Elementary School, Berean Christian Junior Academy, The B.E.S.T. Academy at The Thomas W. Dortch Jr. Institute, Daniel, McLaughlin Therrell High School, Westlake High School, Frederick Douglass High School.

Georgians need only look to California to see potential impacts to communities by allowing extended generator use. There, increasing wildfire-related outages have led many businesses and residents to rely more heavily on diesel backup.[13] Two districts in California have the generator capacity to power about 15% of California's grid. New research shows that this proliferation in diesel generators will cause $136 million in annual health costs, "due to increases in mortalities, heart attacks, hospital visits and other adverse consequences."[14] These emissions will also occur during power outages, when low-income individuals are already vulnerable. For instance, during a power outage in the summer, low-income individuals who live near DataBank's Boulder Park data center will be without air conditioning *and* will be faced with a decision of whether to open their windows and be exposed to unnecessarily high emissions or else keep their windows shut and bear the brunt of the heat.

We urge EPD to consider the broader cumulative impacts of finalizing this Draft Permit. We recommend that a more comprehensive health risk assessment be conducted, with special attention to how the proposed generators will impact local communities.

Comment No. 3: Batteries are a better, cleaner alternative that should be considered before a Final Permit is issued.

DataBank does not need to use diesel generators as much, if at all, to ensure no interruption in service. Because DataBank does not intend to run its generators but for a short period of time while service is interrupted, battery backups combined with renewable energy is a better, cleaner alternative for DataBank's Boulder Park data center while protecting the community's air quality.

Renewable energy and battery storage is an investment, but it will pay for itself over time. Battery prices have reached record lows in recent years.[15] The payback period could also be shortened considerably when the alternative is considered: running diesel generators that have costly and often volatile fuel prices.[16] Battery storage would provide the same dispatchable firm capacity value as a diesel generator, and batteries are readily available and cost-competitive today. Some data centers have been able to use renewable energy and battery storage to operate

[13] Business Wire, New Study Shows a Rapid Increase of Diesel-Fueled Backup Generators Across California (Oct. 6, 2021), available at: https://bwnews.pr/3yVGc7L.
[14] *Id.*
[15] BloombergNEF, Lithium-Ion Battery Pack Prices See Largest Drop Since 2017, Falling to $115 per Kilowatt-Hour (Dec. 10, 2024), available at: https://about.bnef.com/blog/lithium-ion-battery-pack-prices-see-largest-drop-since-2017-falling-to-115-per-kilowatt-hour-bloombergnef/.
[16] Chris Isidore & Christopher Hickey, Gas Prices Had a Wild Ride This Year, Making 2023 Tough to Predict, CNN Business (Dec. 29, 2022), available at: https://cnn.it/3yWlpRE.

data centers without grid power usage and without interruptions in power supply.[17] Others, like Google, are using battery-based systems to replace their back-up diesel generators.[18]

From the information available in the Application and Draft Permit, it does not appear that battery backup or renewable energy was even considered as a viable alternative, but it should be before allowing diesel-fueled generators. For those reasons, we ask that EPD perform an alternative analysis that would study the feasibility of replacing DataBank Boulder Park's diesel generators with batteries and/or on-site renewable energy and how that would impact emission limits.

Comment No. 4: In the alternative, the Final Permit should require DataBank to use diesel generators with the most stringent emissions control technology.

The Draft Permit requires DataBank to install generators that comply only with EPA's Tier 2 generator emissions standards.[19] Tier 2 emissions standards come up short on protecting public health, especially for a project located within five miles of 30+ schools. Tier 2 technology allows for massive amounts of NOx pollution, while other technologies—like Tier 4 or Tier 2 with SCR—have more efficient controls that reduce emissions. SCR involves injecting ammonia into exhaust gas where it reacts with NOx to form nitrogen and water, decreasing NOx emissions substantially,[20] while Tier 4 is a more stringent EPA standard introduced in 2004 for non-road diesel engines that reduces emissions limits for various air pollutants like NOx and particulate matter.[21] As shown in Table 1 below, Tier 2 diesel generators emit ten times more NOx pollution than Tier 4 generators or Tier 2 generators with SCR.

[17] Eaton, Eaton Provides Webaxys' New Eco-Designed Data Center With a Complete Energy Storage & Management System (Nov. 2016), available at: https://eaton.works/3JThlqz.
[18] Google, 24/7 Carbon-Free Energy: Powering up new clean energy projects across the globe (Apr. 21, 2022), available at: https://bit.ly/407WUwW.
[19] Draft Permit at 2.
[20] Aaron Larson, Understanding Selective Catalytic Reduction Systems and SCR Design Considerations, Power Magazine (Nov. 1, 2023), available at: https://www.powermag.com/understanding-selective-catalytic-reduction-systems-and-scr-design-considerations/.
[21] 68 Fed. Reg. 38958 (June 29, 2024).

Table 1: Engine Technology Hierarchy[22]

Table 1: Engine Technology Hierarchy				
Type	Classification		Maximum Operating Service	NO_X Emissions
	State	**Federal**		
DIESEL ENGINES				
Tier II	Emergency	Emergency	Limit all operation to less than major source levels	18.0 lb/MW
Tier II + SCR*	Non-emergency	Emergency	Limit all operation to less than major source levels	1.8 lb/MW
Tier IV	Non-emergency	Non-emergency	Limit all operation to less than major source levels	1.8 lb/MW
NATURAL GAS ENGINES				
EPA Compliant	Emergency	Emergency	Limit all operation to less than major source levels	6.0 lb/MW
EPA Compliant	Non-emergency	Non-emergency	Limit all operation to less than major source levels	3.0 lb/MW
EPA + Controlled	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-1.5 lb/MW
NATURAL GAS SIMPLE CYCLE COMBUSTION TURBINES				
Low-NOx	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-0.5 lb/MW
Low-NOx with SCR	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.1 lb/MW
**Where SCR = Selective Catalytic Reduction system = an active air pollution control system that reduces NOx emissions; a Tier II engine equipped with an add-on SCR is sometimes referred to as a "Tier IV equivalent" engine*				

As mentioned in Comment 3 above, Georgia EPD can protect air quality for Georgians and the children who attend the 30+ schools in the area, by requiring DataBank Boulder Park to install battery storage and renewables as their backup generation instead of diesel generators. To the extent they cannot secure all of their backup capacity through renewables, EPD should require DataBank to install Tier 4 generators or Tier 2 generators with SCR, both of which would reduce harmful emissions and better protect the public and the communities surrounding this data center.

Virginia, the state with the largest number of data centers in the world,[23] recently released a guidance document recommending that data centers incorporate "controlled" generators (Tier 2 with SCR or Tier 4 emissions controls) into their backup generator mix.[24] For data centers with a large number of backup generators, they suggested that "100% controlled generators" may be required.[25]

[22] Va Dep't of Envtl. Quality, Data Center Air Permit Guidelines (Jan. 17, 2025), available at: https://www.deq.virginia.gov/home/showpublisheddocument/27424 [hereinafter "Virginia DEQ Guidelines"] at 2.
[23] Joint Legis. Audit & Rev. Comm'n, Data Centers in Virginia (2023), available at: https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp#:~:text=Northern%20Virginia%20is%20the%20largest,of%20capacity%20in%20the%20Americas.
[24] Virginia DEQ Guidelines at 3.
[25] *Id.*

At least one data center in Virginia has installed this technology. Microsoft Corporation's data center in Warrenton, VA includes 13 diesel generators with SCR installed[26] and according to the permit, the SCR technology reduces NOx emissions from the generators by around 90%.[27] In Indiana and Mississippi, Amazon proposed to install 245 and 384 diesel generators with SCR, respectively.[28] If Microsoft and Amazon can voluntarily install more stringent emissions control technology on their diesel generators, it seems reasonable to expect that others like DataBank be required to do the same.

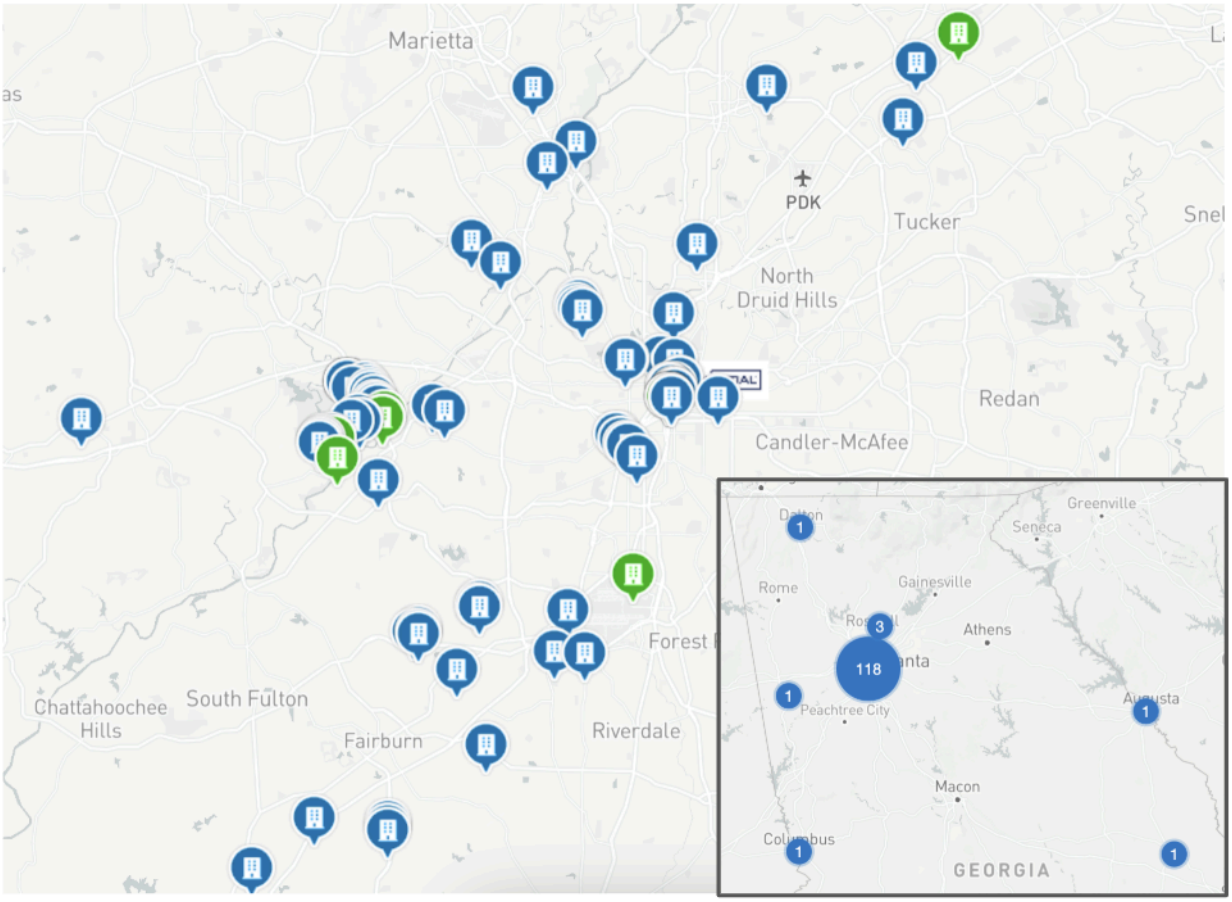
Georgia needs to act now to ensure the anticipated wave of data center development does not lead to unnecessarily high emissions, which could have catastrophic impacts on communities and schools. With numerous data centers expected to be built in the near future, it is crucial to implement stringent emissions controls from the outset. By requiring the use of Tier 4 or Tier 2 with SCR technology, Georgia can protect public health and the environment while accommodating the growing demand for data centers. Adopting these technologies proactively will help mitigate the impact of increased emissions and set a strong precedent for future developments in the region. While Georgia EPD should first require emission-free technologies like battery storage, if DataBank Boulder Park cannot meet 100% of its backup power needs through batteries and renewable energy, then DataBank should be required to install either Tier 4 or Tier 2+SCR backup generators to better protect public health. With better technology available, there is no reason to permit greater emissions than necessary.

Comment No. 5: The Draft Permit should be considered in the larger context of Georgia's growing number of data centers.

The Draft Permit should not be considered in a vacuum. Rather, EPD should take a hard look into the number of data centers proliferating throughout Georgia. That number, particularly around the greater Atlanta area, is growing rapidly. As Figure 1 below shows, Georgia currently has 126 data centers, 118 of which are in Atlanta. 22 new Atlanta area data centers have been added to the map on the Data Center Map site in the month and a half since Sierra Club submitted comments on DataBank's Application.[29] The rate of growth is concerning and EPD cannot ignore the potential for huge NOx emissions in the Atlanta area.

[26] Va Dep't of Envtl. Quality, Stationary Source Permit to Modify and Operate, Registration No.: 74201 (Feb. 8, 2023), available at: https://www.deq.virginia.gov/home/showpublisheddocument/25952/638633854222530000 at 4, PDF 6.https://www.deq.virginia.gov/home/showpublisheddocument/25952/638633854222530000 at 4, PDF 6.
[27] *Id.* at 10, PDF 12.
[28] In. Dept. of Envtl. Mgmt., Preliminary Findings Regarding a New Source Construction and Part 70 Operating Permit, Permit No.: T141-48298-00650, (Feb. 12, 2025) at PDF 7, available at: https://ecm.idem.in.gov/cs/idcplg?IdcService=GET_FILE&dID=83758295&dDocName=83762338&Rendition=web&allowInterrupt=1&noSaveAs=1; Miss. Dep't Envtl. Quality, State of Mississippi Air Pollution Control Permit, Permit No. 1720-00099 (Jan. 28, 2025).
[29] *See* Exhibit 1.

Figure 1: Data Centers in Atlanta[30]



While the emissions limits in the Draft Permit may not seem high enough to affect the State's air quality, if every data center is allowed similar or higher emissions limits, the State's air quality would be in serious jeopardy. For example, if 100 data centers in Atlanta were allowed 99.9 tons per year NOx emissions limits per year for their facilities, they would be allowed to emit 9,990 tons of NOx each year. Non-compliant data centers, facing only small penalties, could drive emissions even higher.[31] EPD should at least do a cumulative impact analysis of the permitted emissions from all backup generators at all 118 data centers in the greater Atlanta area so the public can be better informed of the effects of the diesel generator emissions if they ran at the maximum permitted levels during a power outage.

The data centers are also driving load growth, bringing more polluting generation online that degrades air quality. Georgia Power's 2023 IRP Update indicated that "large load projects correspond to the…influx of new businesses coming to Georgia [including] data centers… These

[30] Data Ctr. Map, Georgia Data Centers (2025), available at: https://www.datacentermap.com/usa/georgia/.
[31] *See* Ga. Envtl. Prot. Div., Enforcement Order EPD-AQC-7419 (2025), available at: https://enfo.gaepd.org/Details/75108.

projects' sizes far exceed historical annual norms, with some surpassing 1,000 MW".[32] To meet this growing demand, Georgia Power plans to build three combustion turbine plants (also called "gas peaker plants"), which will run on oil during peak times when gas is not available. In response to discovery during the 2023 IRP Update before the Georgia Public Service Commission, Georgia Power explained that the new gas peaker plants "will primarily run on fuel oil during peak winter and summer periods when the pipeline is constrained. No [firm transportation] or additional gas capacity is being proposed to support these units since these units can burn oil year around".[33]

More recently, Georgia Power submitted a load forecast update with the Georgia Public Service Commission showing that these numbers have increased yet again:

> As of September 30, 2024, the total pipeline of economic development projects through the mid-2030s has increased by 12,200 MW to 36,500 MW. Of this, 34,600 MW represent large load economic development projects (...) Looking towards the near-term winter of 2028/2029, just as the longer-term total economic development pipeline has grown, the large load pipeline has increased by 6,000 MW now totaling 19,900 MW.[34]

Finally, Georgia Power's 2025 IRP, filed in January, increased projected load yet again, with an additional 2,200 MW of load growth from just last year, driven in large part by data centers like DataBank Boulder Park.[35] Georgia Power admitted that around 80% of the massive load growth is attributable to large load customers like data centers.[36] Due to this load growth, Georgia Power plans to continue operating the coal-burning Plants Scherer and Bowen, heavy emitters of NOx.[37]

EPD must take into consideration not only the diesel generators proliferating around Atlanta but also air pollution from the three new gas peakers plants and the coal plants staying online. The peaker plants are less than 40 miles outside of Atlanta and run on oil during peak times, driving emission from NOx and other pollutants twice as high as if they were run on gas. Coal plants are also extreme NOx polluters. Plant Scherer emitted 7,217 tons of NOx in 2024 alone,[38] while

---

[32] Ga. Power Co., 2023 IRP Update (Oct. 2023), available at: https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/2023-irp-update-main-document.pdf at 9, PDF 13.
[33] Ga. Power Co., Response to Public Disclosure Data Request # STF-JKA-2-22 (d).
[34] Ga. Pub. Serv. Comm'n Docket No. 55378: Georgia Power Company's 2023 Integrated Resource Plan, Update Large Load Economic Development Report Q3 2024 at 1.
[35] Ga. Pub. Serv. Comm'n Docket No. 56002: Georgia Power Company's 2025 Integrated Resource Plan, 2025 Integrated Resource Plan PD at 1.
[36]Ga. Pub. Serv. Comm'n Hearing for Docket #56002: Georgia Power Company's 2025 Integrated Resource Plan, Docket #56003: Georgia Power Company's 2025 Application for the Certification, Decertification, and Amended Demand-Side Management Plan, Day 1 (Mar. 25, 2025), available at: https://www.youtube.com/watch?v=Yyf7f8IsHCE.
[37] *Id.* at 2.
[38] Env't Prot. Agency, Clean Air Markets Program Data (2024), available at: https://campd.epa.gov.

Plant Bowen, located just 45 miles north of Atlanta, emitted 1,809 tons of NOx in 2024.[39] Moreover, as EPD is well aware, Georgia Power recently filed an Air Permit Application for four combined cycles units at Plant Bowen.[40] While the amount of megawatts these units will have is undisclosed, emissions are expected to be massive, as indicated below:[41]

Table 1-1: Project Emissions Increases

Pollutant	Potential Emissions Increases (tons/year)	PSD Significant Emission Rate (tons/year)	Subject to PSD Review (Y/N)
NOx	929.0	40	Y
SO_2	157.2	40	Y
VOC	649.6	40	Y
CO	1,047.8	100	Y
PM (TSP)	279.2	25	Y
PM_{10}	519.4	15	Y
$PM_{2.5}$ Total	517.4	10	Y
CO_2e	12,388,934	75,000	Y
Lead	0.16	0.6	N

With all the polluting generation coming and staying online in the state, EPD must consider whether issuing permits for uncontrolled backup diesel generation near Atlanta is at all advisable for public health.

CONCLUSION

For these reasons, EPD should not finalize the Draft Permit as written. First, EPD should consider and respond to the public comments that were submitted as part of the permitting process to avoid ongoing violations of its own requirements. Second, EPD should conduct a cumulative impact analysis of the emissions from the DataBank Boulder Park data center combined with other permitted, and pending, diesel generators in the Atlanta area, as well as an alternative impact analysis that considers replacing some or all of DataBank Boulder Park's generators with backup batteries or renewable energy. In the alternative, EPD should require the

[39] *Id*.
[40] Georgia Power Company, Title V Permit Application: PSD Application Plant Bowen Units 7-10, Submittal ID: 905935 (Mar. 5, 2025), available at: https://geos.epd.georgia.gov/GA/GEOS/Public/Client/GA_GEOS/Public/Pages/PublicApplicationList.aspx.
[41] *Id.* at 5.

installation of Tier 4 diesel generators (or Tier 2 with SCR), which contain pollution controls to protect public health.

Sierra Club appreciates the opportunity to comment on this Draft Permit.

Sincerely,

/s/ Isabella Ariza

Isabella Ariza
Staff Attorney
Sierra Club
50 F Street NW, Floor 8
Washington, D.C. 20001
isabella.ariza@sierraclub.org

Caden Koontz
Legal Assistant
Environmental Law Program
50 F Street NW, 8th Floor
Washington, DC 20001
caden.koontz@sierraclub.org

Exhibit 1

Air Permit Comments: DataBank Boulder Park Data Center

Inbox ×



Caden Koontz <caden.koontz@sierraclub.org> Fri, Feb 21, 2:06 PM

to epd.comments, Isabella

Good afternoon,

Attached please find the Sierra Club's comments on DataBank Data Center Boulder Park's air permit application. Please reach out to me with any questions.

Thank you,
Caden

February 21, 2025

BY ELECTRONIC FILING
epd.comments@dnr.ga.gov

Georgia Dept Natural Resources
Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120,
Atlanta, Georgia 30354

Re: **SIP Air Permit Application - DataBank Data Center Boulder Park**

On behalf of its nearly 9,000 Georgia members, the Sierra Club submits these comments on DataBank's SIP Air Permit Application for construction of a data center located in Atlanta, Georgia. The Application is requesting to build 74 backup diesel generators to be used during power outages. These diesel generators will endanger the state and county's air quality and particularly affect the children who attend the 30+ schools located within five miles of the DataBank data center. Battery backups are a better alternative that would prevent DataBank from experiencing any interruption in service and prevent significant impacts to air quality and thus public health. In the alternative, DataBank should be required to install backup diesel generators with more stringent emissions control technology such as Tier 4 or Tier 2+SCR. EPD should also consider the cumulative impacts that DataBank's generators will have on an area that already contains over 15 proposed or constructed data centers and hundreds of diesel generators, all less than five miles away. The issues addressed below are based on publicly available materials, including DataBank's application, and online materials cited within this comment letter.

DATABANK'S APPLICATION

DataBank submitted an air permit application in January 2025 to construct a data center in Atlanta, within Fulton County, Georgia. If granted, the Application will allow DataBank to install 74 Tier 2 diesel generators[1].

[1] DATABANK CENTER BOULDER PARK, LLC, *SIP Permit Application* (January 2025) at PDF 10, 15 ("Application").

Georgia Air Quality Rule 391-3-1-.03(10)(b)1(i) establishes the Clean Air Act major source threshold for each criteria pollutant as 100 tons per year. DataBank contends that its data center will stay below the threshold as a synthetic minor source, with a NOx limit of 99.9 tons per year.[2] It does not specify a total operating hour limit beyond a general 200 hours/year/generator limit.[3] DataBank's proposed NOx limit is just barely under the major source threshold and allows no room for error. Before issuing a permit, EPD should adopt the recommendations suggested in this comment letter.

Comment No. 1: The Application, if approved, will allow local air quality to be degraded.

If finalized, the Application will allow DataBank to install 74 Tier 2 diesel generators, raising concerns about local air quality and public health. Diesel generators generate many harmful pollutants,[4] including "greenhouse gases, particulate matter (PM), volatile organic compounds (VOCs), nitrous oxides (NOx), and sulfur dioxide (SO_2)."[5] Compared to power plants, backup generators "can emit several times more pollution from each unit of fuel burned and unit of electricity delivered."[6] This is precisely why, to protect public health, the developed world relies primarily on large, utility-scale generation rather than distributed fossil generation.

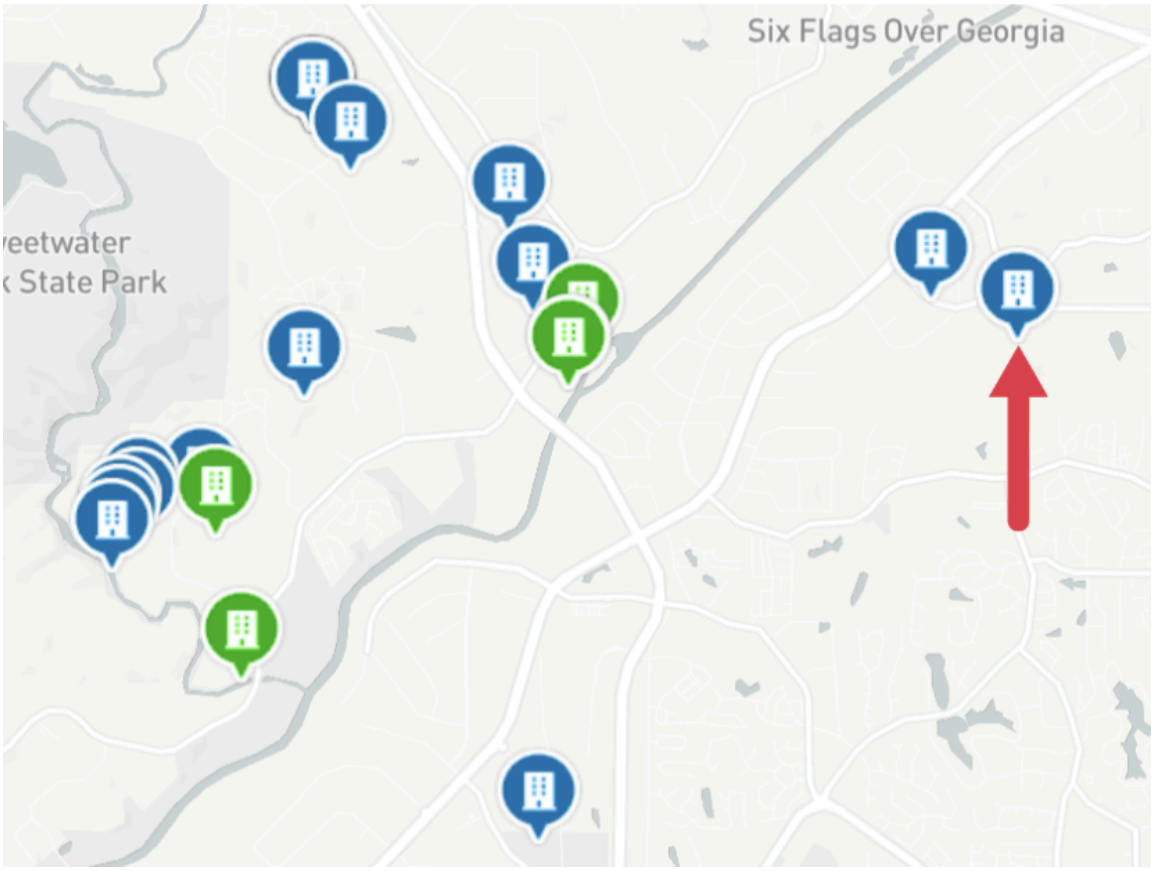
Not only will DataBank's diesel generators emit more pollutants per unit of fuel than utility scale generation, such pollutants can also have acute localized effects. Diesel generator pollutants "can create smog and exacerbate respiratory conditions, like asthma, chronic obstructive pulmonary disease, and lung cancer, especially for children and older adults."[7] These localized problems occur because, unlike large generation sources, these generators do not have a tall smokestack to disperse the pollutants far above the air that residents breathe or other pollution control equipment that utility-scale facilities must have. This is particularly problematic because "[d]iesel generators tend to be located close to where people live, work, and attend school."[8] This is true of DataBank's data center, which is located within five miles of 30+ schools.[9]

---

[2] *Id.* at PDF 10.
[3] *Id.*
[4] Neil D. Strachan & Alexander E. Farrell, *Emissions from Distributed Generation*, CARNEGIE MELLON ELEC. INDUS. CENTER (2004), available at https://bit.ly/3ZVVq8N ("Uncontrolled diesel engines, such as those from emergency backup generators are not evaluated because previous research has already shown their emissions are very high and regulations typically preclude their use as baseload generation." *Id.* at 3 (Emphasis original)).
[5] M.CUBED. *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California* (2021), available at https://bit.ly/3LENog4.
[6] INT'L FIN. CORP. *The Dirty Footprint of the Broken Grid* (Sept. 2019), available at https://www.ifc.org/content/dam/ifc/doc/mgrt/20190919-full-report-the-dirty-footprint-of-the-broken-grid.pdf at 23 (PDF 33).
[7] *Diesel Back-Up Generator Population Grows Rapidly in the Bay Area and Southern California*, *supra* note 6.
[8] *Id.*
[9] According to Google Maps, DataBank's proposed datacenter is within 2 miles of Appleton School-Early Learning, Miles Intermediate Elementary School, and Adamsville Elementary School; within 3 miles of The Spanish Preschool, Kids 'R' Kids Learning Academy of Cascade, Premier Learning Academy, Harper-Archer Elementary School, Benjamin E. Mays High School; within 4 miles of Angels Academy of Atlanta, The SAE School, Usher-Collier Elementary School, West Manor Elementary School, Peyton Forest Elementary School, Fickett Elementary School, Jean Childs Young Middle School, Atlanta SMART Academy, Ralph J. Bunche Middle School,

In addition, there are currently at least 15 proposed or constructed data centers within five miles of the proposed DataBank center, as shown below. This Application will add another 74 Tier 2 diesel generators to the hundreds already permitted, making localized health effects particularly acute for those who live, work, or go to school in the area.

Figure 1: Data Centers Near DataBank Boulder Park[10]



The DataBank Boulder Park data center is located in Fulton County, near communities in the 83rd percentile for low income.[11] Thus, these localized emissions are more likely to affect those of lesser means than data centers in more affluent areas.[12]

Sandtown Middle School, Imagine International Academy, and within 5 miles of CHI Montessori Academy, Sesame Seed Academy Inc, Atlanta Trilingual Academy, World Knowledge Preschool, Beecher Hills Elementary School, Kimberly Elementary School, Berean Christian Junior Academy, The B.E.S.T. Academy at The Thomas W. Dortch Jr. Institute, Daniel, McLaughlin Therrell High School, Westlake High School, Frederick Douglass High School.

[10] DATA CENTER MAP, Georgia Data Centers (2025), available at: https://www.datacentermap.com/usa/georgia/. Red arrow points to the DataBank Boulder Park facility.

[11] ENVIRONMENTAL DATA AND GOVERNANCE INSTITUTE, Climate and Economic Justice Screening Tool, available at: https://edgi-govdata-archiving.github.io/j40-cejst-2/en/

[12] Impoverished individuals are already more likely to have health problems and are also less able to gain access to healthcare should they become sick from localized air pollution. *See* Poverty, U.S. DEP'T OF HEALTH AND HUMAN SERVICES, available at: https://health.gov/healthypeople/priority-areas/social-determinants-health/literature-summaries/poverty.

Georgians need only look to California to see potential impacts to communities by allowing extended generator use. There, increasing wildfire-related outages have led many businesses and residents to rely more heavily on diesel backup.[13] Two districts in California have the generator capacity to power about 15% of California's grid. New research shows that this proliferation in diesel generators will cause $136 million in annual health costs, "due to increases in mortalities, heart attacks, hospital visits and other adverse consequences."[14] These emissions will also occur during power outages, when low-income individuals are already vulnerable. For instance, during a power outage in the summer, low-income individuals who live near DataBank's Boulder Park data center will be without air conditioning *and* will be faced with a decision of whether to open their windows and be exposed to unnecessarily high emissions from the 15+ data centers and hundreds of diesel generators within five miles or keep their windows shut and bear the brunt of the heat.

We urge EPD to consider the broader cumulative impacts of approving this Application, particularly in an area already burdened with air quality issues and vulnerable populations. We recommend that a more comprehensive health risk assessment be conducted, with special attention to how the proposed generators will impact local communities.

Comment No. 2: Batteries are a better, cleaner alternative that should be considered before the Application is granted.

DataBank does not need to use diesel generators as much, if at all, to ensure no interruption in service. Because DataBank's application admitted that the company does not intend to run its generators but for a short period of time while service is interrupted, battery backups combined with renewable energy is a better, cleaner alternative for DataBank while protecting the community's air quality.

Renewable energy and battery storage is an investment, but it will pay for itself over time. And that payback period could be shortened considerably when the alternative is considered: running diesel generators that have costly and often volatile fuel prices.[15] Battery storage would provide the same dispatchable firm capacity value as a diesel generator, and batteries are readily available and cost-competitive today. Some data centers have been able to use renewable energy and battery storage to operate data centers without grid power usage and without interruptions in

[13] BUSINESSWIRE, *New Study Shows a Rapid Increase of Diesel-Fueled Backup Generators Across California* (Oct. 6, 2021), available at https://bwnews.pr/3yVGc7L.
[14] *Id.*
[15] Chris Isidore & Christopher Hickey, *Gas Prices Had a Wild Ride This Year, Making 2023 Tough to Predict*, CNN BUSINESS (Dec. 29, 2022), available at https://cnn.it/3yWlpRE.

power supply.[16] Others, like Google, are using battery-based systems to replace their back-up diesel generators.[17]

From the information available in the Application, it does not appear that battery backup or renewable energy was even considered as a viable alternative, but it should be before allowing diesel-fueled generators. For those reasons, we ask that EPD perform an alternative analysis that would study the feasibility of replacing DataBank's diesel generators with batteries and/or on-site renewable energy and how that would impact emission limits.

Comment No. 3: In the alternative, the Applicant should be required to use diesel generators with the most stringent emissions control technology.

In the Application, DataBank proposes to purchase diesel generators that comply only with EPA's Tier 2 emissions standards.[18] Tier 2 emissions standards come up short on protecting public health, especially for a project located within five miles of 30 schools, in an area with at least 15 proposed or constructed data centers. Indeed, Tier 2 technology allows for massive amounts of NOx emissions, while other technologies –like Tier 4 or Tier 2 with selective catalytic reduction (SCR)– have more efficient controls that reduce emissions. SCR involves injecting ammonia into exhaust gas where it reacts with NOx to form nitrogen and water, decreasing NOx emissions substantially,[19] while Tier 4 is a more stringent EPA standard introduced in 2004 for non-road diesel engines that reduces emissions limits for various air pollutants like NOx and particulate matter.[20] As shown in the table below, Tier 2 diesel generators emit ten times more NOx pollution than Tier 4 generators or Tier 2 with SCR.

[16] EATON, *Eaton Provides Webaxys' New Eco-Designed Data Center With a Complete Energy Storage & Management System* (Nov. 2016), available at https://eaton.works/3JThlqz.
[17] GOOGLE, *24/7 Carbon-Free Energy: Powering up new clean energy projects across the globe* (Apr. 21, 2022), available at https://bit.ly/407WUwW.
[18] *SIP Permit Application*, supra note 1 at 3, PDF 6.
[19] Aaron Larson, Understanding Selective Catalytic Reduction Systems and SCR Design Considerations, POWER MAGAZINE (Nov. 1, 2023), available at: https://www.powermag.com/understanding-selective-catalytic-reduction-systems-and-scr-design-considerations/.
[20] 68 Fed. Reg. 38958 (June 29, 2024).

Table 1: Engine Technology Hierarchy[21]

Table 1: Engine Technology Hierarchy				
Type	Classification		Maximum Operating Service	NO_x Emissions
	State	**Federal**		
DIESEL ENGINES				
Tier II	Emergency	Emergency	Limit all operation to less than major source levels	18.0 lb/MW
Tier II + SCR*	Non-emergency	Emergency	Limit all operation to less than major source levels	1.8 lb/MW
Tier IV	Non-emergency	Non-emergency	Limit all operation to less than major source levels	1.8 lb/MW
NATURAL GAS ENGINES				
EPA Compliant	Emergency	Emergency	Limit all operation to less than major source levels	6.0 lb/MW
EPA Compliant	Non-emergency	Non-emergency	Limit all operation to less than major source levels	3.0 lb/MW
EPA + Controlled	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-1.5 lb/MW
NATURAL GAS SIMPLE CYCLE COMBUSTION TURBINES				
Low-NOx	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.3-0.5 lb/MW
Low-NOx with SCR	Non-emergency	Non-emergency	Limit all operation to less than major source levels	0.1 lb/MW
**Where SCR = Selective Catalytic Reduction system = an active air pollution control system that reduces NOx emissions; a Tier II engine equipped with an add-on SCR is sometimes referred to as a "Tier IV equivalent" engine*				

As mentioned in Comment 2 above, Georgia EPD can protect air quality for Georgians by requiring data centers to install battery storage and renewables as their backup generation instead of diesel generators. But, to the extent they cannot secure all of their backup capacity through renewables, EPD should require that DataBank incorporate Tier 4 generators or Tier 2 generators with SCR which would reduce harmful emissions and better protect the public.

Indeed, Virginia, the state with the largest number of data centers in the world,[22] recently released a guidance document recommending that data centers incorporate "controlled" generators (Tier 2 with SCR or Tier 4 emissions controls) into their backup generator mix.[23] For data centers with a

[21] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Data Center Air Permit Guidelines (Jan. 17, 2025), available at: https://www.deq.virginia.gov/home/showpublisheddocument/27424 at 2.
[22] JOINT LEGISLATIVE AUDIT AND REVIEW COMMISSION, Data Centers in Virginia (2023), available at: https://jlarc.virginia.gov/landing-2024-data-centers-in-virginia.asp#:~:text=Northern%20Virginia%20is%20the%20largest,of%20capacity%20in%20the%20Americas.
[23] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Data Center Air Permit Guidelines (Jan. 17, 2025), available at: https://www.deq.virginia.gov/home/showpublisheddocument/27424 at 3.

large number of backup generators, they suggested that "100% controlled generators" may be required.[24]

At least one data center in Virginia has installed this technology. Microsoft Corporation's datacenter in Warrenton, VA includes thirteen diesel generators with SCR installed[25] and according to the permit, the SCR technology reduces NOx emissions from the generators by around 90%.[26]

Georgia needs to act now to ensure the anticipated wave of data center development does not lead to unnecessarily high emissions, which could have catastrophic impacts on communities and schools. With numerous data centers expected to be built in the near future, it is crucial to implement stringent emissions controls from the outset. By requiring the use of Tier 4 or Tier 2 with SCR technology, Georgia can protect public health and the environment while accommodating the growing demand for data centers. Adopting these technologies proactively will help mitigate the impact of increased emissions and set a strong precedent for future developments in the region. While Georgia EPD should first require emission-free technologies like battery storage, if DataBank cannot meet 100% of their backup power needs through batteries and renewable energy, then DataBank should be required to install either Tier 4 or Tier 2+SCR backup generators to better protect public health. With better technology available, there is no reason to permit greater emissions than necessary.

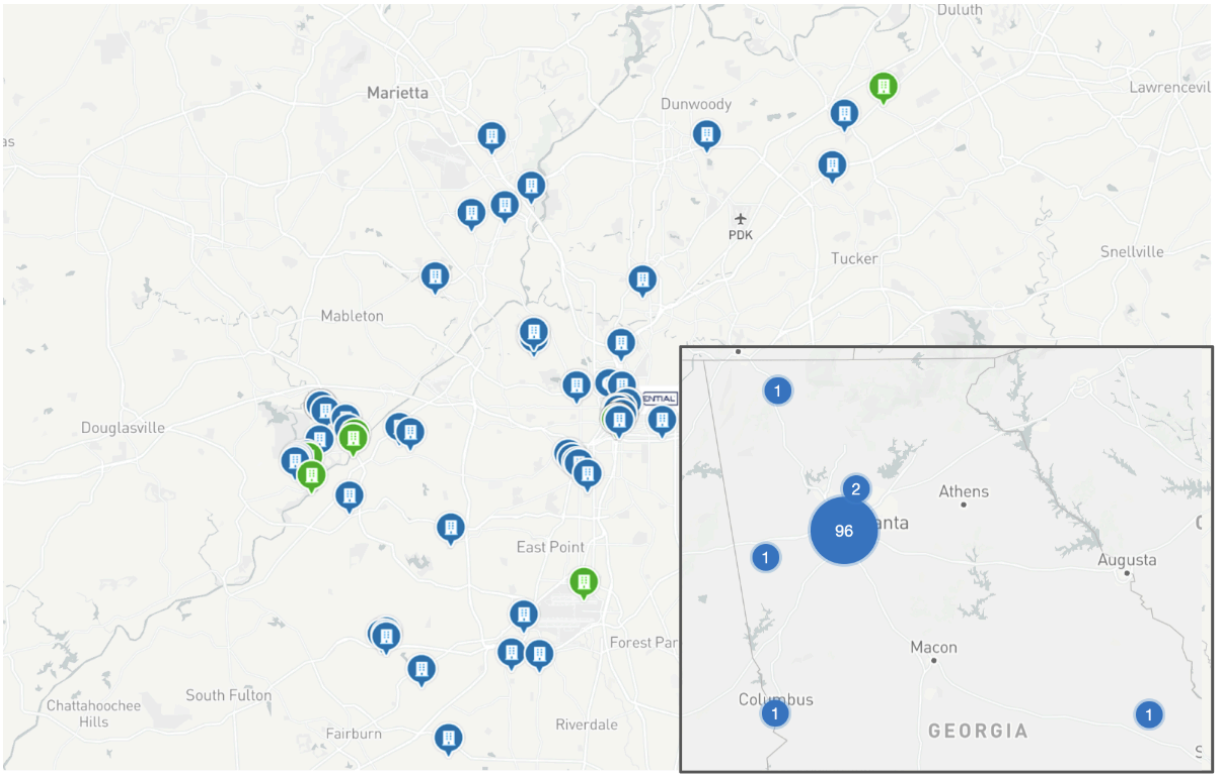
Comment No. 4: The Application should be considered in the larger context of Georgia's growing number of data centers.

The Application should not be considered in a vacuum. Rather, EPD should take a hard look into the number of data centers in Georgia. The number, particularly in the greater Atlanta area, is growing rapidly. As Figure 2 below shows, Georgia currently has at least 102 data centers, 96 of which are in Atlanta.

---

[24] *Id.*
[25] VIRGINIA DEPT. OF ENVIRONMENTAL QUALITY, Stationary Source Permit to Modify and Operate, Registration No.: 74201 (Feb. 8, 2023), available at: https://www.deq.virginia.gov/home/showpublisheddocument/25952/638633854222530000 at 4, PDF 6.
[26] Id. at 10, PDF 12.

Figure 2: Data Centers in Atlanta[27]



While the emissions limits in the Application may not seem high enough to affect the State's air quality, if every data center is allowed similar or higher emissions limits, the State's air quality would be in serious jeopardy. For example, if just 100 data centers in Atlanta were allowed 99.9 tons per year NOx emissions limits per year for their facilities, they would be allowed to emit 9,990 tons of NOx each year. EPD should at least do a cumulative impact analysis of the permitted emissions from all backup generators at all 96 data centers in the greater Atlanta area so the public can be better informed of the effects of the emissions from such facilities if they ran their generators at the maximum permitted levels during a power outage.

The data centers are also driving load growth, bringing more polluting generation online that degrades air quality. Georgia Power's 2023 IRP Update indicated that "large load projects correspond to the…influx of new businesses coming to Georgia [including] data centers… These projects' sizes far exceed historical annual norms, with some surpassing 1,000 MW".[28] To meet this growing demand, Georgia Power plans to build three combustion turbine plants (also called "gas peaker plants"), which will run on oil during peak times when gas is not available. In response to discovery during the 2023 IRP Update before the Georgia Public Service

[27] DATA CENTER MAP, Georgia Data Centers (2025), available at: https://www.datacentermap.com/usa/georgia/.
[28] GEORGIA POWER COMPANY, *2023 IRP Update* (Oct. 2023), available at: https://www.georgiapower.com/content/dam/georgia-power/pdfs/company-pdfs/2023-irp-update-main-document.pdf at 9 (PDF 13).

Commission, Georgia Power explained that the new gas peaker plants "will primarily run on fuel oil during peak winter and summer periods when the pipeline is constrained. No [firm transportation] or additional gas capacity is being proposed to support these units since these units can burn oil year around".[29]

More recently, Georgia Power submitted a load forecast update with the Georgia Public Service Commission showing that these numbers have increased yet again:

> As of September 30, 2024, the total pipeline of economic development projects through the mid-2030s has increased by 12,200 MW to 36,500 MW. Of this, 34,600 MW represent large load economic development projects (...) Looking towards the near-term winter of 2028/2029, just as the longer-term total economic development pipeline has grown, the large load pipeline has increased by 6,000 MW now totaling 19,900 MW.[30]

Finally, Georgia Power's 2025 IRP, filed in January, projects more than 2,200 MW of load growth over estimates in the 2023 IRP Update, driven in large part by data centers.[31] Due to this load growth, Georgia Power plans to continue operating the coal-burning Plants Scherer and Bowen, heavy producers of NOx emissions.[32]

EPD must take into consideration not only the diesel generators proliferating around Atlanta, but also air pollution from the three new gas peakers plants and the coal plants staying online. The peaker plants are less than 40 miles outside of Atlanta and run on oil during peak times, driving emission from NOx and other pollutants twice as high as if they were run on gas. Coal plants are also extreme NOx polluters. Plant Scherer emitted 7,217 tons of NOx in 2024 alone,[33] while Plant Bowen, located just 45 miles north of Atlanta, emitted 1,809 tons of NOx in 2024.[34] With all the polluting generation coming and staying online in the state, EPD must consider whether issuing permits for uncontrolled backup diesel generation near Atlanta is at all advisable for public health.

CONCLUSION

For these reasons, EPD should not issue a draft permit based on the Application as written. Rather, EPD should first conduct a cumulative impact analysis of the permitted emissions, as

---

[29] GEORGIA POWER COMPANY, Response to Public Disclosure Data Request # STF-JKA-2-22 (d).
[30] Georgia Public Service Commission Docket No. 55378: Georgia Power Company's 2023 Integrated Resource Plan, *Update Large Load Economic Development Report Q3 2024* at 1.
[31] Georgia Public Service Commission Docket No. 56002: Georgia Power Company's 2025 Integrated Resource Plan, *2025 Integrated Resource Plan PD* at 1.
[32] *Id.* at 2.
[33] UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (EPA), *Clean Air Markets Program Data*, available at: https://campd.epa.gov.
[34] *Id*.

well as an alternative impact analysis that considers replacing some or all of DataBank's Tier 2 diesel generators with backup batteries. In the alternative, EPD should require the installation of Tier 4 diesel generators (or Tier 2 with SCR), which contain pollution controls to protect public health. Sierra Club appreciates the opportunity to comment on this Application.

Sincerely,



Dori Jaffe
Managing Attorney
Sierra Club
50 F Street NW, Floor 8
Washington, D.C. 20001
dori.jaffe@sierraclub.org

King & Spalding LLP
1180 Peachtree Street N.E.
Atlanta, Georgia 30309-3521
Main: 404-572-4600
Fax: 404-572-5100
www.kslaw.com

Les Oakes
Direct Dial: 404-572-3314
LOakes@kslaw.com

KING & SPALDING

April 4, 2025

VIA Email

Mr. Steve Allison
Program Manager
Stationary Source Permitting Program
Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354-3906

RE: Draft Air Quality Permit
4762 Bakers Ferry Rd. SW
Atlanta, Georgia 30336 Fulton County
Facility AIRS Number: 4-13-121-0984

Dear Mr. Allison:

I am writing on behalf of our client, DB Data Center Boulder Park, LLC ("Data Center"), concerning the above referenced draft air quality permit. My client previously filed comments on the draft permit through its environmental consultant, Dr. Josie Bates of Ramboll. Those prior comments (attached by email) focused on the Air Protection Branch's recent decision, contrary to prior discussions or practice, to require Data Center to comply with Rule 391-3-1-.02(2)(mmm)8 rather than Rule 391-3-1-.02(2)(mmm)7. The comment period for this draft permit closes on April 4, 2025. Accordingly, these comments are timely filed.

As you know, before Data Center filed its application, Data Center discussed with the Air Permit Program how it could satisfy the requirements of Rule 391-3-1-

.02(2)(mmm), including through the application of subparagraph (mmm)7. When Data Center filed its application for this permit, my client specifically requested that its operations be regulated by subparagraph (mmm)7. Data Center appreciates that Rule 391-3-1-.02(2)(mmm) could also be satisfied through the application of subparagraph (mmm)8, which would provide Data Center additional hours of operation of its emergency generator engines on an annual basis, up to a total of 500 hours per year. However, as previously directed by EPD, Data Center modelled its operations on the more stringent 200 hours per year set forth in Rule 391-3-1-.02(2)(mmm)7.

As you also know, subparagraph (mmm)8 of the Rule only allows routine testing to be conducted at night between the hours of 10:00 p.m. and 4:00 a.m. during the ozone season. Unfortunately, as Data Center has explained to the Air Permitting Program, Data Center is constrained by a local noise ordinance that could prohibit it from operating or testing its equipment during those nighttime hours. Data Center understands that EPD does not regulate noise, but the City of South Fulton does, and Data Center must comply with all applicable standards. Data Center understands that if the local ordinance regulated air emissions, EPD's Rules would control, but here the parameter regulated is noise not air emissions. EPD's change of regulatory interpretation thus potentially puts Data Center in an impossible situation.

Despite having just issued a permit to another, similar facility on December 31, 2024, had EPD apprised Data Center at the outset of this permitting process that compliance with subparagraph (mmm)8 would be mandated in its permit, my client could have evaluated possible alternatives, such as installing pollution limiting equipment before designing its proposed facility. Modifying its operating plan at this point to test its emergency generators exclusively during nighttime hours to comply with subparagraph (mmm)8 would cost Data Center roughly $240,000 a year, assuming that work could be done at all without violating local noise regulations. Data Center should not be punished for having made its facility design decisions in accordance with and relying upon EPD's prior regulatory interpretation and practice.

Moreover, beyond these significant, practical problems, there is no legal basis for EPD's current interpretation of the Rules for Air Quality Control Rules. Indeed, this is confirmed by EPD's past practice of issuing permits in these precise circumstances pursuant to subparagraph (mmm)7 to other similar facilities. Data Center has identified multiple permits issued to similar facilities, including a permit issued on December 31,

2024, where subparagraph (mmm)7 was incorporated into the permit. The Division's change of its established permit issuing practice less than a month later is simply inexplicable.

Data Center has reviewed all the provisions of Rule 391-3-1-.02(2)(mmm) and nowhere has Data Center found a requirement that stationary engines at data centers must comply with subparagraph (mmm)8. Data Center is familiar with the many provisions of the Rules for Air Quality Control, and the regulations expressly state when an air emission source must comply with a specific air emission limiting requirement. Here that is not the case. To the contrary, subparagraphs (mmm)7 and (mmm)8 function to provide independent exemptions to the requirements contained in Rule 391-3-1-.02(2)(mmm)1. Subparagraph (mmm)7 provides an exemption in the case of "emergency standby stationary gas turbines and stationary engines," as that term is defined in subparagraph 4. (i). *See* Rule 391-3-1-.02(2)(mmm)7 ("Emergency standby stationary gas turbines and stationary engines which meet the definition stated in paragraph 4. (i) are not subject to the emission limitations of paragraph 1."). Subparagraph (mmm)8 provides a separate exemption for "stationary engines at data centers" that meet all the listed criteria. *See* Rule 391-3-1-.02(2)(mmm)8. Nowhere in the Rules are these exemptions to the requirements of subparagraph (mmm)1 designated as mutually exclusive. Rather, an exception may be obtained pursuant to subparagraph (mmm)7, or subparagraph (mmm)8, or both, provided the requirements specific to that subparagraph are satisfied. Nothing in the Rules precludes application of the exemption contained in subparagraph (mmm)7 for data centers. It would be an abuse of discretion for EPD to deny application of subparagraph (mmm)7 for reasons not specifically identified and mandated by subparagraph (mmm)7 itself.

When Data Center asked why the Air Permitting Program was going to require the facility to comply with subparagraph (mmm)8, it got no clear explanation. The purpose of this letter is to request the Air Permitting Program issue the permit by stripping out references to subparagraph (mmm)8 and replacing those references with subparagraph (mmm)7. We are not aware of any legal reason that would require Data Center to comply with subparagraph (mmm)8 to the exclusion of subparagraph (mmm)7. If EPD has a legal justification to support this position, please provide it.

Finally, it is worth noting that the application of subparagraph (mmm)7 to the present circumstances would reduce the impact on air quality in Atlanta when the facility

begins to operate given the fewer hours of operation allowed on an annual basis or during the ozone season. Accordingly, Data Center believes that its requested permit condition will have a lower overall impact on air quality in the Atlanta air shed throughout the year.[1]

Data Center is prepared to discuss this request. To arrange a meeting or call, please feel free to contact the undersigned.

Sincerely,



Les Oakes

Attachments (via email)

cc: Ms. Jenny Gerson (w/attach.)

[1] Data Center is aware that the Air Branch recently briefed the Board of Natural Resources on several proposed changes to the Rules for Air Quality Control; however, the contemplated changes have not been adopted and may not be adopted as briefed. Additionally, the proposed revisions, even if adopted, would not require the sole and exclusive use of subparagraph 8 at every data center as EPD appears now to be suggesting.