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UNITED STATES OF AMERICA
DEPARTMENT OF ENERGY
OFFICE OF FOSSIL ENERGY AND CARBON MANAGEMENT

Gulfstream LNG Development, LLC Docket No. 23–34–LNG

Protest of Public Citizen, Inc.

Gulfstream LNG, presently owned by a single individual, Vivek Chandra, has amended its application to change the site of its proposed LNG export project in Plaquemines Parish, Louisiana from which it seeks to export 237.5 Bcf/year of LNG to non-Free Trade Agreement (FTA) countries.[1]

The U.S. Department of Energy is tasked by Congress to only permit exports of natural gas to non-FTA countries which are "consistent with the public interest."[2] The U.S. Supreme Court noted that the "primary aim" of this 86-year-old law is "to protect consumers against exploitation at the hands of natural gas companies".[3]

The application must be denied because it is not consistent with the public interest. America's entire domestic energy supply balance has radically changed since Gulfstream LNG's initial application in March 2023.[4] Many estimate that projections for unprecedented increases in domestic electricity demand—driven by the combination of the proliferation of energy-hungry data centers, and electrification of buildings and transportation—will likely require additional natural gas generation that cannot co-exist with increased volumes of LNG exports, including from Gulfstream LNG.

On May 23, 2024, the Federal Energy Regulatory Commission released its 2024 Summer Energy Market and Electric Reliability Assessment, warning that "Nationwide, data center demand is expected to reach 35 GW by 2030, up from 17 GW in 2022, and has been one of the major drivers behind the sharp increase in electricity demand in 2023."[5] These estimates are confirmed by a separate McKinsey analysis.[6] The Electric Power Research Institute estimates that data centers could consume up to 9% of U.S. electricity generation by 2030.[7] Goldman Sachs expects natural gas to fuel 60% of the increased power demand from data centers,[8] and projects that "US utilities will need to invest around $50 billion in new generation capacity just to support data centers alone … incremental data center power consumption in the US will drive around 3.3 billion

[1] www.govinfo.gov/content/pkg/FR-2024-05-07/pdf/2024-09884.pdf
[2] 15 USC § 717b(a).
[3] FPC v. Hope Nat. Gas Co., 320 U.S. 591 (1944).
[4] www.citizen.org/wp-content/uploads/GulfstreamLNGProtest.pdf
[5] At page 47, www.ferc.gov/news-events/news/report-2024-summer-energy-market-and-electric-reliability-assessment
[6] www.mckinsey.com/industries/technology-media-and-telecommunications/our-insights/investing-in-the-rising-data-center-economy
[7] www.epri.com/about/media-resources/press-release/q5vU86fr8TKxATfX8IHf1U48Vw4r1DZF
[8] www.cnbc.com/2024/05/15/microsofts-carbon-emissions-have-risen-30percent-since-2020-due-to-data-center-expansion.html

cubic feet per day of new natural gas demand by 2030, which will require new [gas] pipeline capacity to be built.[9] Reuters reports that "[n]ine of the top 10 U.S. electric utilities said data centers were a main source of customer growth, leading many to revise up capital expenditure plans and demand forecasts".[10] Wood Mackenzie also projects that natural gas fueled power plants will meet much of that projected power demand:

> *We're forecasting much higher gas demand from power compared with two years ago. We raised our forecast for gas demand from the power sector from 2022 to reflect the difficulty the US faces in achieving its very challenging renewables build-out targets. We also edged up our forecasts for LNG exports, easily the biggest growth segment for US gas demand. The second big upgrade came last month in our latest North America gas strategic planning outlook. It takes into account the explosive growth in data centres and AI that's unfolding, along with the reshoring of power-intensive industries such as chip manufacturing.* ***We now expect total US gas demand to increase by 30 bcfd by the early 2040s compared with 13 bcfd previously****. [emphasis added]*[11]

A May 28, 2024 TD Cowen report Data Centers, Generative AI & Power Constraints: the Path Forward estimates that:

> *non-latency sensitive workload migration, transmission upgrades, and natural gas will play a critical role in servicing incremental data center demand . . . every incremental 100MW of data center demand will require 19-25 MMcf/D of natural gas to satisfy power burn, resulting in an incremental 4.5-6.5 Bcf/D of natural gas demand by 2028, or roughly 1.3 Bcf/D+ per year, which is not an insignificant ~1.5% growth driver per year of overall natural gas demand.*

RBN Energy reports:

> *The rise in the use of AI at data centers will significantly increase demand during the second half of this decade, according to an April report from Tudor Pickering Holt & Co. The investment bank estimated that data centers are currently consuming 11 GW, but that their demand will climb to 42 GW — nearly 4x today's level — by 2030. The report also predicts that at least 2.7Bcf/d of incremental natural gas will be needed by 2030, and perhaps as much as 8.5 Bcf/d. TPH's estimate for incremental gas demand compares favorably with what some in the energy industry are asserting:*
>
> - *Antero Resources, the big Marcellus/Utica gas producers, said during its Q1 earnings call that it expects natural gas demand for power generation to increase by 150%, or 14% annually — equivalent to nearly 8 Bcf/d of incremental demand — through 2030 because of the increased power consumption by AI data centers, cryptomining and EVs.*
> - *EQT Corp. echoed a similar sentiment in demand during its Q1 earnings call. It expects these factors to drive the need for an incremental 10 Bcf/d of natural gas demand by2030 and maybe as much as 18 Bcf/d. The E&P said that to help ensure that more gas can reach fast-growing demand areas in the Mid-Atlantic and Southeast it plans to expand Mountain Valley Pipeline*

[9] www.goldmansachs.com/intelligence/pages/AI-poised-to-drive-160-increase-in-power-demand.html
[10] www.reuters.com/business/energy/us-electric-utilities-brace-surge-power-demand-data-centers-2024-04-10/
[11] www.woodmac.com/news/the-edge/could-us-data-centres-and-ai-shake-up-the-global-lng-market/

> *Data centers are one of the most energy-intensive building types, consuming anywhere from 10 to 50 times the energy per floor space of a typical commercial office building, with electrical demand at larger facilities ranging from100 megawatts (MW) to 300 MW, enough to power tens of thousands of homes. Data centers are pushing demand higher in large part because of AI services like ChatGPT, which require far more energy than a simple web search. (A Google search query requires about 0.0003 kWh; a ChatGPT query is estimated to need as much as 0.01 kWh — or 30Xthe simple search.) And it's important to note that data centers, AI and cryptocurrency operations also need a significant amount of energy to keep them cool, which can increase usage by another 10% or more . . . Dominion Energy, a major utility provider in eight states, including Virginia, estimates that data center power demand in the state will rise by 376% by 2038. It also estimates that total demand will increase by 85% during the next 14 years as more EVs, appliances and electric-powered heating and cooling units (i.e., heat pumps) are installed . . . the Tennessee Valley Authority reported that 65% of its load growth since 2019 has come from datacenters. The federally owned utility is building or has proposed the construction of eight new natural gas-fired plants to cope with the increasing demand.*[12]

Utilities across the Southeastern U.S. are experiencing unprecedented energy demand growth and responding with formal requests to increase natural gas-fueled generation capacity,[13] with Dominion's CEO saying "we're going to need some more natural gas in order to keep the lights on."[14] East Daley Analytics estimates that 3-15 Bcf/d of additional gas demand could emerge by 2030 just to support data centers and AI machine learning facilities. And "TC Energy is seeing new demand emerge in the Midwest on the company's [natural gas] ANR Pipeline. ANR has struck an agreement with a local distribution company to supply Microsoft's new data center in Mount Pleasant, WI. The Wisconsin Reliability project will provide up to 144 MMcf/d of gas delivery. In our TRP Financial Blueprint, we estimate the project will contribute $29MM in annual EBITDA to ANR Pipeline."[15]

Texas is implementing already-enacted legislation to provide billions of dollars in loans to finance the construction of 41 GW of new gas-fired power plants, with the state's Republican leadership planning to further expand its state-sponsored natural gas power buildout.[16]

Electricity demand in the Permian Basin is set to double from 2021 levels by 2030, with 58% of the demand coming from cryptomining facilities.[17] Entergy plans to rely on new gas powered generation to meet 1.2 GW of expected increased demand for southeast Texas.[18]

[12] rbnenergy.com/storm-front-as-data-centers-proliferate-utilities-turn-to-gas-fired-power-to-meet-demand
[13] www.eenews.net/articles/southeast-utilities-have-a-very-big-ask-more-gas/
[14] www.wsj.com/business/energy-oil/how-big-data-centers-are-slowing-the-shift-to-clean-energy-44ef4145
[15] www.eastdaley.com/media-and-news/data-center-demand-could-send-midstream-to-the-moon
[16] www.utilitydive.com/news/more-than-41-gw-gas-projects-texas-energy-fund/717745/
[17] www.eenews.net/articles/bitcoin-in-the-permian-data-centers-test-texas-grid/
[18] www.utilitydive.com/news/entergy-proposes-gas-fired-power-plants-1200-MW/718036/

Last month, AEP formally asked Ohio regulators for changes in policies to accommodate unprecedented electricity load growth from data centers and generative AI facilities locating in the state.[19]

In short, the domestic energy landscape has radically changed due to unprecedented increased load driven by data centers, building electrification and the rise of EVs, and there are dozens of formal proposals to meet this new demand with natural gas. Gulfstream's application fails to account for this dramatic change, and as such its request to export LNG is inconsistent with the public interest, as it threatens higher domestic prices and potential supply disruptions.

Respectfully submitted,

Tyson Slocum

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[19] www.dispatch.com/story/business/energy-resource/2024/05/14/aep-ohio-rolls-out-proposal-to-handle-surge-in-data-center-power-needs/73677235007/

VERIFICATION

Pursuant to 10 CFR § 590.103(b), I, Tyson Slocum, declare that I am Energy Program Director for Public Citizen, Inc. and am authorized to make this verification; that I have authored and read the foregoing filing and that the facts therein stated are true and correct to the best of my knowledge, information, and belief.

Pursuant to 28 U.SC § 1746, I declare under penalty of perjury that the foregoing is true and correct. Executed on June 6, 2024.

Tyson Slocum

Tyson Slocum
Energy Program Director
Public Citizen, Inc.

CERTIFICATE OF SERVICE

I hereby certify that I have this day served the foregoing document upon the applicant and intervenors for this docketed proceeding in accordance with 10 CFR § 590.107(b). Dated at Washington, DC this 6th day of June 2024.

Signed,

Tyson Slocum

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