

**FREEPORT LNG COMMENTS TO
U.S. DEPARTMENT OF ENERGY'S ENERGY, ECONOMIC, AND ENVIRONMENTAL
ASSESSMENT OF U.S. LNG EXPORTS (DECEMBER 2024)**

INTRODUCTION AND BACKGROUND

Freeport LNG Development, L.P. (Freeport LNG) is a U.S. natural gas liquefaction and export company with facilities located near Freeport, Texas in Brazoria County, and offices in Houston, Texas. Freeport LNG employs approximately 600 full-time employees. Freeport LNG invested over \$13 billion in the permitting, engineering and construction of its facilities. During a five-year construction period, Freeport LNG employed thousands of contractors to build its facilities, with peak workforce exceeding 8,000 personnel. Today, Freeport LNG produces over 15 million tons of LNG per year and is one of the top 3 largest U.S. LNG companies. Freeport LNG's activities indirectly support over 30,000 jobs as a result of incremental natural gas exploration, production and processing associated with the LNG produced and exported by its facilities. These LNG exports have a \$5 – 7 billion net positive impact to the U.S. economy each year. Locally, Freeport LNG is estimated to pay over \$2.6 billion in taxes to local taxing jurisdictions over its facility's 20-year initial operating life. It has (or will) pay over \$50 million to local municipalities through payment-in-lieu of taxes (PILOT) agreements. In addition, through a third party local economic impact study performed by Impact DataSource (which is attached to these comments as Appendix A), it is estimated that Freeport LNG's activities contributed almost \$640 million, directly and indirectly, to the Brazoria County economy in 2024 alone, as well as supported almost 1,100 jobs in the county and provided \$26.5 million in revenues for local taxing jurisdictions in 2024.

The aforementioned local and national economic benefits were only achievable because Freeport LNG's liquefaction project was able to be successfully commercialized and developed through significant at-risk investment and the function of free markets, in the United States and abroad. After Freeport LNG's facilities went into commercial operation in late 2019/early 2020, and through the development and operation of other U.S.-based liquefied natural gas (or LNG) facilities, the U.S. LNG industry helped usher in an era of U.S. energy security and dominance, wherein the United States has been able to both support Asian countries continued transition from coal-based power to cleaner burning natural gas-based power and mitigate the weaponization of natural gas by Russia against Europe.

The growth of the U.S. LNG industry has been nothing short of revolutionary. The sheer magnitude of both the domestic economic benefit and the U.S. geopolitical influence provided by the U.S. LNG industry's entry into the global marketplace in an incredibly short period of time is unprecedented. However, the significant success, and economic and geopolitical benefits, derived from a robust and reliable U.S. LNG industry has been threatened by the Biden Administration's politicization of U.S. LNG through its LNG permitting "pause" and the significant shifting of goalposts across regulatory, political and judicial landscapes in recent years. The Department of Energy's (DOE) release of its Energy, Economic, and Environmental Assessment of U.S. LNG Exports (hereinafter, the "DOE Report") in the waning days of the Biden Administration was a parting shot in its attempt to undermine the U.S. LNG industry via a misleading, superficial and incomplete evaluation of the benefits of U.S. LNG exports.

The comments submitted herein by Freeport LNG closely align with those Comments Submitted by the Center for LNG (CLNG) and its allied trades on the DOE Report, dated March 20, 2025, which identify these key flaws and provide corrections to areas of misleading information set out by the DOE Report (hereinafter, the “CLNG Comments”).¹ Further, in these comments, Freeport LNG provides key information omitted by the DOE Report that is necessary to fully and accurately evaluate the positive impacts that the U.S. LNG industry has on the American people and thus, to fully and accurately express the public benefits that are afforded to U.S. citizens by the U.S. LNG industry.

COMMENTS TO THE DOE STUDY

A. Even with its flaws, the DOE Study confirms continued LNG exports are in the public interest.

Even with the shortcomings of the DOE Study, it still shows that current and additional LNG exports are in the public interest. For example, the DOE Study states “[a]cross all scenarios, modeled U.S. domestic natural gas supply is sufficient to meet modeled global demand for U.S. LNG while continuing to meet domestic demand” and “[a]n increase in gross industrial output occurs with increased LNG exports across all oil and gas supply assumptions (by up to 1.3%, or \$203 billion, in 2050), driven by increased upstream oil and gas activity to meet increased demand for LNG.” The DOE Study also states that “natural gas production and the development of natural gas export infrastructure tends to increase employment in regions and communities where it occurs,” and “[o]il and gas production growth brings new revenues to local governments.”

These statements are essentially ignored (seemingly intentionally) in the cover letter published by former DOE Secretary Jennifer Granholm, which was released concurrently with the DOE Study (hereinafter, the “Granholm Statement”). The Granholm Statement casts confusion and doubt as to the significant benefits of LNG exports, even those specifically stated in the DOE Study itself. As such, the Granholm Statement should not, in any aspect, be used to misconstrue the actual findings of the DOE Study, which clearly confirm that LNG exports are in the public interest.

B. Macroeconomic impacts and benefits set out in the DOE Study have not been appropriately evaluated or lack context.

1. Domestic natural gas prices have benefited from LNG exports and will continue to do so.

The DOE Study warns of large increases in price volatility from increased LNG exports, using as support the price volatility observed in 2021/2022 in domestic natural gas prices. The DOE Study does not, however, properly attribute that volatility to COVID and COVID recovery, combined with the Russian invasion of Ukraine. Ultimately, the DOE Study calculates an increase in domestic prices of natural gas in the amount of \$1.09/MMBtu as of 2050. However, as is discussed in great detail in the CLNG Comments, the DOE Study has fundamental flaws in its calculations and forecasts of domestic natural gas prices.

¹ Freeport LNG notes that the CLNG Comments incorporate, and are supported by, a number of other studies, including (1) NERA’s Analysis of the U.S. Department of Energy’s Liquefied Natural Gas Study, dated March 14, 2025, (2) an analysis by The Perryman Group, entitled “*The Potential Economic and Fiscal Impact of Planned LNG Facilities along the Texas and Louisiana Gulf Coast*,” dated March 2025 and (3) an analysis by ToxStrategies (written by Dr. Jon Urban), entitled “*Comments on the U.S. Department of Energy’s Qualitative Literature Review on the Environmental and Community Effects of U.S. LNG Exports (2024 LNG Export Study, Appendix D)*,” dated March 20, 2025. Each of these three studies also provide appropriate critiques of the DOE Study and are consistent with the comments submitted by Freeport LNG.

Further, as the CLNG Comments also state, critics of LNG exports have been claiming for over a decade that LNG exports would raise U.S. natural gas prices, but historical data has proven those critics wrong time and time again. At the time that the initial wave of LNG liquefaction development began in the U.S. (e.g., early 2014), Henry Hub prices exceeded \$6 per MMBTU. Today, Henry Hub prices are more than one-third lower, at slightly above \$4 per MMBTU. So, it is clear that the expansion of domestic natural gas production, processing and transportation infrastructure for LNG exports has also provided positive benefit to domestic consumption, as domestic natural gas prices have significantly decreased during the time of the expansion of U.S. natural gas exports. As such, instead of limiting U.S. LNG exports, our country's policy should be to orderly continue to expand LNG exports, and its associated incremental production and transportation capacity, as history has proven that it supports the public interest by maintaining low domestic natural gas prices.

Even assuming the DOE Study's forecasts with respect to increases in domestic natural gas prices were correct, such forecasts are provided without appropriate context, giving the reader an impression that this level of price increase is a bad thing. In reality, a \$1.09/MMBtu increase in domestic natural gas prices, which would make domestic natural gas prices \$4.62/MMBtu in 2050, would be a generally positive, if not excellent, outcome for the United States. A \$4.62/MMBtu domestic price of natural gas 25 years from now would still be 3 times to 4 times lower than Europe's current natural gas price!² The DOE Study fails to provide this context. Such a disparity between U.S. natural gas prices and European prices would provide a consistent competitive advantage to the U.S. manufacturing industry over the European manufacturing industry in terms of raw material costs. Further, as domestic natural gas production continues to expand to support U.S. LNG exports, such production will inherently increase natural gas liquids production and oil production, thus supporting domestic manufacturing due to access to cheaper feedstocks of these raw materials. All of these forecasted impacts are in the public interest of the United States.

2. The DOE Study's conclusions on domestic economic impacts clearly show future U.S. LNG exports in the public interest.

While one must aggregate the data and put it in the appropriate context, the DOE Report estimates a significant macroeconomic benefit to the U.S. economy through future LNG exports, which clearly shows that such exports are in the public interest. The DOE Study estimates cumulative economic benefit directly from U.S. LNG exports of \$410 billion between 2020 and 2050. It also estimates cumulative incremental gross industrial output of \$893 billion from 2020 to 2050. Taken together, the DOE Study shows an aggregate benefit of \$1.3 trillion from 2020 to 2050. While the DOE Report still shows that the U.S. economy is significantly better off with a robust U.S. LNG export industry (and thus that the growth of this industry is in the public interest), the DOE Report also omits the "cost" of the extended pause, which could include increased use of coal in Europe, Europe importing "dirtier" LNG from other nations, and the loss of domestic jobs/economic benefits from additional U.S. LNG projects.³

² Further, the DOE Study's forecasted increase in price by 2050 calculates to an inflationary price increase of domestic natural gas of 31% over a 25-year period or 1.19% per year. This rate significantly under-paces historical inflationary rates (i.e., CPI over last 25 years has increased by 87%) as well as the Federal Reserve's target inflation rate of 2% per year, thereby evidencing that such a forecasted price increase would clearly be in the public benefit relative to the absence of such additional production. The DOE Study fails to provide this necessary context.

³ Several of these aspects are discussed later in these comments.

Studies performed by PwC⁴ and S&P Global⁵ compare favorably to the DOE Study in terms of the domestic economic benefits of the U.S. LNG industry. The S&P Global Phase 1 Study estimates that, between 2025 and 2040, the LNG industry benefits U.S. GDP by \$1.3 trillion. The PwC Study estimates that, in 2044, the GDP benefit of a robust U.S. LNG industry will be between \$122.5 – 215.7 billion in that year. Taking the lower of that range and averaging that benefit between 2023 and 2044, the aggregate GDP benefit would be \$1.66 trillion.

3. The DOE Study fails to properly include macro-level job creation data in its evaluation of the U.S. LNG industry's benefit to the public interest.

The DOE Study provides no formal estimates of job creation by the U.S. LNG industry. To the extent it does discuss job creation, it is with unsupported conclusory statements noting them to be temporary jobs or jobs that go to people or benefit people outside of the impacted communities. The DOE Study simply hand waves away any job increases (and associated increases in governmental revenue) as being offset by the associated increase in the demand and burden on local infrastructure (again without support). Overall, the DOE Study disregards the job creation benefits of U.S. LNG exports, with no attempt to assess the actual amount of job creation or quantify the benefit of such job creation.

Fortunately, the S&P Global Phase 1 Study and PwC Study do assess the macro-level job creation attributed to the U.S. LNG industry. From 2024 to 2040, the S&P Global Phase 1 Study notes incremental job creation of 495,000 direct or indirect jobs associated with the incremental U.S. LNG export demand. This job creation contributes to incremental U.S. business revenue of \$2.5 trillion, incremental expenditures into the U.S. economy of \$900 billion, incremental tax revenue to the government of \$165 billion and an average incremental increase to U.S. household income of \$250/year. The PwC Study calculates comparable estimates, with 516,000 direct and indirect jobs created by 2044 and \$379 billion in incremental tax and royalty revenue to federal, state and local governments (based upon averages between 2023 and 2044).

The overwhelming amount of job creation from a continued, robust U.S. LNG export industry, and the attendant benefits of such job creation to the U.S. economy and governmental revenues, was not properly accounted for in the DOE Study and clearly shows that continued U.S. LNG exports are in the public interest.

C. Localized and Community Impacts of the U.S. LNG Industry were marginalized by, or failed to be evaluated in, the DOE Study.

The DOE Study makes little attempt to accurately assess, or willfully disregards, the positive impacts that U.S. LNG facilities have on their local communities. It simply makes broad-brushed statements regarding community impacts, such as “[n]atural gas production and processing impacts upstream, midstream and downstream communities in harmful and beneficial ways” and asserts that “[s]ignificantly less research is available on the impact of LNG facilities themselves on local communities.” To the extent the DOE Study did make any effort to address impacts on local communities, it cited biased and unscientific submissions of the Sierra Club, which has a stated mission to end the production and use of fossil fuels, including LNG, and ignored significant publicly available and verifiable information from LNG export companies regarding

⁴ *Quantifying America's Economic and Energy Opportunity through LNG Exports*, October 2024.

⁵ *Major New US Industry at a Crossroads: A US LNG Impact Study – Phase 1*, December 2024.

their local impacts. The DOE Study displays expressed, anti-fossil fuel bias in its dismissive approach to local benefits of U.S. LNG and its reliance upon information sourced from biased special interest environmental groups (or their study-partner proxies) to support its qualitative conclusions regarding community impacts. Freeport LNG questions why DOE simply states research is not available for community impacts rather than seeking information from industry participants or local municipalities themselves, or taking advantage of the significant amount of publicly available information provided on U.S. LNG companies' websites⁶ that provide specific, measurable community contributions and benefits. One can only conclude that such omission was intentional—because the publicly available and objectively verifiable information would not support the DOE Study's narrative that LNG facilities negatively impact local communities.

The DOE Study seems to purposefully omit information illustrating the positive benefit that LNG companies provide in their local communities, thereby misleading the reader. Further, it is an affront to the time, effort and charitable donations made by hard-working Freeport LNG employees and contractors whose contributions make Brazoria County a strong and healthy community.

To clarify the record, below is a list of some of the benefits that Freeport LNG has, or will, provide to the local communities in which we operate (several of which were also noted in the introductory paragraphs to these comments and all of which were available through public sources that DOE could have utilized in their assessment):

- Freeport LNG is estimated to pay over \$2.6 billion in taxes to local taxing jurisdictions over its facility's 20-year initial operating life.
- Freeport LNG has (or will) pay over \$50 million to local municipalities under Industrial District Agreements, including:
 - \$9.6 million paid to-date to the Town of Quintana, funding municipal infrastructure, paying municipality expenses and enhancing emergency response capabilities,
 - \$15.55 million paid to-date to the City of Freeport to fund municipal services, fire and police services and emergency medical services,
 - \$4.69 million paid to-date to the City of Oyster Creek to fund municipal services, fire and police services and emergency medical services, and
 - \$21.8 million in committed future payments to the City of Oyster Creek and the City of Freeport for similar funding.
- Freeport LNG has made over \$13 million in additional payments and donations to local emergency responders for emergency response costs, training, participation in emergency response drills, etc.
- Freeport LNG has donated over \$500,000 to local hospital districts for construction of new hospitals and new emergency room buildings.
- Freeport LNG has made a \$500,000 multi-year pledge to the Brazosport Cares Food Pantry.
- Freeport LNG donated \$1 million to Brazosport College to fund the Freeport LNG Crafts Academy for training of a skilled labor pool.

⁶ See, e.g., <https://www.cheniere.com/our-responsibility/communities>, <https://freeportlng.com/scir-2023>, <https://cameronlng.com/community/>, and <https://ventureglobal.com/about-us/community-hub/>.

- In the past 5 years, Freeport LNG and its employees have combined to donate over \$8.5 million to scholarships and area charitable organizations, including Brazoria County United Way.
- Freeport LNG has committed \$3 million in donations to the Houston Area Urban League, My Brother's Keeper Houston and the Martin Luther King Celebration Committee – Brazoria County.
- Freeport LNG has committed \$500,000 to Houston Methodist Hospital's Translational Research Initiative.
- Freeport LNG donated land and monies to expand and upgrade the Gulf Coast Bird Observatory on Quintana Island.
- Freeport LNG donated funds to support building a playground made of recycled plastic at the Surfside Beach Jetty.
- Freeport LNG participates in the Houston Astros Community Leaders Program, wherein it has committed over \$1.5 million to the Houston Astros Foundation to support various community initiatives; part of this includes our sponsorship of a local underprivileged little league (Dixie Little League) to ensure that they have quality baseball and softball fields, coaching clinics, uniforms, equipment, etc.
- Freeport LNG provides substantial mutual aid for community and local industrial partners, including:
 - Providing and paying for emergency services training to Freeport Fire/EMS, Oyster Creek Volunteer Fire Department and Surfside Volunteer Fire Department. This includes training at Texas A&M's Fire/Rescue School (TEEX);
 - Planning and executing an annual site-wide functional drill with local emergency services/first responders; and
 - Being an active member of Community Awareness Emergency Response (CAER), wherein Freeport LNG will respond with mutual aid to other industrial and community partners.
- Freeport LNG made a \$250,000 donation to the Brazosport Center for the Arts and Sciences.
- Freeport LNG provided \$175,000 in grant money to Brazosport and Angleton ISDs for teacher classroom innovation.
- Freeport LNG made a \$50,000 donation to Quintana County Park for construction of a new Education Center.
- Freeport LNG purchased an ambient air monitoring station and provided 10 years of funding for the station to demonstrate to the public that ambient air quality near our pretreatment facility did not change with the operation of that facility.
- As a result of anticipated impacts to residents of Quintana Island during the construction of the Liquefaction Project, Freeport LNG offered residents an option of either (1) \$5,000 annual "impact payments" during the duration of construction or (2) Freeport LNG's purchase of the resident's home on the basis of its appraised fair market value plus \$25,000.
- Various other donations, such as new police patrol vehicles, radar guns, life-saving extraction equipment, beach patrol and rescue vehicle, marine security vessel, fire-fighting equipment, beach houses for SWAT training, etc.

In addition to these direct contributions to our local communities and municipalities, there are also substantial indirect benefits of Freeport LNG's operations in Brazoria County. For example, starting in 2025, for the first time in its 100-year history, Port Freeport has eliminated its tax assessment against the

public and has become self-sustained on the basis of its own revenues. Freeport LNG is Port Freeport's largest source of revenue. So, all taxpayers within Port Freeport's jurisdiction, which include many residents in Brazoria County, no longer pay property taxes to Port Freeport.

To further evaluate and measure the economic impacts of Freeport LNG's activities in Brazoria County, Impact DataSource was commissioned to assess the direct and indirect economic impact that Freeport LNG has to Brazoria County. That study, included as Appendix A hereto, shows that Freeport LNG's activities contributed almost \$640 million, directly and indirectly, to the Brazoria County economy in 2024 alone, as well as supported almost 1,100 jobs in the county and provided \$26.5 million in revenues for local taxing jurisdictions in 2024. Clearly, such significant economic benefits provided on an annual basis are in the public interest.

With respect to DOE's non-specific reference to localized "harmful" impacts, Freeport LNG notes that its air monitoring equipment (which has been in place for almost a decade and is monitored by an independent third party that reports data directly to the TCEQ) has not indicated any adverse change in air quality from Freeport LNG facilities. Further, air emissions from the Freeport LNG facilities are 90% lower than comparable emissions at other LNG facilities across the globe due to Freeport LNG's use of electric-drive motors. And, as noted by the CLNG Study, there is a robust and comprehensive regulatory framework that the Freeport LNG facilities must comply with that protects human health and the environment.

Clearly, the contributions of Freeport LNG to its local communities have positively benefited the availability and quality of police services, fire departments, ambulatory and emergency response services, hospital districts, area food pantries, minority advocacy groups, women's and children's shelters, community health programs, public school and community college resources, park systems and nature centers, and underprivileged children's sports programs—so much so that, rather than postulate, without objective, supporting evidence, that Freeport LNG has had an adverse impact on the underserved and underprivileged in the surrounding communities, the real question DOE should have analyzed is—how much worse off would these communities be without the benefits Freeport LNG provides?

D. THE DOE STUDY'S ENVIRONMENTAL AND EMISSIONS ANALYSIS IS FLAWED

The DOE Study states that LNG/natural gas will replace renewables, but provides no justification for this assertion. Empirical data shows that natural gas-fired power generation actually promotes increases in renewable power generation as a result of its complimentary capabilities in power production—natural gas-fired power generation is the only source of power that can promptly ramp up and ramp down to compliment the cyclical nature of wind and solar power generation facilities. The DOE Study relies on conclusions related to LNG price volatility to come to the conclusion that such volatility will cause countries to maintain reliance on coal, but the DOE Study does not explain how restraining U.S. LNG exports will help this situation – to the contrary, increased participation by the United States in global LNG markets would arguably help to stabilize global markets. The DOE Study notes that increases in U.S. LNG will go to China (and infers that this is detrimental to the U.S.), but fails to account for the fact that increases in U.S. LNG to China would mean increased fuel switching from coal to natural gas, thus reducing emissions in China. (As is well known, China currently has the largest GHG footprint in the entire world.) Further, the DOE Study fails to consider that the supply gap which would be created by restraining incremental U.S. LNG exports would be filled by "dirtier" LNG or natural gas from other countries.

Critically, with respect to that point, the S&P Global Phase 2 Study⁷ calculates the GHG intensity of other options available to Europe should U.S. LNG export capacity become constrained, determining that Russian LNG has 44% more GHG intensity than U.S. LNG and Russian pipeline gas has 59% more GHG intensity. Further, Albanian pipeline gas, a growing source for Europe, has a 161% greater GHG intensity than U.S. LNG. Last, the study calculates that European coal-based power production is 70% more GHG intense than power produced using U.S. LNG.

Overall, the S&P Global Phase 2 Study determines that continuing to halt the U.S. LNG projects that were previously “paused” by the Biden Administration would lead to an increase in worldwide GHG emissions of between 324-780 million tons of CO₂e as a result of it being replaced by “dirtier” sources of natural gas or coal-based power generation. So, while the DOE Study calculates an increase in worldwide GHG emissions from expanded U.S. LNG exports, it fails to consider the alternative case of the level of increases in GHG emissions should the U.S. not expand its LNG exports.

E. EXPANDED U.S. LNG EXPORTS IS OF SIGNIFICANT GEOPOLITICAL BENEFIT TO THE UNITED STATES AND ITS ALLIES

As is explained in detail in the CLNG Comments and the S&P Global Phase 1 Study, expanded U.S. LNG exports create significant geopolitical benefits to the U.S. and its allies. LNG exports serve the public interest of the United States by ensuring natural gas resources can be provided where they are needed, including to our allies without domestic energy supplies or in allied countries facing energy crises due to geopolitical events. As is noted by the International Energy Administration in its 2024 World Energy Outlook, the global economy needs “both resilient and reliable sources of energy and infrastructure to transport supply to customers” and that without this supply, “local or regional disruptions remain a distinct possibility in the face of risks from geopolitical tensions, technical failures and extreme weather events.” As is noted by the CLNG Comments, increased U.S. LNG exports vastly reduce these risks and have the potential to stave off crisis after crisis on the global stage.

CONCLUSION

Existing and incremental U.S. LNG projects are clearly in the public interest. Tangible, measurable benefits of existing projects show that they have been in the public interest and extrapolation of actual data continues to show new U.S. LNG exports would continue to be in the public interest. The DOE Study fails to accurately and completely assess the benefits of U.S. LNG exports, and its lack of context in certain conclusions, as well as its failure to utilize publicly available data in certain assessments, misleads the public on key metrics, including domestic pricing impacts, the benefits of these projects to local communities, and significant world-wide GHG increases if U.S. LNG exports were restricted.

Despite the DOE Study clearly showing continued U.S. LNG exports to be in the public interest, the actual benefits of the U.S. LNG export industry are significantly stronger and farther-reaching than it demonstrates. Any reliance upon, or consideration given to, the DOE Study’s findings, whether by the DOE, other governmental agencies or the courts, should acknowledge the apparent bias of the study, and be read in context with information provided by other available sources of information, including the PwC Study, the S&P Global Phase 1 and Phase 2 Studies, the Impact DataSource Study of Freeport LNG and the

⁷ *Major New US Industry at a Crossroads: A US LNG Impact Study – Phase 2*, March 2025.

three studies identified in Footnote 1 above, in order to achieve a more fulsome record upon which to base any conclusion.

APPENDIX A

**A Report of the Economic and Fiscal Impact During 2024 of Freeport LNG Liquefaction Facility & Export
Terminal on Brazoria County**

By

Impact DataSource, LLC