February 13, 2026

VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

Elon Musk
CEO
X.AI Corp.
d/b/a xAI
1450 Page Mill Road
Palo Alto, CA 94304

Corporation Service Company
Registered Agent for X.AI Corp.
112 North Curry Street
Carson City, NV 89703

Brent Mayo
Manager and Authorized Signatory
MZX Tech LLC
1450 Page Mill Road
Palo Alto, CA 94304

Jared Birchall
Secretary
MZX Tech LLC
2110 Ranch Road 620 S., #341886
Lakeway, TX 78734

Registered Agent Solutions, Inc.
Registered Agent for MZX Tech LLC
8927 Lorraine Road, Suite 204-A
Gulfport, MS 39503

Elon Musk, CEO
Space Exploration Technologies Corp.
d/b/a SpaceX
1 Rocket Road
Hawthorne, CA 90250

Lee Zeldin
Administrator
Environmental Protection Agency
Office of the Administrator
Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Kevin J. McOmber, P.E.
Regional Administrator
Main Regional Office - U.S. EPA Region 4
61 Forsyth Street SW
Atlanta, GA 30303

Governor Tate Reeves
Office of the Governor of Mississippi
550 High Street
Sillers Building, 19th Floor
Jackson, MS 39201

Chris Wells
Executive Director
Mississippi Department of Environmental Quality
P.O. Box 2261
Jackson, MS 39225

Corporation Service Company
d/b/a CSC - Lawyers Incorporating Service Company
Registered Agent for Space Exploration Technologies Corp.
211 E. 7th Street, Suite 620
Austin, TX 78701

RE: Notice of Intent to Sue for Violations of the Clean Air Act at the Gas Turbines Power Plant Located at 2875 Stanton Road S., Southaven, MS, that Powers xAI's Colossus II Data Center

To All Recipients:

This letter provides notice that the National Association for the Advancement of Colored People and the NAACP Mississippi State Conference (collectively, "NAACP") intend to file suit

against MZX Tech LLC and X.AI Corp. (hereafter and jointly, "xAI") for their past and ongoing violations of the federal Clean Air Act occurring at 2875 Stanton Road S., Southaven, Mississippi.

On August 1, 2025, xAI began installing and then operating combustion turbines at the Stanton Road site without obtaining the necessary preconstruction or operating air permits, in violation of the Clean Air Act.

As of the date of this letter, xAI has installed at least 27 turbines with a generating capacity of 495 MW—functionally, an unpermitted power plant. These turbines were evidently installed to power xAI's new Colossus II data center at 5400 Tulane Road, Whitehaven, Tennessee. Combined, the turbines have the potential to emit a significant amount of smog-forming nitrogen oxides ("NOx") per year—well above the Clean Air Act's major source threshold—and numerous other harmful pollutants, such as fine particulate matter and carcinogenic formaldehyde. Pollution from these turbines is worsening and will continue to worsen the already poor air quality in Southaven, Mississippi and the Memphis metropolitan area.

The NAACP advocates for environmental and climate justice, and it is committed to ensuring that local communities and its members—including in Mississippi and Tennessee—are protected from harmful pollution from fossil fuel combustion. Unless the violations detailed below are fully addressed, the NAACP intends to file suit under Section 304 of the Clean Air Act, 42 U.S.C. § 7604, in the United States District Court for the Northern District of Mississippi after the applicable notice period has expired. The NAACP will seek injunctive relief, civil penalties, mitigation, fees and costs of litigation, and such other relief as the Court deems appropriate to address the violations.

If you would like to discuss any factual or legal issues set forth in this letter, or a possible resolution of this matter during the notice period, please contact the undersigned attorneys.

I. FACTUAL BACKGROUND

A. xAI's data center footprint in the Memphis and Southaven areas

xAI—a private, multibillion dollar company founded by Elon Musk[1]—is rapidly constructing a large-scale data center footprint in the greater Memphis and Southaven area. These data centers are used by xAI to train Grok—an AI chatbot integrated into the social media platform

[1] In February 2026, SpaceX—another Elon Musk company—acquired xAI, combining the two privately held companies into one with an estimated $1.25 trillion valuation. Echo Wang & Joey Roulette, *SpaceX Acquires xAI in Record-Setting Deal as Musk Looks to Unify AI and Space Ambitions*, REUTERS (Feb. 2, 2026), https://www.reuters.com/business/musks-spacex-merge-with-xai-combined-valuation-125-trillion-bloomberg-news-2026-02-02/ [https://perma.cc/67UH-DKK6].

X (formerly Twitter).[2] Each data center requires a large amount of power.[3] That power is, at least in part, unlawfully obtained from unpermitted gas turbines.

In June 2024, xAI announced that it was building the world's largest AI supercomputer, a data center now known as Colossus I at 3231 Paul R. Lowry Road in Memphis, Tennessee, beside the historically Black community of Boxtown.[4] Within a few months, members of the public uncovered that xAI was powering Colossus I with 35 unpermitted turbines. Over the course of the next year, neighbors and community groups in the greater Memphis area raised concerns about the turbines' harmful emissions, as well as the lack of transparency and accountability from xAI and regulators. NAACP and its members, among groups such as Young, Gifted, and Green, Memphis Community Against Pollution, Protect Our Aquifer, and others, held and attended numerous large public meetings and town hall events, wrote hundreds of letters and public comments, and repeatedly called for action to stop the operation of the unpermitted turbines and advocated for broader reduction in harmful pollution in southwest Memphis—an area long over-burdened by industrial emitters. Despite this advocacy, xAI continued to operate, so on June 17, 2025, the NAACP sent a Notice of Intent to sue xAI for its past and ongoing violations of the Clean Air Act at the Colossus I site. By the end of the summer of 2025, both permitted turbines and the Tennessee Valley Authority provided power for Colossus I.

In the midst of community resistance for Colossus I's operations, in March 2025, xAI acquired property to build a second data center—Colossus II—at 5420 Tulane Road in Whitehaven, Tennessee.[5] Soon thereafter, xAI's senior manager for infrastructure explained that

---

[2] Brian Butnz, *How xAI turned a factory shell into an AI 'Colossus' to power Grok 3 and beyond*, R&D WORLD (Feb. 18, 2025), https://www.rdworldonline.com/how-xai-turned-a-factory-shell-into-an-ai-colossus-to-power-grok-3-and-beyond/ [https://perma.cc/R62X-XEZC]; Elon Musk (@elonmusk), X (Jan. 17, 2026) https://x.com/elonmusk/status/2012500968571637891 [https://perma.cc/CB7S-Z9VW] (posting "The Colossus 2 supercomputer for @Grok is now operational. First Gigawatt training cluster in the world. Upgrades to 1.5GW in April").

[3] *Data Centers and Servers,* U.S. DEP'T. OF ENERGY (last visited Feb. 8, 2026), https://www.energy.gov/eere/buildings/data-centers-and-servers [https://perma.cc/ZA2K-NQA7]; Bhargs Srivathsan et al., *AI Power: Expanding Data Center Capacity to Meet Growing Demand*, MCKINSEY & CO. (Oct. 29, 2024), https://www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/ai-power-expanding-data-center-capacity-to-meet-growing-demand [https://perma.cc/JVS2-VBU6].

[4] *xAI Marks Its Spot In Memphis,* GREATER MEMPHIS CHAMBER (June 5, 2024), https://memphischamber.com/economic-development/xai/ [https://perma.cc/6LZX-LPSP].

[5] Neil Strebig, *Elon Musk's xAI Acquires Southwest Memphis Property, Plans for Further Expansion*, MEMPHIS COM. APPEAL (Mar. 7, 2025), https://www.commercialappeal.com/story/money/business/development/2025/03/07/elon-musk-xai-supercomputer-memphis-tn/81965304007/?gnt-cfr=1&gca-cat=p&gca-uir=true&gca-epti=z116335p119650c119650d00----v116335b0041xxd004165&gca-ft=134&gca-ds=sophi [https://perma.cc/LC8V-CUN8]. At the time, xAI had not disclosed how it planned to power Colossus II, but soon thereafter, Memphis Light, Gas, and Water stated that it had discussed with xAI a range of grid power options for the Tulane Road facility for up to 1.1 GW of power, although no final request had been submitted or was under consideration at that time. *MLGW is providing this update to the public regarding utility support for xAI*, MEMPHIS LIGHT, GAS & WATER (May 5, 2025),

xAI would be "copying and pasting" what it did at Colossus I, indicating the company would again rely on unpermitted turbines.[6]

MZX Tech LLC acquired 2875 Stanton Road S. in Southaven, Mississippi in July 2025. During the summer of 2025, xAI met with Mississippi Department of Environmental Quality ("MDEQ") to discuss xAI's plans for building a 1.2 GW simple-cycle combustion turbine power plant located at that site. Approximately 39 percent of the Southaven population is Black.[7]

To provide power to Colossus II in the interim, before xAI had a permit for that future power plant, xAI decided to "use portable gas-fired combustion turbines" at the Stanton Road site in Southaven, Mississippi.[8] While xAI recognized pre-construction permits would be required for "the permanent emission units comprising the facility," it made plans to bring "temporary turbines on site to be used prior to receiving the air permit."[9] In a July 25, 2025 email to MDEQ, xAI claimed that, in its view, this strategy was "allowed."[10]

On July 29, 2025, MDEQ responded to xAI, agreeing with xAI's legal conclusion that the turbines were "exempt" from permitting requirements, subject to certain conditions.[11] MDEQ's response was contingent upon two criteria: "the referenced turbines will be [1] 'mobile' as each will remain affixed to a portable unit (i.e., a flatbed trailer) and [2] 'temporary' as it is intended for each to remain on-site (2875 Stanton Road South; Southaven, MS) for less than twelve (12) months."[12] Citing the existing air quality problems in DeSoto County, MDEQ "implore[d]" xAI to operate the turbines "in a manner that minimizes the emissions of nitrogen oxides (NOx) and

---

https://www.mlgw.com/images/content/files/pdf/new/5-5-25%20xAI%20Update.pdf [https://perma.cc/JHS2-96YD].

[6] Neil Strebig, *xAI offical updates Colossus 2 plans in Memphis, but not how site will be powered*, MEMPHIS COM. APPEAL (July 15, 2025) [https://perma.cc/G8FV-PSPY].

[7] *QuickFacts Southaven City, Mississippi*, U.S CENSUS BUREAU, https://www.census.gov/quickfacts/fact/table/southavencitymississippi/INC110224 [https://perma.cc/T2Z6-Y27D] (last visited Feb. 12, 2026)

[8] Email from Brent Mayo, xAI, to Chris Wells & Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Permit Follow Up (July 25, 2025) (on file with author). Correspondence to or from Miss. Dep't Env't Quality that is referenced in this notice letter was obtained through public records requests.

[9] *Id.*

[10] *Id.*

[11] Letter from Jaricus Whitlock, Chief, Air Div., MISS. DEP'T OF ENV'T QUALITY, to Brent Mayo, Vice President of Operations, xAI, RE: Determination on Portable Gas-Fired Combustion Turbines (July 29, 2025) (on file with author).

[12] *Id.* In support, MDEQ cited 11 Mississippi Administrative Code Part 2, Chapter 2, Rule 2.13.D. *Id.*

particulate matter less than 2.5 microns in diameter (PM2.5)."[13] xAI promptly began installing and operating turbines at the Stanton Road site to provide power to Colossus II.[14]

Continuing to expand its data center operations in the area, in December 2025, xAI announced plans to construct and operate yet another data center—Colossus III—at 2400 Stateline Rd W., Southaven, Mississippi. This data center will bring xAI's Memphis-area power demands to nearly 2 GW—approximately the output of the Hoover Dam.[15] The public has yet to learn details on how xAI will power Colossus III.

B. xAI's facility in Southaven, Mississippi

At MDEQ's request, xAI has been providing the agency with information about the turbines it is using at the Stanton Road site in Southaven, Mississippi.[16] Although xAI first notified MDEQ that it was preparing to bring turbines on the Colossus II power station site in Southaven in July of 2025, it did not include any details about the number, make and model, generating capacity, or potential air emissions of the turbines; xAI described them only as "portable gas-fired combustion turbines."[17]

Correspondence from August and September shows that xAI kept increasing the number of turbines it planned to have on-site. By early August 2025, according to xAI's consultant, xAI had installed three SMT-130s on the site.[18] xAI's consultant told MDEQ that the plan was to eventually increase to six SMT-130s and ten TM2500s on the site.[19] By September 6, 2025, xAI's plan grew to encompass 17 total turbines (10 TM2500s and 7 SMT-130s), and xAI's consultant reported that selective catalytic reduction ("SCR") system construction was complete on 6 of the

---

[13] *Id.*

[14] *See* Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Additional Information - Portable Turbines (Nov. 25, 2025) (on file with author) (reflecting the turbines being brought to the site starting August 1, 2025).

[15] Elon Musk (@elonmusk), X (Dec. 30, 2025), https://x.com/elonmusk/status/2006108047609930069 [https://perma.cc/3DFT-Q85H] (posting "xAI has bought a third building called MACROHARDRR. Will take @xAI training compute to almost 2GW"); *Hoover Dam*, ENCYCLOPEDIA BRITANNICA, https://www.britannica.com/topic/Hoover-Dam [https://perma.cc/NX9R-9B7V] (last visited Feb. 9, 2026).

[16] Email from Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, to Shannon Lynn, Trinity Consultants, RE: Request for Update - Portable Turbines (Oct. 30, 2025) (on file with the author); Email from Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, to Shannon Lynn, Trinity Consultants, RE: Portable Turbine Information (Aug. 14, 2025) on file with the author); Email from Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, to Shannon Lynn, Trinity Consultants, RE: Portable Turbine Information (Sept. 8, 2025) (on file with the author).

[17] Email from Brent Mayo, xAI, to Chris Wells & Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Permit Follow Up (July 25, 2025) (on file with author).

[18] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Portable Turbine Information (Aug. 18, 2025) (on file with author).

[19] *Id*.

7 SMT-130 units.[20] A few days later, xAI's consultant reported that an additional turbine, an M35, would be brought on-site, increasing the total to 18 turbines (10 TM2500s, 7 SMT-130s, and 1 M35) with a combined total output of 400.5 MW.[21] On November 4, 2025, the consultant informed MDEQ, "[a]ll Solar units are operating with SCR and oxidation catalyst. All TM2500's are operating with demin [demineralized] water."[22] In other words, only the SMT-130s were using selective catalytic reduction to control for smog-forming pollution; the larger TM2500 and M35 turbines were not.

Aerial photographs confirm that there were 18 gas turbines on-site as of October 31, 2025.

Figure 1: Aerial view of xAI's Stanton Road S. facility (Oct. 31, 2025; Steve Jones/SouthWings).

[20] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Portable Turbine Information (Sept. 6, 2025) (on file with author).

[21] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Portable Turbine Information (Sept. 10, 2025) (on file with author). In later correspondence, xAI's consultant provided MDEQ with different generating capacity information for the turbines, indicating that the first 18 turbines on-site had a combined generating capacity of at least 354 MW. Unit Type and Generating Capacity derived from Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Additional Information - Portable Turbines (Nov. 4, 2025) (on file with author).

[22] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Update - Portable Turbines (Nov. 5, 2025) (on file with author).

Thermal imaging captured on October 31, 2025, demonstrates that at least 9 of those 18 turbines were operating at the time, including five of the SMT-130 turbines (circular smoke stacks) and four of the TM2500 turbines (rectangular smoke stacks).

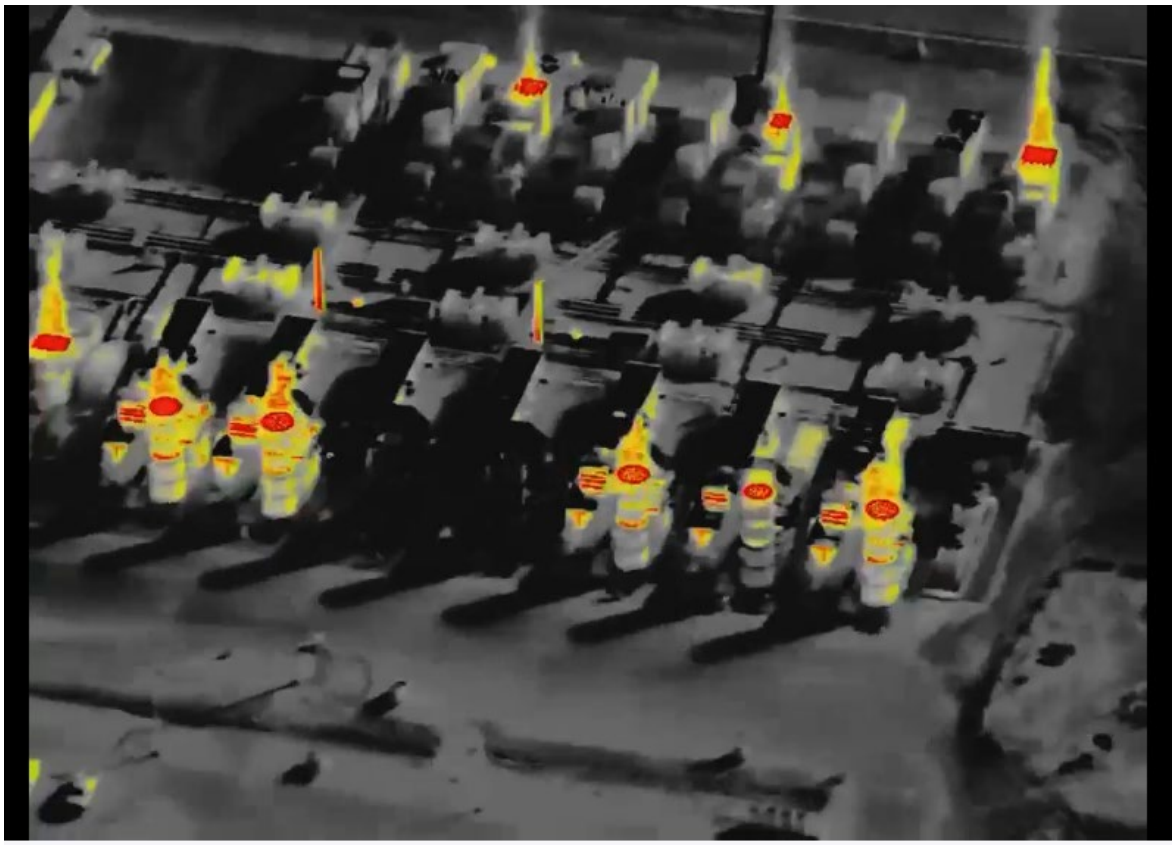


Figure 2: Thermal camera image of xAI's Stanton Road S. facility (Oct. 31, 2025; Steve Jones/SouthWings).

In December 2025, xAI's consultant informed MDEQ that nine additional turbines would be brought on-site by December 18, bringing the total number turbines to 27.[23] As of December 11, 2025, xAI's consultant represented that the first 18 turbines were operational, and that the additional nine turbines would not operate until the SMT 130s were outfitted with SCR and the TM 2500s were outfitted with water injection.[24]

[23] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Updated count (Dec. 11, 2025) (on file with author).

[24] *Id.*

Satellite photographs from February of 2026 confirm that there were at least 27 turbines on-site.

Figure 3: Aerial image of xAI's Stanton Road S. facility (lower left quadrant), the Colossus II Data Center (top center building with "MACROHARD" on its roof), and the Colossus III Data Center (center, south adjacent to Colossus II) (Feb. 9, 2026).

Figure 4: Close-up aerial image of xAI's Stanton Road S. facility showing 27 turbines (Feb. 9, 2026).

Based on representations by xAI's consultant to MDEQ about the 27 turbines on-site, and information and belief, these turbines have a combined generating capacity of at least 495 MW, and, specifically, the 27 turbines include: 14 SMT-130s, 1 M35, 4 Gen 6 TM2500s, 5 Gen 7 TM2500s, and 3 Gen8 TM2500s.[25] Each of these turbines has a heat input greater than 10 MMBtu/h.[26] Collectively, these 27 turbines have the potential to emit multiples of 250 tons of

[25] Turbine type and generating capacity information is derived from correspondence with MDEQ and assumes that xAI's consultant (Trinity Consultants) was accurate in its representations. *See, e.g.*, Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Updated Count (Dec. 11, 2025) (on file with author); Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Update - Portable Turbines (Nov. 4, 2025) (on file with author). However, earlier, Trinity Consultants provided higher generating capacity amounts for the first 18 turbines, for a total of 400.5 MW (16.5 MW per SMT130, 25 MW per TM2500, and 35 MW per M35). *See* Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Portable Turbine Information (Sept. 10, 2025) (on file with author).

[26] *See* Exhibit A (collected manufacturer specification sheets).

NOx[27] per year and at least 10 tons of formaldehyde[28] per year, in addition to numerous other regulated pollutants.

Neither xAI nor MDEQ have made any public announcements or statements concerning the existence of this growing and unregulated ad hoc power plant or its emissions.[29] Nor did xAI or MDEQ seek public input on the existence of this colossal power plant now operating in their community. Ignoring the concerns expressed by community members and groups who opposed Colossus I, xAI has again kept entirely in the dark the families who will be most harmed by the turbines' daily operation.

C. xAI's Turbines emit harmful pollutants

The turbines at xAI's Stanton Road Facility in Southaven, Mississippi emit a variety of

---

[27] That the turbines have the potential to emit significantly more than 250 tons of NOx per year is based on consideration of the following information: NOx emissions rates provided by xAI's consultant to MDEQ (and with review of emissions rates in EPA's AP-42); turbine information provided by xAI's consultant to MDEQ; and turbine manufacturer specifications for the turbine makes and models identified by xAI's consultant in communications with MDEQ. *See, e.g.*, Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Update - Portable Turbines (Nov. 5, 2025) (on file with author) (representing NOx emissions rates as 25 ppm for the TM2500s, and emissions rates analogous to xAI's air permit application for "Solar units" (i.e., SMT 130s)); *see also* MZX Tech LLC PSD Permit Application at 5-1 (July 2025) (reflecting a NOx rate for Solar turbines utilizing SCR of 2 ppm); Exhibit A (collected manufacturer specification sheets); *see also AP 42, Fifth Edition, Volume I Chapter 1: External Combustion Sources: Natural Gas Combustion*, ENV'T PROT. AGENCY, https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-1-external-1 [https://perma.cc/WQ6U-NUCK] (last updated Aug. 28, 2025). Given that the turbines are not subject to any air permit or requisite emissions monitoring, there exists no publicly available documentation to confirm that the emission rates represented by xAI's consultant reflect actual emissions; actual emission rates could be higher. Additionally, to the extent that some of the turbines are models that the manufacturer no longer sells (on information and belief, the Gen 6 and Gen 7 TM2500s, for example), these turbines' actual emissions may not reflect the emission rates provided in the manufacturer's specifications.

[28] This estimate is derived from the formaldehyde emission rate available in EPA's AP-42, with consideration of information from xAI's consultant to MDEQ about the turbines' make, model, and emission controls. *See AP 42, Fifth Edition, Volume I Chapter 1: External Combustion Sources: Natural Gas Combustion*, ENV'T PROT. AGENCY, https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-1-external-1 [https://perma.cc/WQ6U-NUCK] (last updated Aug. 28, 2025). Notably, for the turbine facility permit at Colossus I, xAI-affiliate CTC used the AP-42 emission factor to calculate formaldehyde emissions of 9.5 tpy from a total of 15 turbines. Here, in comparison, the site has 14 turbines of the same make and model as Colossus I, as well as 13 additional, larger, turbines. Trinity Consultants, CTC Property LLC, Synthetic Minor Operating Permit Application at 1-1 (Jan. 2025) (on file with author).

[29] While a draft major source permit for a future power plant at the same Stanton Road location was published for comment on January 16, 2026, that permit does not apply to the unpermitted turbines currently operating at this site. *See EPD Permits at Public Notice*, MISS. DEP'T OF ENV'T QUALITY, https://www.mdeq.ms.gov/ensearch/epd-permits-at-public-notice/ [https://perma.cc/QD2A-FSTP] (last visited Feb. 9, 2026).

pollutants known to cause human health impacts. Those pollutants include nitrogen oxides ("NOx"), a harmful pollutant on its own and a precursor pollutant to particulate matter and ozone, as well as fine particulate matter, sulfur dioxide, volatile organic compounds, and toxic and carcinogenic chemicals like formaldehyde.

Nitrogen dioxide ("NO_2"), a significant component of the NOx emitted by turbines, can irritate airways in the human respiratory system and can lead, in the short term, to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms.[30] Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections.[31]

NOx reacts with other chemicals, including volatile organic compounds, in the air to form both particulate matter and ozone, and it is a primary cause of smog. Among other harmful health effects, smog irritates people's lungs and causes asthma attacks.[32] Particulate matter exposure through inhalation can impact human lungs and hearts. Exposure to such particle pollution has been linked to premature death in people with heart or lung disease; nonfatal heart attacks; aggravated asthma; decreased lung function; and increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing.[33]

Formaldehyde can cause irritation to human respiratory tracts and eyes and has been characterized as a human carcinogen by the Department of Health and Human Services.[34]

xAI's emissions contribute to already high levels of ozone in the surrounding area. In 2024, both Shelby County and DeSoto County received an "F" for their ozone pollution from the American Lung Association.[35] DeSoto County was the only county in Mississippi to receive an

---

[30] *Basic Information about NO2*, ENV'T PROT. AGENCY (July 10, 2025), https://www.epa.gov/no2-pollution/basic-information-about-no2 [https://perma.cc/46RV-G6WQ].

[31] *Id*.

[32] *Health Effects of Ozone Pollution*, ENV'T PROT. AGENCY, https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution [https://perma.cc/4P3V-Q7BE] (last updated Mar. 13, 2025).

[33] *Health and Env't Effects of Particulate Matter (PM)*, ENV'T PROT. AGENCY, https://www.epa.gov/pm-pollution/health-and-environmental-effects-particulate-matter-pm#:~:text=Particulate%20matter%20(PM)%20can%20have%20both%20health,(haze)%20in%20parts%20of%20the%20United%20States [https://perma.cc/S5EY-5DXN] (last updated May 23, 2025).

[34] *Public Health Statement for Formaldehyde,* AGENCY FOR TOXIC SUBSTANCES DISEASE REGISTRY (May 17, 2021), https://wwwn.cdc.gov/TSP/PHS/PHS.aspx?phsid=218&toxid=39 [https://perma.cc/N4MT-4VN7].

[35] *Tennessee: Shelby*, AM. LUNG ASS'N (2025), https://www.lung.org/research/sota/city-rankings/states/tennessee/shelby [https://perma.cc/4UF2-MP8Q]; *Mississippi: Desoto*, AM. LUNG ASS'N, (2025), https://www.lung.org/research/sota/city-rankings/states/mississippi/desoto [https://perma.cc/8AW6-W9ZM]. Also, Memphis was deemed an asthma capital of the nation by the Asthma and Allergy Foundation of America due to high rates of emergency room visits and deaths from asthma. ASTHMA & ALLERGY FOUND. OF AM., *2024 Asthma Capitals, The Most Challenging Places to*

"F."[36] The number of high ozone days in DeSoto County has been increasing since 2019.[37]

xAI's unpermitted turbines are likely one of the largest industrial sources of NOx in the 11-county Memphis Metropolitan Statistical Area ("MSA"), which includes Desoto County.[38] For example, EPA's National Emissions Inventory lists the largest industrial emitter in the Memphis MSA as the Dupont Chemical plant in Shelby County, TN, which emitted 743 tons of NOx in the most recent reporting year;[39] meanwhile, based on available information, including the representations of xAI's consultant, xAI's turbines in Southaven likely will emit well over double that amount of NOx each year.

II. APPLICABLE CLEAN AIR ACT REQUIREMENTS

The Clean Air Act is a broad remedial statute designed to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and productive capacity of its population."[40] In general, the Act regulates emissions both by type of source (i.e., whether the source is "stationary" or "mobile") and by type of air pollutant (i.e., whether the emissions are "criteria pollutants" or "hazardous air pollutants").

The Act requires the Environmental Protection Agency ("EPA") to regulate emissions of air pollutants that "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare."[41] These are referred to as "criteria pollutants," and include

---

Live with Asthma, 6–7, 12–13 (2024), https://aafa.org/wp-content/uploads/2024/09/aafa-2024-asthma-capitals-report.pdf [https://perma.cc/CK5S-54PH].

[36] *Report Card: Mississippi*, AM. LUNG ASS'N (2025), https://www.lung.org/research/sota/city-rankings/states/mississippi [https://perma.cc/J482-BC2K].

[37] *Mississippi: Desoto*, AM. LUNG ASS'N (2025), https://www.lung.org/research/sota/city-rankings/states/mississippi/desoto [https://perma.cc/7QCB-6JFR]. For example, the past several years of ambient air monitoring data in DeSoto County, where Southaven is located, and Memphis, which is the nearest urban area, show that concentrations of ground-level ozone—also known as smog—exceed the applicable federal air quality standard for ozone (the National Ambient Air Quality Standards, or "NAAQS"). *See* Katherine Burgess, *SELC petitions EPA to say Memphis area in violation of ozone standards*, MLK50: JUSTICE THROUGH JOURNALISM (June 6, 2025), https://mlk50.com/2025/06/06/selc-petitions-epa-to-say-memphis-area-in-violation-of-ozone-standards/[https://perma.cc/E8US-GM7S].

[38] *2020 National Emissions Inventory (NEI) Data*, ENV'T PROT. AGENCY (2020), https://www.epa.gov/air-emissions-inventories/2020-national-emissions-inventory-nei-data [https://perma.cc/N6MM-NN6X]. According to this most recent National Emissions Inventory, the largest source of NOx in the 11 counties that make up the Memphis MSA was the Memphis International Airport (1,077 tons of NOx), followed by the Draslovka (also known as Dupont) chemical plant (743 tons of NOx), which is the largest industrial emitter in the MSA, as well as the Valero refinery (342 tons of NOx), and the TVA Allen power plant (230 tons of NOx). Even with pollution controls, xAI's 15 permitted turbines at Colossus 1 are permitted to emit 87.14 tons of NOx.

[39] *Id.*

[40] 42 U.S.C. § 7401(b)(1).

[41] *Id.* §§ 7408, 7409.

NOx, NO_2, fine particulate matter, and ozone.[42] EPA sets National Ambient Air Quality Standards ("NAAQS") to limit concentrations of criteria pollutants to levels "requisite to protect the public health."[43] Each state, in turn, must develop a State Implementation Plan ("SIP") setting forth how the NAAQS will be achieved and maintained within the state.[44] SIPs must be submitted to and approved by the EPA.[45] Through SIPs, state agencies are responsible for ensuring compliance with federal air quality standards.[46] Once approved by EPA, a SIP is federally enforceable under the Clean Air Act.[47]

EPA has approved the Mississippi SIP,[48] and the EPA-approved sections of the SIP and the Clean Air Act are the federally enforceable law governing air pollution sources in the state.

Separately, for hazardous air pollutants, the Clean Air Act requires EPA to issue emissions standards for categories of stationary sources and a list of 188 air pollutants determined by Congress and EPA to be particularly harmful to human health.[49] The emissions standards set by EPA are federally enforceable.

Generally, with few exceptions not relevant here, new stationary sources of criteria and hazardous air pollutants in Mississippi must obtain permits prior to construction and operation. These permits are meant to ensure that emissions from new sources do not impair air quality, cause or contribute to NAAQS violations, or otherwise harm the public and the environment. In addition, certain source categories are subject to performance and emissions standards set by federal law.

Combustion turbines, like the gas turbines xAI uses in Southaven to power its data center, are stationary sources. In addition to the relevant permitting requirements, they are subject to stationary source emission and performance standards under the Clean Air Act for controlling criteria pollutants and hazardous air pollutants.

---

[42] 40 C.F.R. §§ 50 et. seq.

[43] 42 U.S.C. § 7409(b)(1).

[44] 42 U.S.C. § 7407(a). In some areas, not at issue here, the local jurisdiction adopts and submits to EPA a Local Implementation Plan rather than a SIP.

[45] *See id.* § 7410.

[46] *Id.* §§ 7410(a)(2)(A), 7502(c)(6). In this way, the Clean Air Act operates as a "cooperative federalism" scheme; EPA sets standards for pollutants, states implement those standards. *Sierra Club v. La. Dep't of Env't Quality*, 100 F.4th 555 (5th Cir. 2024).

[47] *See* 42 U.S.C. §§ 7413, 7604.

[48] *See* 40 C.F.R. § 52.1270(c) – Table 1. This table identifies the effective date for each EPA approved provision of the Mississippi SIP within the Mississippi Administrative Code - and cites the most recent Federal Register Notice for EPA's approval. *See*, *e.g.*, 83 Fed. Reg. 50014 (Oct. 4, 2018); 85 Fed. Reg. 10070 (Feb. 21, 2020); and at 89 Fed. Reg. 86751 (Oct. 31, 2024). Unless otherwise noted, all citations below to the Mississippi Annotated Code are to EPA-approved SIP provisions.

[49] 42 U.S.C. § 7412.

A. Preconstruction and operating permits for stationary sources

Mississippi's EPA-approved SIP requires that any new stationary sources of air pollution, like the gas turbines here, obtain both a preconstruction permit and an operating permit. "Stationary source" is defined as "any building, structure, facility, or installation which emits or may emit a regulated air pollutant."[50] This includes both major and minor sources.

Rule 2.1 D of the Mississippi SIP requires new or modified stationary sources to have a permit to construct before beginning construction.[51] Applicants for permits to construct must specify in their application the rate of air emission reasonably anticipated from operation of their proposed source.[52] That rate—or a more stringent emission limit set by MDEQ—then becomes the limitation on the source's operation.[53]

Once the construction is complete, the permittee must provide the Mississippi Permit Board with certification of construction verifying it "was performed in accordance with the approved plans and specifications on file with the Permit Board" before it may begin operation.[54] Rule 2.5 D also requires new stationary sources to apply for a State Permit to Operate or a Title V permit within 12 months of beginning operations.[55] After submitting a certificate of construction, but prior to applying for a State Permit to Operate or Title V permit, the permit to construct functions as the permit to operate.[56]

Finally, the SIP makes clear that the eventual issuance of any permit "does not release the permittee from liability for constructing or operating air emissions equipment in violation of any applicable statute, rule, or regulation of state or federal environmental authorities."[57]

---

[50] 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 C (28) (2013).

[51] 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 D (2) (2013). Inapplicable here, the EPA-approved Mississippi SIP provides for pre-permit construction for some sources according to a proscribed procedure that includes public notice, a ten-day public comment period, proposed emission limits, process description, and equipment lists, among other things. 11 Pt. 2 Ch. 2 Miss. Code R. 2.15 B (2013). The EPA-approved SIP also provides for some categorical exclusions to the requirement for construction and operation permits—none of which are applicable here, as explained further below. 11 Pt. 2 Ch. 2 Miss. Code R. 2.13 D (2013).

[52] 11 Pt. 2 Ch. 2 Miss. Code R. 2.2 B (8) (2013).

[53] 11 Pt. 2 Ch. 2 Miss. Code R. 2.2 B (10) (2013).

[54] 11 Pt. 2 Ch. 2 Miss. Code R 2.5 D (1) (2013).

[55] 11 Pt. 2 Ch. 2 Miss. Code R 2.5 D (5) (2013). A permit applicant may begin operations under its permit to construct, which contains emissions limits and control technology requirements, until the application to operate is due. *Id* at 2.5 D (4). However, a new stationary source *cannot* begin operation under their permit to construct until the permittee provides certification of construction. *Id.* at 2.5 D (3).

[56] 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (4) (2013); *see also id.,* Rule 2.5 D (6) ("Upon submittal of a timely and complete application for issuance . . . of a Title V permit, . . . the applicant may continue to operate under the terms and conditions of the permit to construct.").

[57] 11 Pt. 2 Ch. 2 Miss. Code R. 2.2 B (7) (2013).

B. New Source Review program and permitting for major sources of air pollution

A key part of the Clean Air Act—and Mississippi's SIP—is the New Source Review program, which generally prohibits the building or expansion of a major source of air pollution, like the gas turbines here, without first obtaining a permit and applying the best possible pollution controls.[58] New Source Review has two sets of provisions, and which one applies depends on whether an area is in attainment with federal air quality standards (i.e., the NAAQS). The program for attainment areas, like DeSoto County, is called Prevention of Significant Deterioration ("PSD").[59] Key purposes of the PSD program are to "protect public health" and to assure that any increase in air pollution, and a state's decision to permit it, "is made only after careful evaluation of all the consequences of such a decision."[60] The PSD program is part of the Mississippi SIP.[61]

The PSD program prohibits the construction of a "major emitting facility" unless "a permit has been issued for such proposed facility."[62] A "major" source is one that "emits, or has the potential to emit" regulated pollutants, including NOx, at a rate equal to or greater than 250 tons per year.[63] No permit may be issued unless the owner or operator of the facility can demonstrate through air modeling that its construction or operation will not cause or contribute to air pollution in excess of the NAAQS.[64] EPA regulations implementing the PSD program also require permit applicants to provide a "detailed description" of "what system of continuous emission reduction is planned for the source or modification."[65] Information about applications for permits to construct a new major stationary source must be made available to the public for review and comment.[66]

---

[58] *See* 42 U.S.C. § 7475; *see also* 42 U.S.C. § 7410 (providing that states implement New Source Review through their SIPs).

[59] *See generally* 42 U.S.C. 7470 et seq. While Mississippi is currently designated as in attainment for all criteria pollutants, recent monitoring shows that DeSoto County has recorded ozone levels slightly above the NAAQS. *See* MISS. DEP'T OF ENV'T QUALITY, *State of Mississippi Air Quality Data Summary for Calendar Year 2024*, https://www.mdeq.ms.gov/wp-content/uploads/2025/03/2024-Air-Quality-Data-Summary-1.pdf [https://perma.cc/J5MD-LWSF].

[60] 42 U.S.C. § 7470(1), (5).

[61] 11 Pt. 2 Ch. 5 Miss. Code R. 5.2 (2024) (incorporating and adopting relevant provisions of 40 C.F.R. § 52.21). The Mississippi SIP adopts 40 C.F.R. § 52.21. 40 C.F.R. § 52.21, in turn, is the "Prevention of significant deterioration of air quality" rule.

[62] 42 U.S.C. § 7475(a)(1); 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 D (2) (2013); 11 Pt. 2 Ch. 5 Miss. Code R. 5.2 (2024).

[63] 40 C.F.R. § 51.166(b)(1)(i); *see also* 42 U.S.C. § 7479(1); 11 Pt. 2 Ch. 5 Miss. Code R. 5.2 (2024). A major source for NOx "shall be considered major for ozone," as well. 40 C.F.R. § 51.166(b)(1)(ii). While the 250 tons per year threshold is relevant here, there are other stationary sources subject to a 100 tons per year threshold. 40 C.F.R. § 51.166(b)(1)(i).

[64] 42 U.S.C. § 7475(a)(3); *see also* 40 C.F.R. § 51.166(k)(1).

[65] 40 C.F.R. § 51.166(n)(2)(iii).

[66] 11 Pt. 2 Ch. 2 Miss. Code R. 2.4 A, C (2013).

Critically, PSD permits must impose emission limits that reflect the maximum degree of reduction achievable through the use of stringent pollution controls on an ongoing basis. This standard is known as Best Available Control Technology ("BACT").[67] BACT is defined as "an emission limitation based on the maximum degree of reduction of each pollutant . . . which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility."[68] Such emission limitations remain in place "on a continuous basis" during the operation of a source.[69] Thus, after construction, a permitted facility must continue to comply with the emissions limits established as BACT.

C. Regulations that apply to major sources of hazardous air pollutants

Hazardous air pollutants (or "HAPs") are the approximately 190 toxic air pollutants, including formaldehyde, that Congress specifically identified in Section 112 of the Clean Air Act.[70] For each pollutant, Section 112 requires EPA to identify the sources of—and set emissions standards for—the pollutants.[71] The list of hazardous air pollutants incudes known carcinogens as well as substances causing serious non-cancer health effects to bodily organs and systems, as well as to fetal development.[72]

As with New Source Review for criteria pollutants, Section 112 of the Act sets a threshold of actual or potential hazardous air pollutant emissions for a source to be identified as a "major" source. A major source is one that emits or has the potential to emit at least 10 tons of any single hazardous air pollutant per year or 25 tons of total aggregate hazardous air pollutant emissions per year.[73] Most major sources are subject to EPA standards known as National Emission Standards for Hazardous Air Pollutants ("NESHAPs"). Each NESHAP is specific to a particular kind of air pollution source and establishes limits for each listed hazardous air pollutant emitted by the relevant kind of source, as well as related monitoring, recordkeeping, and reporting requirements.[74] Limits are based on the "maximum degree of reduction in emissions" (i.e.,

---

[67] 42 U.S.C. § 7475(a)(4) (prohibiting construction of a major emitting facility unless it is subject to BACT, among other requirements); *see also* 40 C.F.R. § 51.166(b)(12), (j)(2).

[68] 42 U.S.C. § 7479(3).

[69] 42 U.S.C. § 7602(k) (defining "emission limitation"). *See also Nat'l Parks Conservation Ass'n, Inc. v. Tenn. Valley Ass'n*, 480 F.3d 410, 419 (6th Cir. 2007).

[70] 42 U.S.C. §§ 7412(a)(6), (b).

[71] *Id.*

[72] *La. Env't Action Network v. Env't Prot. Agency*, 955 F.3d 1088, 1092 (D.C. Cir. 2020).

[73] 42 U.S.C. § 7412(a)(1); *see also* 40 C.F.R. § 63.2 ("Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants[.]").

[74] 42 U.S.C. § 7412(d)(1)-(3); *see also La. Env't Action Network v. Env't Prot. Agency*, 955 F.3d at 1092. Mississippi's SIP and Mississippi's "Air Toxics Regulations" require major sources of hazardous air pollutants to obtain construction and operations permits. *See* 11 Pt. 2. Ch. 8 Miss. Code R. 8.1 B (1) (2013); *see also* 11 Pt. 2 Ch. 2 Miss. Code R. 2.13 E (2013) (excluding major sources of hazardous air pollutants

Maximum Achievable Control Technology or "MACT") that EPA has determined are achievable for that type of source.[75]

Under Section 112 of the Act, "no person may construct or reconstruct any major source of hazardous air pollutants unless the [EPA] Administrator (or the State) determines that the maximum achievable control technology emissions limitation . . . for new sources will be met."[76] Likewise, a source must submit an "application for approval of construction" prior to commencing construction of a new major source of hazardous air pollutants.[77] Sources may also satisfy the foregoing requirements by obtaining state-level preconstruction approval if it is sufficiently similar to the federal requirements.[78]

EPA has identified stationary combustion turbines as a substantial source of hazardous air pollutants such as formaldehyde, toluene, benzene, and acetaldehyde, and it has promulgated a NESHAP—40 C.F.R. Part 63, Subpart YYYY—for these turbines.[79] Subpart YYYY defines stationary combustion turbines subject to the standard as such: "[s]tationary means that the combustion turbine is not self propelled or intended to be propelled while performing its function."[80] Subpart YYYY requires turbines to comply with a maximum achievable control technology emission limit for formaldehyde emissions,[81] to conduct initial and periodic emissions testing,[82] to continuously monitor operations,[83] to make various reports and notifications, and to undertake recordkeeping.[84]

---

from an exclusion to a permit to construct); 11 Pt. 2 Ch. 2 Miss. Code R. 2.15 B (9) (2013) (same). The Mississippi Air Toxics Regulations incorporate and adopt as enforceable regulations of Mississippi all NESHAPs. 11 Pt. 2. Ch. 8 Miss. Code R. 8.1 A (2013); *id.* at R. 8.1 B(a).

[75] 42 U.S.C. § 7412(d)(2).

[76] 42 U.S.C. § 7412(g)(2)(B); *see also* 40 C.F.R. § 63.5(b)(3)(i) ("[N]o person may, without obtaining written approval in advance from the [EPA] Administrator . . . [c]onstruct a new affected source that is major-emitting.").

[77] 40 C.F.R. § 63.5(d)(1)(i).

[78] 40 C.F.R. § 63.5(f).

[79] 40 C.F.R. §§ 63.6080–60.6175.

[80] 40 C.F.R. § 63.6175. An EPA spreadsheet listing stationary combustion turbines that are subject to Subpart YYYY from November 2025 includes TM 2500s, for example. *Updated List of Stationary Combustion Turbines Subject to the Stationary Combustion Turbine NESHAP – November 2025 (xlsx)*, ENV'T PROT. AGENCY, https://www.epa.gov/stationary-sources-air-pollution/stationary-combustion-turbines-national-emission-standards [https://perma.cc/8GKJ-EBAV] (last updated Nov. 20, 2025).

[81] 40 C.F.R. § 63.6100; Table 1 to Subpart YYYY. Subpart YYYY identifies the emission limitation for the concentration of formaldehyde to 91 ppbvd or less at O_2, *id*., which would require catalytic oxidation for compliance.

[82] 40 C.F.R. §§ 63.6110, 63.6115.

[83] 40 C.F.R. § 63.6125(a)–(b).

[84] 40 C.F.R. §§ 63.6145, 63.6150, 63.6155, 63.6160.

D. Gas turbines are subject to permitting and pollution control requirements, and no exemptions apply here

Combustion turbines, like these, are stationary sources subject both to permitting requirements and emission and performance standards. xAI's turbines are not exempt from these requirements. While MDEQ sent a letter to xAI agreeing with xAI's legal conclusion that it need not obtain a permit, that conclusion is wrong, as detailed below. Further, MDEQ lacks the power to simply give a company a free pass to pollute.[85]

None of the Mississippi SIP's categorical exclusions to the requirement for construction and operation permits apply here. Subsection D of Rule 2.13 includes fifteen exclusions, such as for "recreational heaters" and equipment used to prepare food for retail sale.[86] Critically, the Mississippi SIP does not identify a categorical exclusion based on duration, i.e., for "temporary" use.[87] Additionally, although one exclusion is for "[m]obile sources,"[88] in context, "mobile source" does not create an exemption for any stationary-source-on-wheels. The SIP does not define mobile sources, and under the Clean Air Act regulations governing the preparation of SIPs, the term "[m]obile sources" generally refers to motor vehicles, such as passenger cars, trucks, and motorcycles that are used on highways, as well as trains, airplanes, and construction equipment.[89] Thus, the exclusion for "mobile sources" denotes a type of emission source subject to its own regulatory regime under the Clean Air Act.

That gas turbines are distinct from mobile sources is further underscored by EPA subjecting gas turbines to a New Source Performance Standard ("NSPS") under Section 111 of the Act.[90] NSPS are federally enforceable, technology-based emission standards for controlling criteria pollutants that apply to stationary sources. Promulgated by EPA and applied by MDEQ, NSPS set the floor for emissions controls on certain types of sources.[91] EPA regulates NOx and sulfur dioxide emissions from stationary combustion turbines with a heat-input capacity greater than 10

---

[85] *See Ass'n to Protect Hammersley, Eld, & Totten Inlets v. Taylor Res., Inc.,* 299 F.3d 1007, 1011–12 (9th Cir. 2002); *United States v. S. Ind. Gas & Elec. Co.*, No. IP99-1692-CMF, 2002 WL 1760699, at *4 (S.D. Ind. July 26, 2002).

[86] 11 Pt. 2 Ch. 2 Miss. Code R. 2.13 D (2013).

[87] 11 Pt. 2 Ch. 6 Miss. Code R. 6.3 (2022), which is not part of the EPA-approved SIP, does set out standards for the permitting of "temporary" sources in the state–meaning that "temporary" sources as defined in the Administrative Code are actually not exempt from permitting generally. Any exemption based on temporary-ness would be in violation of MDEQ's own regulations.

[88] 11 Pt. 2 Ch. 2 Miss. Code R. 2.13 D (2013).

[89] Under the federal Clean Air Act, the "Control of Air Pollution from Mobile Sources" is governed by 40 C.F.R. §§ 85.501 – 85.2401 which applies generally to motor vehicles like cars, boats, and airplanes.

[90] *See generally* 42 U.S.C. § 7411.

[91] 11 Pt. 2 Ch. 1 Miss. Code R. 1.6 (2018). This rule, which is not part of the EPA-approved SIP, adopts the federal NSPS promulgated by EPA and requires compliance for all facilities subject to those standards, enforceable by MDEQ.

MMBtu/h under 40 C.F.R. Part 60, Subpart KKKK ("NSPS KKKK").[92] NSPS KKKK defines "stationary" in the context of gas turbines to mean "the combustion turbine is not self-propelled or intended to be propelled while performing its function. It may, however, be mounted on a vehicle for portability."[93] In other words, as with HAPs, unless the turbine is intended to be in motion while operating—such as a turbine on a plane—it is considered a stationary source of criteria pollutants even if it is portable.

Finally, while the Clean Air Act exempts "nonroad engines" from its definition of "stationary source," these turbines are not nonroad engines.[94] Any internal combustion engines that are subject to an NSPS do not qualify as nonroad engines under the Act's definition of nonroad engines.[95] Here, because the turbines have a heat-input capacity greater than 10 MMBtu/hr, they are subject to NSPS KKKK and are therefore subject to the Act's stationary source air permitting requirements.

III. VIOLATIONS OF THE CLEAN AIR ACT

A. Claim 1: xAI has constructed and operated, and continues to operate, a new stationary source in violation of Mississippi SIP Rules 2.1 D and 2.5 D and the Clean Air Act.

Under the Mississippi SIP, "any new stationary source or modification of a stationary source must have a permit to construct . . . before beginning construction," with some limited, inapplicable exceptions.[96] Even a stationary source that has been issued a permit to construct "cannot begin operation until certification of construction by the permittee."[97]

---

[92] 40 C.F.R. § 60.4305. NSPS KKKK regulates the turbines by requiring the "best system of emission reduction" for limiting NOx and identifying the pollution control technology and/or emission rate that the turbine must comply with, depending on its size, in terms of heat input, as well as whether it will be in the same location for more or less than 24 months. "Temporary" turbines are not exempt from NSPS KKKK; they are a subcategory with an emission limit. 40 C.F.R. Part 60, Subpart KKKK. NSPS KKKK also sets out testing, monitoring, recordkeeping, and reporting requirements.

[93] *Id.* Additionally, The EPA recently confirmed that stationary combustion turbines, even when mounted for portability, are subject to the NSPS and not nonroad engines. As the EPA says in the preamble to Rule KKKK, "The current definition of "nonroad engine" at 40 C.F.R. 1068.30 excludes engines that are subject to an NSPS. All combustion turbines meeting the applicability criteria of the NSPS for combustion turbines are subject to those NSPS standards (including portable turbines) and thus have been excluded from the definition of nonroad engines." Prepublication Rule KKKK at 69.

[94] *See* 42 U.S.C. § 7602(z).

[95] 42 U.S.C. § 7550(10) (defining "nonroad engine"); *see also* 40 C.F.R. § 1068.30 (excluding from the definition of "nonroad engine" an engine that meets "any of [three] criteria," one of which is that the engine is regulated "by a federal New Source Performance Standard").

[96] 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 D (2) (2013). There are limited exemptions, none of which apply here.

[97] 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (3) (2013).

All major and synthetic minor sources in Mississippi must obtain either a State Permit to Operate or Title V permit.[98] The Mississippi SIP requires sources to obtain operating permits within 12 months of submitting a certificate of construction, or at any earlier time as stated in the permit to construct.[99] At that time, the source may continue operations under both "the terms and conditions of the permit to construct and in compliance with the submitted application until the Permit Board issues, modifies, or denies the Permit to Operate."[100] In short, all stationary sources must obtain a permit to construct prior to beginning construction, and that permit stays in effect until a permit to operate is issued.

The turbines here are a new stationary source. Construction began on or about August 1, 2025, and on information and belief, xAI began operating them soon thereafter. xAI did not obtain a permit to construct prior to either of those dates, and it still has not obtained a permit to construct. xAI has not submitted, nor obtained, a certification of construction. And xAI has not obtained an operating permit for the turbines currently on-site.

The construction and operation of the turbine facility without a state construction or operating permit violates the relevant Mississippi regulations as incorporated into the SIP. These violations constitute violations of the Clean Air Act. Each day that xAI constructs or operates without a permit—from the start of construction forward—constitutes a separate violation, subjecting xAI to a civil penalty per day, per violation.

B. Claim 2: xAI has constructed and operated, and continues to operate, a major emitting facility without a Prevention of Significant Deterioration permit or Best Available Control Technology in violation of Mississippi SIP Rule 5.2 and the Clean Air Act.

Under the Clean Air Act, and as incorporated in the Mississippi SIP, "[n]o major emitting facility . . . may be constructed . . . unless . . . a permit has been issued for such proposed facility in accordance with this part [Prevention of Significant Deterioration]."[101] A "major" source is one that "emits, or has the potential to emit" regulated pollutants, including NOx, at rates greater than 250 tons per year.[102] A major source for NOx emissions is also a major source for ozone.[103]

Based on conservative estimates and using information provided by xAI's consultants and the Environmental Protection Agency's compilation of air emissions factors, xAI's Southaven energy installation has the potential to emit NOx in an amount far greater than 250 tons per year.

---

[98] 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 D (1) (2013).

[99] 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (5) (2013).

[100] 11 Pt. 2. Ch. 2 Miss. Code R. 2.5 D (6) (2013).

[101] 42 U.S.C. § 7475(a)(1); 11 Pt. 2 Ch. 5 Miss. Code R. 5.2 (2024) (adopting and incorporating the Prevention of Significant Deterioration regulations, 40 C.F.R. 52.21, as of December 27, 2023, as official regulations of Mississippi and enforceable as such).

[102] 40 C.F.R. 52.21(b)(1)(i)(B). Certain sources are subject to a 100 tpy threshold instead of this 250 tpy threshold, but the 100 tpy threshold is inapplicable here.

[103] 40 C.F.R. 52.21(b)(1)(ii).

It is therefore, at a minimum, a major source of NOx and ozone, and it may also be a major source of other regulated pollutants.

Also under the Clean Air Act, and as incorporated in the Mississippi SIP, no major emitting facility may be constructed unless "the proposed facility is subject to the best available control technology ["BACT"] for each pollutant subject to regulation under this chapter emitted from, or which results from, such facility."[104] BACT for these turbines would be a source-specific emission limit based on, at minimum, use of low-NOx burners, selective catalytic reduction, and catalytic oxidation add-on pollution controls to reduce NOx, volatile organic compounds, and carbon monoxide emissions.[105]

While xAI's consultant represents that 14 of the turbines are operating with selective catalytic reduction and achieving a NOx emission rate of 2ppm, xAI makes no representation of the same pollution controls for the other 13 turbines, instead stating that they operate with an emission rate of 25ppm.[106] Thus, about half of the turbines are not operating with the technology that would satisfy BACT, and *none* of the turbines have been subject to a full BACT analysis consistent with the requirements of the PSD program. Nor is any voluntary use of controls equivalent to a legal requirement to operate them continuously. As such, xAI's failure to comply with the BACT requirement constitutes a significant and ongoing violation that is resulting in substantial amounts of harmful excess emissions.

In sum, xAI has not applied for nor obtained a major source Prevention of Significant Deterioration ("PSD") permit for the turbines currently installed and operating on-site. xAI is not operating the Southaven facility with BACT, as it would be required to under a PSD permit. Every day from the start of construction without a PSD permit through its ongoing operation of the turbines without a permit and corresponding BACT pollution controls, xAI is and has been in violation of the Mississippi SIP and Clean Air Act. Each day constitutes a separate violation, subjecting xAI to a civil penalty per day, per violation.

---

[104] 42 U.S.C. 7475(a)(4).

[105] For instance, TVA's Allen Combined Cycle Plant, located a few miles north of the xAI facility, has recently applied for a major source PSD permit to add six GE Vernova 2500 turbines—xAI's Mississippi operations include 12 GE Vernova 2500 turbines (four are Gen 6, five are Gen 7, and three are Gen 8). Notably, TVA has proposed installing SCR for NOx control on its new turbines, as well as other emission controls to achieve compliance with their proposed BACT emission limit. *See* SHELBY CNTY. HEALTH DEP'T, *Draft PSD Construction Permit Application Evaluation and Review (Permit No.01280-03PC) for TVA – Allen Combined Cycle Plant (ACC) Allen Combustion Turbine (ACT) Project*, at 13 (May 2025) (https://southernenvironment.sharefile.com/d-s5d99ae9619144e288f6884dbc57f2d08) [https://perma.cc/S9MG-86XJ].

[106] Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Update - Portable Turbines (Nov. 5, 2025) (on file with author).

C. Claim 3: xAI has constructed and operated, and continues to operate, a major source of hazardous air pollutants without using the maximum achievable control technology in violation of NESHAP Subpart YYYY.

Stationary combustion turbines that are major sources of hazardous air pollutants are required to comply with NESHAP Subpart YYYY and comply with emission limits established therein.[107] NESHAP Subpart YYYY establishes national emission limitations and operating limitations for hazardous air pollutants emissions from stationary combustion turbines located at major sources of hazardous air pollutants emissions, as well as imposes requirements to demonstrate initial and continuous compliance with the emission and operating limitations.[108] Operators of such turbines are required to install control equipment (typically catalytic oxidation systems) and comply with other requirements in order to reduce carbon monoxide as well as air toxic emissions, including formaldehyde.[109]

Based on estimates drawn from information provided by xAI's consultants and the Environmental Protection Agency's compilation of air emissions factors[110], xAI's Southaven energy installation has the potential to emit formaldehyde, a hazardous air pollutant, in an amount greater than 10 tons per year. It is therefore a major source of hazardous air pollutants, without accounting for other hazardous air pollutants that it may emit.

Given all available information and upon information and belief, the turbines here are subject to NESHAP Subpart YYYY as stationary combustion turbines and are not in compliance with the requirements to meet emission and operating limits and maintain and report compliance with this Subpart. As such, xAI's failure to comply with the MACT requirement constitutes a significant and ongoing violation that is resulting in substantial amounts of harmful excess emissions.

The construction and operation of the turbine facility without complying with NESHAP Subpart YYYY constitutes a violation of the Clean Air Act. Every day xAI operates the unpermitted turbines without use of MACT in violation of the CAA constitutes a separate violation, subjecting xAI to a civil penalty per day, per violation.

IV. AUTHORITY TO BRING SUIT

The NAACP has authority to bring a citizen suit under Section 304 of the Clean Air Act. Section 304, subsection (a)(1) authorizes citizens to sue for violations of an "emission standard or limitation under this chapter."[111] That section defines "emission standard or limitation under this

---

[107] 40 C.F.R. §§ 63.6080–60.6175.

[108] 40 C.F.R. § 63.6080.

[109] 40 C.F.R. §§ 63.6100, 60.6125.

[110] *See AP 42, Fifth Edition, Volume I Chapter 1: External Combustion Sources: Natural Gas Combustion*, ENV'T PROT. AGENCY, https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-1-external-1 [https://perma.cc/WQ6U-NUCK] (last updated Aug. 28, 2025).

[111] 42 U.S.C. § 7604(a)(1).

chapter" in part as any standard established "under any applicable State implementation plan approved by the [EPA]" and "any requirement to obtain a permit as a condition of operations."[112]

As set out above, the Mississippi SIP and relevant sections of the Clean Air Act require a source to obtain a permit to construct before construction, to certify compliance with it before beginning operation, and then to continue complying with that permit until a permit to operate is issued.[113] EPA has approved the Mississippi SIP.[114] xAI has not obtained a permit to construct, certified compliance therewith, or obtained an operating permit, and it constructed and is operating an air pollution source in violation of those provisions of the SIP and the Clean Air Act.

In addition to being defined as any "standard, limitation, or schedule established . . . under any applicable State implementation plan approved by the [EPA] Administrator,"[115] an "emission standard or limitation under this chapter" also includes an "emission limitation, standard of performance or emission standard."[116] The requirement to limit emissions to levels that are achievable when utilizing Best Available Control Technology is an "emission limitation," "standard of performance," and an "emission standard" which is set forth under the Clean Air Act and adopted and incorporated into the federally approved Mississippi SIP.[117] As set out above, xAI has constructed and is operating a new major emitting facility without using Best Available Control Technology.

An "emission standard or limitation under this chapter" is further defined to include "any requirement under section 7411 or 7412 of this title (without regard to whether such requirement is expressed as an emission standard or otherwise)."[118] Section 7412 sets out requirements for major sources of hazardous air pollutants. As set out above, xAI has constructed and is operating a major source of hazardous air pollutants, specifically formaldehyde, without complying with the relevant emissions standard for gas turbines to control formaldehyde emissions.

Section 304, subsection (a)(3) of the Act authorizes citizens to sue "any person who proposes to construct or constructs any new or modified major emitting facility without a permit required under part C of subchapter I (relating to significant deterioration of air quality)."[119] This

---

[112] *Id.* § 7604(f)(4).

[113] 11 Pt. 2 Ch. 2 Miss. Code R. 2.1 D (2) (2013). 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (3) (2013); 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (4) (2013); 11 Pt. 2 Ch. 2 Miss. Code R. 2.5 D (6).

[114] *See* 40 C.F.R. § 52.1270(c) – Table 1. This table identifies the effective date for each EPA-approved provision of the Mississippi SIP within the Mississippi Administrative Code - and cites the most recent Federal Register Notice for EPA's approval.

[115] 42 U.S.C. § 7604(f)(4).

[116] 42 U.S.C. § 7604(f)(1).

[117] 11 Pt. 2 Ch. 5 Miss. Code R. 5.2 (2024) (adopting and incorporating by reference federal PSD program regulations, including BACT requirements).

[118] 42 U.S.C. § 7604(f)(3).

[119] 42 U.S.C. § 7604(a)(3).

provides for citizen enforcement of failure to obtain a PSD permit. As set out above, xAI has constructed and is operating a new major emitting facility without obtaining a PSD permit.

An action under Section 304, subsection (a)(1), may only proceed after a 60-day notice period.[120] However, an action under subsection (a)(3), for a claim of construction of a major emitting facility without a PSD permit may proceed immediately, without a notice period.

V. PERSONS GIVING NOTICE AND LEGAL COUNSEL

This letter provides notice of intent to sue on behalf of the National Association for the Advancement of Colored People (NAACP) and the NAACP Mississippi State Conference. The names and addresses of the persons giving notice are:

NAACP
4805 Mount Hope Avenue
Baltimore, MD 21215

NAACP Mississippi State Conference
1072 JR Lynch Street
Jackson, MS 39203

The NAACP is a national non-profit organization with the mission to ensure the political, educational, social, and economic equality of rights of all persons and to eliminate race-based discrimination. The NAACP's Center for Environmental and Climate Justice addresses environmental and climate injustices—including the siting of polluting facilities and the adverse impacts of fossil fuel combustion—that have a disproportionate impact on Black and other frontline and fenceline communities.

The NAACP Mississippi State Conference represents over 11,000 members across the State of Mississippi, and clean air is of paramount importance to the health and well-being of its members. The State Conference has an established history of environmental justice advocacy across Mississippi.

Members of NAACP and the NAACP Mississippi State Conference include residents living in the communities surrounding 2875 Stanton Road S., Southaven, Mississippi. Members live, work, attend church, and recreate in the area, and they are concerned about their health and the health of their loved ones and neighbors. They are deeply frustrated that xAI is functionally operating a power plant in their backyard without a Clean Air Act permit.

Earthjustice, Southern Environmental Law Center, and Mr. Carroll Rhodes are legal counsel for NAACP and the NAACP Mississippi State Conference in this matter and can be contacted at the mailing and email addresses provided below.

[120] 42 U.S.C. § 7604(b)(1).

VI. LOCATION OF THE VIOLATIONS.

The violations alleged herein occurred, or are continuing to occur, at or near 2875 Stanton Road S., Southaven, Mississippi.

VII. PERSONS RESPONSIBLE FOR VIOLATIONS.

MZX Tech LLC and X.AI Corp. (d/b/a xAI) are the persons responsible for the violations listed herein. They are the owners and/or operators of the unpermitted turbine facility in Southaven, Mississippi.

Upon information and belief, as of early-January 2026, xAI was acquired by SpaceX and is now a wholly owned subsidiary of SpaceX.[121] As the details of the acquisition are not public, SpaceX is included in this letter to ensure that all potentially responsible entities are properly noticed and to preserve claims against any entity that may bear responsibility for the conduct at issue following the acquisition of xAI.

xAI is the entity that discussed with MDEQ "our plans to build energy resources at our property in DeSoto County" (i.e., 2875 Stanton Road S., Southaven, Mississippi).[122] The follow-up email relaying those plans to use portable combustion turbines without a permit is signed by Brent Mayo, with xAI in his email signature.[123] xAI controls the ad hoc power plant that is the subject of this notice letter, including control over environmental decision-making and operations at the property.

MZX Tech LLC is a limited liability company that formed on May 16, 2026 with a principal address at 2110 Ranch Road 620 S, Unit 341886, Lakeway, TX 78734.[124] MZX Tech LLC purchased and, on information and belief, still owns the property at 2875 Stanton Road S., Southaven, Mississippi, where the unpermitted turbines are operating.[125] MZX Tech LLC is also

---

[121] Echo Wang, Milana Vinn, and Matt Tracy, *Exclusive The sale of xAI comes with tax, financial, and legal benefits for xAI and SpaceX investors*, REUTERS (Feb. 5, 2026), https://www.reuters.com/business/finance/sale-xai-comes-with-tax-financial-legal-benefits-xai-spacex-investors-2026-02-06/ [https://perma.cc/XAG7-W6M2].

[122] Email from Brent Mayo, xAI, to Chris Wells & Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Permit Follow Up (July 25, 2025) (on file with author).

[123] *Id*.

[124] *Application to Register Foreign Limited Liability Company*, MISS. SEC'Y OF STATE (May 16, 2025), https://corp.sos.ms.gov/corp/portal/c/page/corpbusinessidsearch/portal.aspx# [https://perma.cc/4WGL-BRXC]. More recent MDEQ correspondence reflects that the agency understands that MZX Tech continues to own the facility with the unpermitted turbines. *See, e.g.*, Email from Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, to Shannon Lynn, Trinity Consultants, RE: Request for Update - Portable Turbines (Oct. 30, 2025) (on file with author).

[125] Matthew Gooding, *Elon Musk's xAI buys former gas power plant site in Southaven, Mississippi*, DATA CENTER DYNAMICS (July 21, 2025), https://www.datacenterdynamics.com/en/news/elon-musks-xai-buys-former-gas-power-plant-site-in-southaven-mississippi/ [https://perma.cc/XE2J-DLAM].

the entity that has applied for a permit for a future power plant on the same site, to provide energy resources to xAI's data centers just as the current unpermitted turbines do.[126]

VIII. DATES OF THE VIOLATIONS

The violations set forth above are ongoing. They began on or before the following dates, and specific information about the dates is in the possession of xAI:

- Claims 1 and 2 began at the first date of construction, which was on or before August 1, 2025,[127] and remain ongoing.

- Claim 3 began on or before October 31, 2025 as the facility was operating with turbines that collectively had the potential to emit more than 10 tons of formaldehyde per year by that date.[128]

Section 113 of the Clean Air Act provides that violators may be assessed a civil penalty "per day for each violation."[129] The amount of this statutory civil penalty is subject to a mandatory inflation adjustment.[130] Federal regulations provide that a penalty of $124,426 per day of violation may be imposed. Until xAI achieves compliance with the Act, the days of violation will continue to accrue.

IX. CONCLUSION

xAI has violated and continues to violate the Clean Air Act and Mississippi's federally-approved SIP by failing to obtain necessary permits and failing to use the necessary pollution controls. If litigation is necessary, NAACP will seek redress for the violations described herein, including injunctive relief, civil penalties, costs, attorneys' fees, and any other appropriate relief pursuant to 42 U.S.C. § 7604(a).

---

[126] MZX Tech LLC PSD Permit Application at 1-3 (July 2025).

[127] Construction began on or before the date of the first turbine being installed on-site. Date on-site information for turbines 1-18 derived from Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Additional Information - Portable Turbines (Nov. 25, 2025) (on file with author).

[128] On information and belief, there were sufficient turbines on-site to constitute a major source of hazardous air pollutants by August 29, 2025. Date on-site information for turbines 1-18 derived from an email from xAI's consultant to MDEQ, in which the consultant represented that the first 18 turbines were all on-site as of August 29, 2025. Email from Shannon Lynn, Trinity Consultants, to Jaricus Whitlock, MISS. DEP'T OF ENV'T QUALITY, RE: Request for Additional Information - Portable Turbines (Nov. 25, 2025) (on file with author). Formaldehyde emissions calculations are explained in footnote 28, *supra*. The turbines were operating sometime on or before October 31, 2025.

[129] 42 U.S.C. § 7413(b).

[130] Fed. Civ. Penalties Inflation Adjustment Act, 28 U.S.C. § 2461, as amended by 31 U.S.C. § 3701; 40 C.F.R. § 19.4; 90 Fed. Reg. 1375, 1377 (Jan. 8, 2025).

During the relevant notice period, NAACP is willing to discuss the factual assertions set forth in this letter as well as effective remedies for the violations. If you wish to pursue negotiations in lieu of litigation, please initiate such negotiations with the undersigned counsel within 20 days so that they may be completed prior to completion of the notice period. For the failure to obtain a Prevention of Significant Deterioration permit prior to construction claim, NAACP reserves the right to file suit at any time prior to the expiration of the 60-day notice period for the remaining claims. NAACP has retained the assistance of the counsel listed below, and all responses to this Notice Letter should be directed to the undersigned counsel.

Thank you for your prompt attention to this matter.

Sincerely,

/s/ Mary Rock
Mary Rock
Earthjustice
D.C. Regional Office
1250 I Street, 4th Floor
Washington, DC 20005
mrock@earthjustice.org
Phone: 202-667-4500

Lauren Godshall
Rebecca Ramirez
Earthjustice
Gulf Regional Office
845 Texas Ave., Suite 200
Houston, TX 77002
lgodshall@earthjustice.org
rramirez@earthjustice.org
Phone: 773-828-0836

/s/ Carroll Rhodes
Carroll Rhodes
Mississippi State Conference of the NAACP
119 Downing St
Hazelhurst, MS 39083
crhode@bellsouth.net
Phone: 601-894-4323

/s/ Patrick Anderson
Patrick Anderson
Keri Powell
Southern Environmental Law Center
Ten 10th Street, NW Suite 1050
Atlanta, GA 30309
panderson@selc.org
kpowell@selc.org
Phone: 404-521-9900

Ben Grillot
Southern Environmental Law Center
122 C Street NW, Suite 325
Washington, DC 20001
bgrillot@selc.org
Phone: 202-828-8382

Elizabeth Putfark
Southern Environmental Law Center
120 Garrett Street, Suite 400
Charlottesville, VA 22902
eputfark@selc.org
Phone: 434-977-4090

Counsel for NAACP and Mississippi State Conference NAACP

DATED: February 13, 2026

Exhibit A

LIFE CYCLE POWER

MOBILE TURBINE

LCP M35

The LCP M35 Turbine is an extremely versatile turbine package capable of delivering 35MW of power. With dual fuel (liquid or gaseous) capabilities, 50/60Hz operable and with a water injection ring fitted as standard it can meet multiple applications. Additionally, it has quick setup times, allowing it to be a good fit for frequent move applications.

PERFORMANCE INFO-ELECTRICAL*			
Exhaust Water Injection		**YES**	**NO**
Frequency Options	Hz	60	60
Power Output (Standby)	kW	35,020	34,500
Power Output (Prime)	kW	35,020	34,500
Power Output (Continuous)	kW	35,020	34,500
Voltages(s) Output	V	13,800 +/- 10%	13,800 +/- 10%
Maximum Amps/Phase	Amps	1,400	1,400
Black Start Power Requirement	kW(V)	1,000kW (480V)	1,000kW (480V)
Max Transient Load (Load Step)	kW	25,000	25,000
Startup Time (From Ready to Start)	mins	5	5
Cool Down Time Before Restart	mins	15 Controlled	4 Hrs. Uncontrolled
Max Altitude	ft	8,000	8,000
Max Ambient Temperature	deg F	130	130
Min Ambient Temp W/O Winterization	deg F	-40	-40

PERFORMANCE INFO-FUEL**			
Specific Energy Consumption (Heat Rate)	btu/kW-hr	9,105	8,877
Specific Fuel Consumption – NG	scf/kW-hr	9.1	8.9
Ng Fuel Pressure Range (Limits)	psi	385-575	385-575
Ng Fuel Pressure Range (Preferred)	psi	480-520	480-520

** Power output is based on iso conditions (sea level and 59°F), 60Hz, for actual performance, refer to derate tables below or contact Lifecycle Power, 50Hz performance (if available) are provided on request*

*** Fuel consumptions are based on 100% loading at ISO conditions utilizing commercial spec fuels, for detailed performance refer to derate table below or contact Life Cycle Power*

Key Features of the M35

- GE LM2500+G4 turbine
- Capability of installation in less than 24hrs from arrival on site
- 60Hz, 13.8kV generator (Auxiliary transformer to run at 12.47kV or 13.8kV). Oversized for future insertion of the LM2500+G5
- 99.9% GE LM2500+G4 reliability, Thousands of gas turbine installations globally
- Transported as four trailers (Turbine, Generator, Air inlet. Exhaust)
- Integrated ATS and low Voltage transformer for control power. Allows Black start to be switched off once turbine is operational
- Integrated control room on trailer
- Hydraulic turbine starter
- Dual frequency available (50/60Hz)
- Optional water injection provided for reduced emissions
- Accepts Diesel, LNG, CNG, pipeline, hydrogen blends or field gas as fuel
- Can be paralleled with all other LCP models to give microgrids capable of 100's of MW
- Proven capabilities operating on high BTU gas fuels- 1,400btu/ft3 standard, 1,900 btu/ft3 with treatment
- No oil or spark plug changes required (unlike engines) means no shutdown requirements until annual borescope and inspection
- No concrete pad required

FROM PIPELINE TO POWERLINE. WE DELIVER.

MOBILE TURBINE

LCP M35

LIFE CYCLE POWER

PERFORMANCE INFO-NOISE

Noise Level (3ft)	dBa	87
Noise Level (100)	dBa	84

PERFORMANCE INFO-EMISSIONS***

		YES	NO
Specific Water Consumption	Gal/kW-hr	0.052	0
Emission - NOX	g/kW-hr (g/bhp-hr)	0.4 (0.3)	3.72 (2.77)
Emission - CO	g/kW-hr (g/bhp-hr)	0.77 (0.57	0.04 (0.03)
Emission - THC	g/kW-hr (g/bhp-hr)	0.12 (0.09)	0.01 (0.01)
Emission - NMHC	g/kW-hr (g/bhp-hr)	0 (0)	0 (0)
Emission - PM	g/kW-hr (g/bhp-hr)	0.05 (0)	0.05 (0)
Emission - SO	g/kW-hr (g/bhp-hr)	0 (0)	0 (0)
Emission – CO2	g/kW-hr (g/bhp-hr)	522 (389)	509 (379)

PHYSICAL INFORMATION

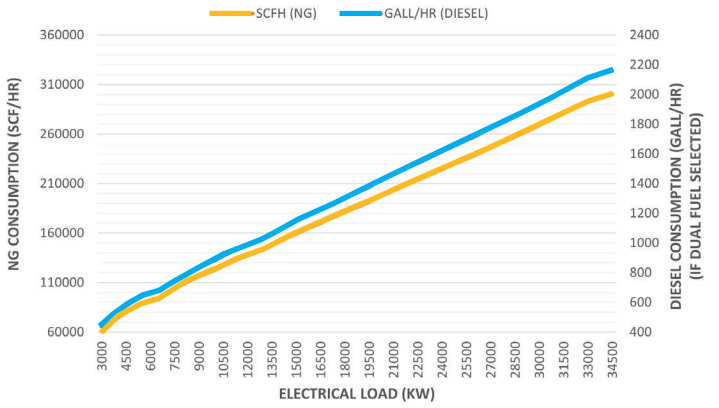
Qty Of Trailers Required		4
Weight (Trailer 1) Generator	lbs.	224,000
Weight (Trailer 2) Turbine	lbs.	107,000
Weight (Trailer 3) Air Inlet	lbs.	80,000
Weight (Trailer 2) Exhaust *(Transport)*	lbs.	73,000
Total Weight	lbs.	484,000
Ground Preparation Requirements	Compacted Base	
Dimensions (Trailer 1)	LxWxH (ft)	71x8.5x13.5
Dimensions (Trailer 2) Liquid Fuel Skid	LxWxH (ft)	59 x 2 x 23
Dimensions (Trailer 3)	LxWxH (ft)	24 x 8.5 x 14
Dimensions (Trailer 4)	LxWxH (ft)	24 x 8.5 x 14
Total Installed Footprint	LxW (ft)	90 x 40
Average Install Man Hours	hrs	12

ONSITE CONNECTIONS**

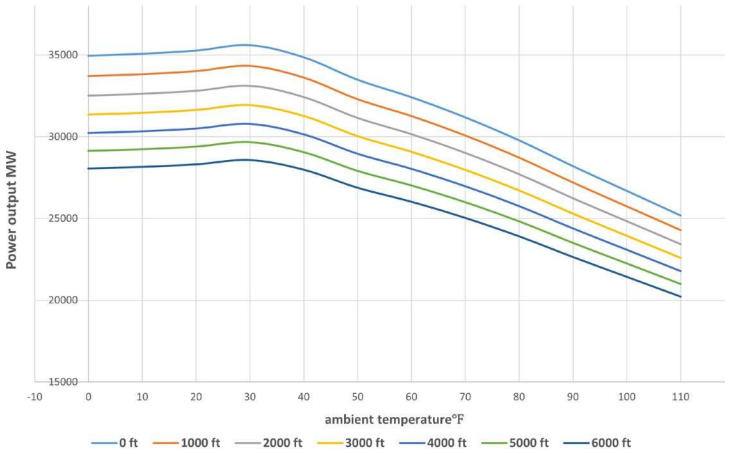
Fuel NG	3” 600lb ANSI Flange
Fuel Diesel	1.5” 600lb ANSI Flange
Electrical Load Out	Dead Break Connections 2 Run/Phase 750mcm
Grounding	High Resistance Grounding System
Black Start	MELTERIC DR400
Water Exhaust Injection (If installed)	1” 600lb Ansi Flange

*** Emissions based on pipeline quality NG fueled & iso conditions. For site-specific emissions performance contact Life Cycle Power*

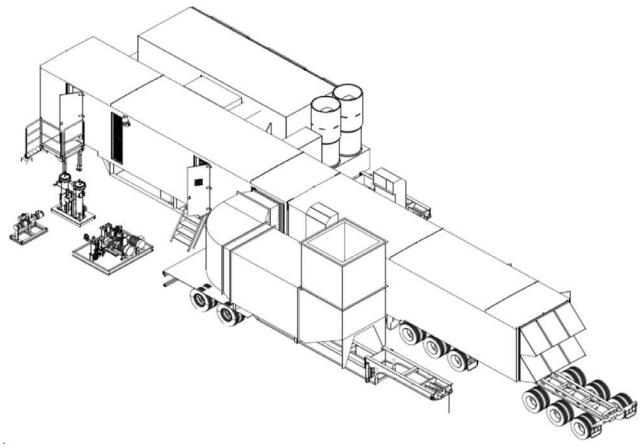
LCP M35 FUEL CONSUMPTION VS. LOAD



M35 MAX AVAILABLE POWER



MAJOR COMPONENTS



Solar® Turbines
A Caterpillar Company

SOLAR® MOBILE TURBOMACHINERY
SMT130 – Powered by Titan™ 130

Powering the Future Through Sustainable, Innovative Energy Solutions

The SMT130 is the economic and sustainable solution for mobile and rapid deployment power generation. The 16 MWe complete power plant is designed around the proven Titan™ 130 gas turbine for quick setup, global transportability and reliable operation. The SMT130 is ready to go anywhere, anytime.

COMPLETE SOLUTION

- Fully-Integrated Mobile Power Plant
- 13.8KV/12.47KV (60 Hz) Generator
- Dual Fuel System (Natural Gas and Diesel #2)
- Low Emissions SoLoNOx™ Combustion System
- Lightweight, Dual Frame Design with Separate Air Filtration Module
- Compact Footprint for High Power Density
- Low-Profile Modular Design to Minimize Installed Height
- Easily Relocatable via Highway or Rugged Terrain
- Transcontinental Transportability by Ocean Freight
- World-Class Global Customer Support Network

PARK, PLUG AND POWER

- Quick and Innovative Setup – Less Than 12 Hours
- No Concrete Foundation Required
- No Crane Lifts Required at Site
- Hydraulic Leveling System
- Rapid Alignment Technology

STANDARD FEATURES

- Wide Fuel Flexibility (Field Gas, CNG, LPG, etc.)
- Temperature Range from -18°C to 49°C (0°F to 120°F)
- Complete Electrical Equipment Compartment with Motor Control Center and HVAC
- Utility Grade Switchgear and Protective Relay Module
- Compact Medium Voltage Compartment
- Internal 120V Outlet
- Optional Sound Attenuation System
- Add-On Option for Multi-Unit Power Management and Microgrid Control with Solar® StationEdge
- InSight™ Platform Compatible
- Digital Load Sharing Capability Across Solar Fleet
- Standard Offering at 25 PPM NOx with Optional Configurations Down to 15 and 9 PPM NOx

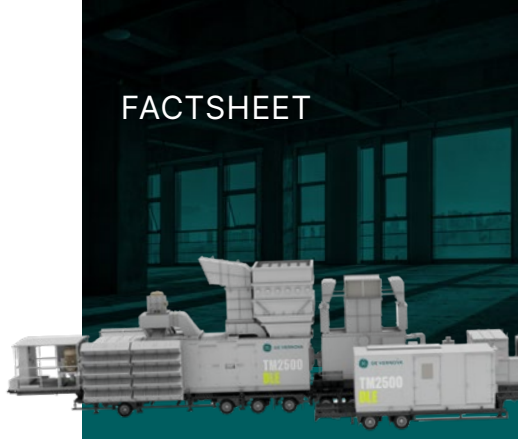
SMT 130

GE VERNOVA

FACTSHEET

TM2500

AERODERIVATIVE PACKAGE



SWITCHING FROM A DIESEL ENGINE AND ELECTRIC GENERATOR (DIESEL GENSET) TO A TM2500 BURNING NATURAL GAS CAN SAVE UP TO $8 MILLION PER YEAR IN OPERATING COSTS.

		TM2500 SAC	TM2500 DLE
SC PLANT PERFORMANCE	SC Net Output (MW)	34.6/36.9††	34.5/34.4††
	SC Net Heat Rate (Btu/kWh, LHV)	9814/9377††	8648/8557††
	SC Net Heat Rate (kJ/kWh, LHV)	10354/9893††	9124/9028††
	SC Net Efficiency (%, LHV)	34.8% 36.4%††	39.5%/39.9%††
	Fast Start Capability (Minutes)	5	5
1X CC PLANT PERFORMANCE	CC Net Output (MW)	49.5/51.5††	47.9/47.5††
	CC Net Heat Rate (Btu/kWh, LHV)	6833/6701††	6209/6175††
	CC Net Heat Rate (kJ/kWh, LHV)	7209/7070††	6551/6515††
	CC Net Efficiency (%, LHV)	49.9%/50.9%††	55.0%/55.3%††
	Plant Turndown – Minimum Load (%)	35.0%	35.0%
	Ramp Rate (MW/min)	30	30
	Startup Time (RR Hot†, Minutes)	30	30
2X CC PLANT PERFORMANCE	CC Net Output (MW)	99.9/103.9††	96.5/95.8††
	CC Net Heat Rate (Btu/kWh, LHV)	6776/6640††	6160/6124††
	CC Net Heat Rate (kJ/kWh, LHV)	7149/7006††	6499/6461††
	CC Net Efficiency (%, LHV)	50.4%/51.4%††	55.4%/55.7%††
	Plant Turndown – Minimum Load (%)	35.0%	35.0%
	Ramp Rate (MW/min)	60	60
	Startup Time (RR Hot†, Minutes)	30	30

NOTE: Net Plant ratings are based on ISO conditions, natural gas, inlet and exhaust losses included and balance of plant equipment excluded. Actual performance will vary with project specific conditions, fuel and ambient conditions. 2PNRH = Two pressure, non-reheat.
† Rapid Response/Hot Start
†† 50 Hz/60 Hz

~37 MW
SIMPLE CYCLE OUTPUT

~40%
SIMPLE CYCLE EFFICIENCY

50/60
HZ

The TM2500 package is ideal for providing a baseload bridge to permanent power installations or for generating backup power in the wake of emergencies like natural disasters, plant shutdowns, or grid instability. Our complete solutions, including a trailer-mounted gas turbine generator set and containerized balance-of-plant, can put power on the grid within as little as 30 days of the contract signature. This fast power provides the greatest power density among gas turbine trailer-mounted offerings.

Up to **35%** Hydrogen (H_2) Capability

TO LEARN MORE ABOUT THIS OFFERING, CONTACT YOUR SALES REPRESENTATIVE OR VISIT

gevernova.com

© 2025 GE Vernova and/or its affiliates. All rights reserved.
GE and the GE Monogram are trademarks of General Electric Company used under trademark license.
Information contained in this document is indicative. No representation or warranty is given or should be relied on. Information provided is subject to change without notice.
The TM2500 is a registered product of GE Vernova.

GEA35745 (09/2025)

GE Power

GE's TM2500 solution offers fast, mobile and flexible power

a product of
ecomagination

35 MW
power potential on wheels

79 MILLION HOURS
accumulated hours of successful heritage operation

~1 MONTH
from contract signing to commissioning

11 DAYS
from parking first trailer to commissioning

10 MINUTES
full power production in less than 10 minutes

The ultimate solution for fast power needs in the 21st century

Currently, more than 1.3 billion people globally lack access to electricity. GE, whose technologies already help deliver a quarter of the world's electricity, is working to bridge the gap through a portfolio of distributed power solutions. These technologies enable industrial businesses, developing communities and governments to meet their energy needs by positioning power at, or near, the point of use. The TM2500* fast power solution from GE Power's Gas Power Systems business enables governments, utilities, and businesses around the world to fulfill their generation requirements within days. Thanks to their modular concept, fast installation features and quick production schedules, these units typically can be ready to enter into commercial operation approximately 30 days after your order is placed.

The TM2500 fast power solution harnesses the highly successful LM2500* aeroderivative gas turbine with more than 2,196 units deployed worldwide and more than 79 million hours of operation.

Features of the TM2500 fast power solution

Quick lead times

On-demand power plants delivered in weeks, not months

Fuel flexibility

Can operate on gas and/or distillate liquid fuel

Lower emissions

50 percent lower emissions than diesel generators when operating on gas

Proven technology

More than 2,196 LM2500 gas turbines deployed with 79 million operational hours of experience

Enhanced design

Two-trailer footprint for high power density

Scalable, reliable power

Able to add 35 MW blocks of power as demand increases

Distributed power

Localized power supply, eliminating the need for additional transmission and generation infrastructure

Project experience

More than 15 years of experience in providing fast and emergency power

Turnkey design

Delivery of complete energy solution

Benefits of a TM2500 solution

Speed

The development of a new power plant could entail months of construction and commissioning. We can shorten that time from months to days under most conditions. Once on the ground, these mobile units can generate power in about 11 days.

Reliability and availability

Due to our aviation legacy with the LM2500+G4 gas turbine, GE's TM2500 fast power solution represents some of the most reliable distributed power units available. That means consumers will not face frequent interruptions and instabilities due to technical problems related to faulty equipment or an unstable electricity grid.

Dual fuel capability

TM2500 solutions are capable of running on both natural gas and/or distillate or condensate liquid fuel at an output of up to 35 MW with water injection for NOx abatement.

Mobility

Mounted on a mobile, two-trailer assembly, TM2500 generator sets can be transported via land, sea, and air to some of the most remote places in the world. Their mobile nature means that they can be swiftly deployed to other sites within days when they are no longer required at the original site.

Flexibility

Extremely flexible, they have a sub 10-minute start cycle to full power.

Scalability

The technology is also scalable, allowing the purchase of the number of units needed with the option of adding more power quickly as demand increases.

Gradual financing

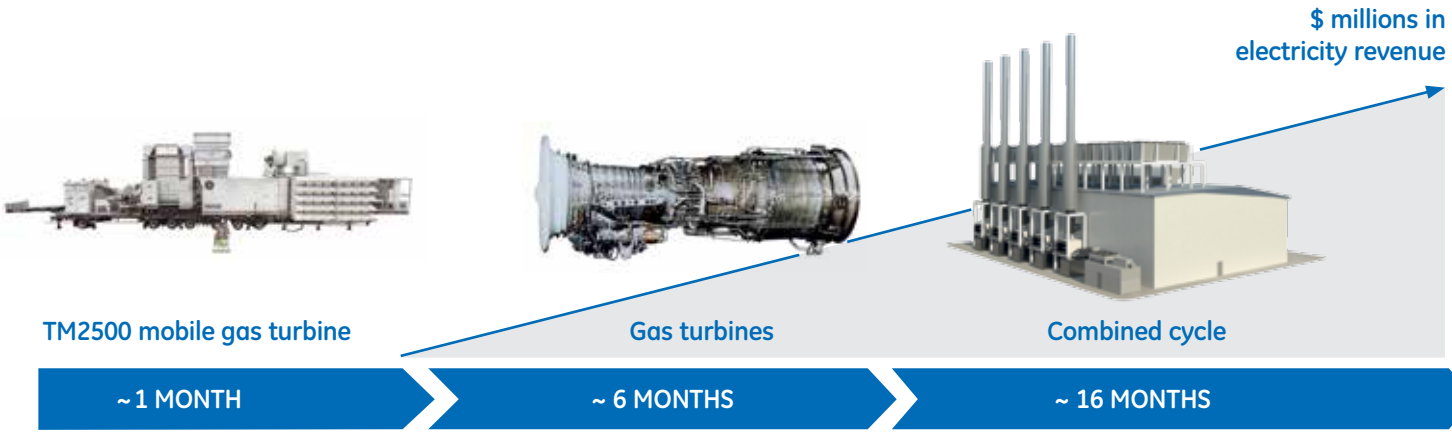
Because large capital expenditure costs can be a barrier for some projects, these units can be purchased gradually for financing ease. In addition, they can be deployed where ever demand exists without the need to invest in capital-intensive transmission and distribution infrastructure.

Rental

For rental solutions, contact our partner APR Energy at +1 904 223 2278 or visit www.aprenergy.com.

The TM2500 solution can be deployed more than six times faster than other technologies

Customers may immediately generate incremental electricity revenue.



The TM2500 can be in commercial operation approximately 30 days after an order is placed, but these times may vary based on project location, site readiness, permitting process, and other variables.

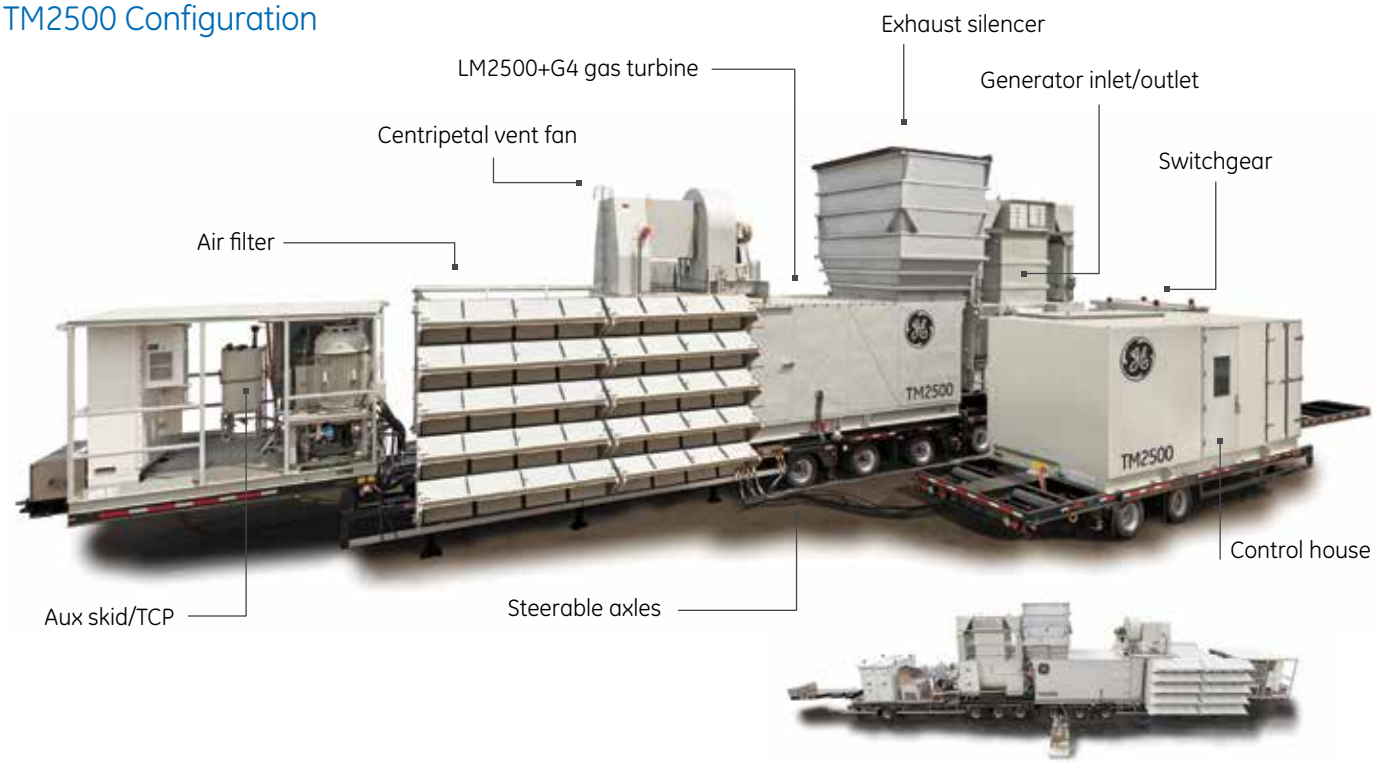
Multiple applications in a wide range of industries

The TM2500 solution can solve a number of industry challenges. These include, but are not limited to, difficult access to the electric grid, an unstable grid, emergencies and natural disasters, rapid demand growth such as large construction projects, as well as escalating electricity prices and seasonal shortages.

The Challenge	Description	Potential Industries	TM2500 as a solution
Limited or no access to the electric grid	Cases with challenging access to the electric grid include: • Lack of robust transmission and distribution network • Delayed grid access • Remote, islanded and mobile operations	Oil and gas Mining General industry Power generation	**Speed, mobility, and reliability** Can deliver power where and when it is needed and bring power online within 10 minutes to stabilize the grid
Rapid energy demand growth	High and rapid demand for electricity in cases with restricted power availability such as new, large off-grid construction projects	Government Utilities General industry	**Speed, reliability** Can fulfill power demand in the face of growing needs in a fast and reliable way
Lengthy buildout of electricity generation infrastructure	Construction lead times on new generation facilities as well as unanticipated delays—meaning pressing electricity needs are not met	Government Utilities General industry	**Speed, reliability** Can bridge power until new facilities are completed and go online
Escalating electricity prices	Escalating electricity rates during seasonal or peak periods requiring technologies that enable peak shaving	Government Utilities General industry	**Fuel flexibility** Can be used as a peak shaving application to help transition off the grid during seasonal or peak periods
Natural disaster and emergencies	Cases of emergency where power generation sources are impacted and direly needed	Government Utilities	**Speed, mobility** Can provide emergency power in a fast, reliable and mobile way
Flare gas	Natural gas flared in oil fields leading to billions of dollars wasted and millions of tons of greenhouse gas emissions	Oil and gas	**Fuel flexibility, mobility** Can help monetize gas flaring for power generation and help reduce diesel consumption

Performance you can count on for mobile power

TM2500 Configuration



Model	Frequency (Hz)	Output (MW)	Heat Rate (Btu/kWh)	Heat Rate (kJ/kWh)	Efficiency (%)	Pressure Ratio	Exhaust Temp (F)	Exhaust Temp (C)	Exhaust Energy (MMBtu/hr)	Exhaust Energy (MMkJ/hr)
TM2500	50	30.7	9,832	10,374	34.7	24.5	963.0	517.0	187	191
TM2500	60	34.9	9,341	9,856	36.5	24.7	950.0	510.0	185	195

NOTE: The performance data shown above is at standard ISO (International Organization for Standardization) conditions. The ISO has defined the following standard conditions for comparing gas turbine engines Ambient air: 59°F/15°C, 60% RH; Barometric pressure (14.696 psia / 101.4 kPa); Sea level altitude

ASSUMPTIONS: Expected inlet/exhaust losses, ISO conditions, Air-cooled generator, with brushless excitation @ 0.90 PF (60 Hz @13.8 kV, 50 Hz @ 11.5 kV)
Gas fuel, 100% CH_4 @ 80F, Water injection to 25 ppm NO_X @ 15% O_2

The TM2500 total solution and services support

A TM2500 fast power solution project may include:

- Installation
- Commissioning
- Project management
- Decommissioning
- Consumable parts kit (filters/lubricants for operation needs)

In addition, GE offers many services to support the ongoing operation and performance of the units including, but not limited to the following:

- On-call technical advisory services
- Maintenance planning and training
- On-site hot section, combustor, and other modular exchanges
- Depot Repair Services for scheduled overhauls and unscheduled repairs
- Performance testing

Cases in point

Egypt

500 MW of power, delivered in six months

With rapid economic growth and an expanding population, Egypt is a country in transition. Its desert climate necessitates a massive amount of power generation, and while GE's products currently generate nearly 30% of the country's total installed capacity, its electricity demand is expected to grow at 4.1% per year.

Beginning in December 2014, GE and the Egyptian government took vital steps towards meeting the sharp increase in the country's electricity demand. GE provided 20 TM2500 generator sets – totaling 500 MW of total power – and promised to install and commission all units within six months in order to meet 2015's hot summer months.

The mobile, flexible power provided by the TM2500, combined with the rapid installation and support provided by GE in the region, allows Egypt to meet the challenge of new energy frontiers and support its growing economy. Each unit was able to be delivered to where it needed to be, quickly and safely, saving the Egyptian government tremendous costs and time before power was available to be added to the grid.

By working quickly to get the TM2500 generator sets up and running byJune 2015, GE predicts that Egypt will avoid $24.7 million in economic losses per day—which will add up to $4.1 billion over the course of the demanding summer season.

Algeria

480 MW† of on-demand power for Algeria

Algeria faces a drastic need for more power, particularly during the hot summer months when there is close to ten percent annual growth in electricity demand.

GE delivered 24 TM2500 mobile gas turbine generators that provided more than 480 MW of power. The units were commissioned, delivered and operational in time to meet the northern districts of M'Sila and Fkirina's 2013 summer peak electricity demand. After the seasonal peaks, some of the units were deployed to other cities in the south of the country to serve as permanent power.

Greece

23 MW† for peak shaving in ten days for Greece

The Greek island of Rhodes is a prime tourist destination. During the summer months, an influx of more than two million people from all over the world swells demand for power to the breaking point.

To avert blackouts, the island purchased a TM2500 generator set, which was delivered before the summer season and commissioned within a few days of arrival onsite. This provided 23 MW of power generation in tandem with water injection to lower NOx levels to below 25 ppm.

Angola

120 MW for bridging power for Angola

Only 26 percent of Angola's population of 19 million have access to power. Rich in natural resources, the country is engaged in a priority program to create a modern energy infrastructure.

The government of Angola ordered five TM2500 mobile gas turbine generator sets. 120 MW of onsite power is bridging the energy gap during ongoing plant construction, improving grid reliability and countering the rising cost of diesel fuel.

†Power output is based in site conditions.

"GE's TM2500 systems offer the right combination of efficiency and reliability needed to help the Angolan state utility, Empresa Nacional Electricidade-E.P. (ENE), reduce its fuel costs and increase the reliability of grid service in order to support continued economic growth in Angola."

— NYEMBO ILUNGA
PRESIDENT, LS ENERGIA AFRICA

GAS POWER SYSTEMS

GE Power's Gas Power Systems is the global industry leader in efficient, reliable, and cost-effective conversion of a broad range of gas and liquid fuels to power—serving diverse applications from small, mobile power to highly efficient, utility-scale power plants. With a rich heritage of innovation and technology leadership—and the world's largest delivered fleet of gas and steam turbines serving the power needs of more than 130 countries—our specialized plant solutions can provide the increased performance, fuel efficiency, lower emissions and operational flexibility that our customers depend on for their success.

For rental solutions, contact our partner,
APR Energy at +1 904 223 2278.

powergen.gepower.com

*Trademark of General Electric Company
Copyright © 2015 General Electric Company. All rights reserved.

GEA31885 (11/2015)