

Testimony of Charlie Riedl, Executive Director of the Center for LNG, before the U.S. Senate Committee on Energy and Natural Resources

Hearing to Examine the Administration's Pause on LNG Export Approvals and the Department of Energy's Process for Assessing LNG Export Applications

February 8, 2024

Introduction:

Good morning, Chairman Manchin, Ranking Member Barrasso, and members of the committee. Thank you for the opportunity to testify today. My name is Charlie Riedl, I am the Executive Director of the Center for LNG or CLNG.

CLNG advocates for public policies that advance the use of liquefied natural gas (LNG) and its export. A committee of the Natural Gas Supply Association (NGSA), CLNG represents the full LNG value chain, including LNG producers, shippers, terminal operators and developers, providing it with unique insight into the ways in which the vast potential of this abundant, clean and versatile resource can be fully realized around the world.

We appreciate the opportunity today to highlight the essential role of U.S. LNG, especially amid the Administration's "pause" on reviewing export applications. America's rich natural gas resources have positioned us as a global leader in LNG exports, but U.S. LNG is not just a commodity; it is pivotal for reducing global emissions, creating jobs, ensuring economic stability in a rapidly expanding sector and strengthening America's diplomatic ties. This is especially true with allies in Europe and Asia. At a time when energy security and climate change are critical global issues, the significance of U.S. LNG cannot be overstated.

Biden Administration officials have explained that the need to "pause" reviewing LNG export applications is based on concerns about domestic natural gas price impacts, changes in global energy markets and the greenhouse gas emissions associated with exports. Before exports began in 2016, the effects of U.S. LNG exports at home and abroad were theoretical and deserved thoughtful analysis as part of Department of Energy's public interest review. Today, after eight years of U.S. LNG exports, the benefits are no longer theoretical, and the Administration is ignoring the facts



While U.S. LNG exports reached record levels in 2023:

- Benchmark domestic natural gas prices remained at or near historic lows throughout 2023¹;
- Domestic natural gas production reached record levels at the end of 2023²;
- The U.S. economy grew at 2.5 percent in 2023³;
- Our European allies imported nearly half of all of their natural gas needs from the U.S. in 2023⁴;
- The International Energy Agency anticipates global natural gas demand to increase in 2024⁵;
- The Energy Information Administration anticipates global natural gas demand to increase through 2050⁶; and
- The world acknowledged at COP28 the role that natural gas plays in supporting the energy transition in nationally determined pathways.⁷

These facts and more refute the Administration's rationale for "pausing" review of LNG export applications. Furthermore, this "pause" is inconsistent with the DOE's longstanding policy and precedent and the free-market principles that have allowed our country to remain the world's most prosperous. In the LNG export approvals issued immediately following Vladmir Putin's invasion of Ukraine, the Biden Administration's DOE recognized that "under most circumstances, the market is the most efficient means of allocating natural gas supplies." With record domestic natural gas production, historically low domestic natural gas prices, robust economic growth and the global need to displace record coal demand, the question arises: why does the Biden Administration now want to reevaluate the benefits of LNG exports?

¹ https://www.eia.gov/todayinenergy/detail.php?id=61183#

² https://www.eia.gov/todayinenergy/detail.php?id=61263

³ https://www.bea.gov/news/2024/gross-domestic-product-fourth-quarter-and-year-2023-advance-estimate

⁴ https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/lng/112823-interactive-lng-europe-imports

⁵ https://www.iea.org/reports/gas-market-report-q1-2024

⁶ https://www.eia.gov/outlooks/ieo/

⁷ https://www.spglobal.com/commodityinsights/en/market-insights/latest-news/oil/121323-cop28-leaders-agree-to-transition-away-from-fossil-fuels-in-final-text

⁸ https://www.energy.gov/sites/default/files/2022-03/ord4799.pdf



Section I:

The Environmental and Climate Rationale for LNG, Renewable Energy

LNG provides a cleaner combustion process compared to other fossil fuels and represents a transformative aspect in the energy sector. Using natural gas for electricity generation emits approximately 50 to 60 percent less CO₂ than coal, 9 making LNG an essential component in the transition toward a lower-carbon energy mix. If we are going to keep up our concerted efforts to combat climate change, LNG is a key component and must be a part of global initiatives.

Innovation and technological advancements have provided the energy sector with several notable environmentally friendly improvements over the last decade, and the LNG industry's commitment to this progress has been relentless. Technologies like drones and AI for consistent methane emissions monitoring, measuring and prevention, carbon capture and sequestration, electric drive motors, in addition to the integration of renewables for LNG operations, have had a significant impact in reducing total greenhouse gas emissions. As such, LNG is a key component for accomplishing two of the United States' most important objectives: improving energy security and bolstering environmentally responsible and sustainable practices.

To meet our climate goals, we need LNG as a strategic asset in support of the deployment of renewable energy, as well as carbon capture infrastructure. Industry-led initiatives, continued innovation, international cooperation and supportive policies will allow us to maximize the climate benefits of LNG. We are committed to this path, and it will secure LNG's position in the global energy landscape while fostering economic growth and maintaining environmental stewardship.

Global Environmental Benefits, Challenges and Policy Implications

With such valuable environmental benefits, our LNG exports demand our attention and require supportive policies that acknowledge U.S. LNG as a geopolitical asset as well as its ability to help us reduce global greenhouse gases. We must advocate for policies that enhance global energy security, support developing countries in

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⁹ https://www.eia.gov/todayinenergy/detail.php?id=48296



their transition to cleaner energy production and solidify LNG as an essential piece of the energy mix.

Section II:

Efficiency in Supply and Demand Response; Consumer and Producer Benefits

The U.S. natural gas industry has shown remarkable flexibility in responding to global price and demand signals. The growth of LNG exports has been a strong market driver, promoting domestic natural gas production underpinned by our enormous natural gas supply.

The ways in which our natural gas production met the demand surges that occurred in 2022-2023 provide a compelling illustration of the market's resilience and adaptability. Energy Information Administration (EIA) data¹⁰ shows that natural gas prices decreased during periods of increased production, illustrating the advantages of a market-driven approach.

Further, the strength of our export market has been instrumental in ensuring that Henry Hub (domestic) natural gas prices remain competitive, projected to average under \$3.00 per MMBtu in 2024 and 2025, despite increased consumption and exports. At the same time, the U.S. achieved record-high dry natural gas production averaging 104 billion cubic feet per day (Bcf/d) in 2023, which is 4% higher than the 2022 annual average. LNG exports are met through increased production, which also maintains supply levels that support competitive domestic prices. In fact, in 2023, Henry Hub natural gas prices were the lowest since mid-2020, even as LNG and natural gas pipeline exports grew. Restrictions on LNG exports could lead to fewer consumer choices and potentially higher domestic prices due to less production at home.

By adjusting production to meet both domestic and international needs, especially in moments of heightened demand, our market has tremendous flexibility and has been able to maintain a steady equilibrium. This is one prime example of our industry's ability to balance itself, largely through boosted production rather than government intervention.

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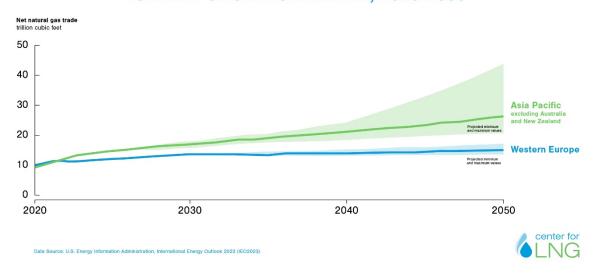
¹⁰ https://www.eia.gov/naturalgas/weekly/archivenew ngwu/2023/12 14/

¹¹ EIA Today in Energy, Jan. 4, 2024, https://www.eia.gov/todayinenergy/detail.php?id=61183

¹² https://www.eia.gov/todayinenergy/detail.php?id=61183#



ASIA AND EUROPE IMPORT MORE NATURAL GAS TO MEET GROWING DEMAND. 2020-2050



Economic Growth and Job Creation

At home, the LNG industry is bolstering the national economy. It is creating jobs for Americans in the industry itself, from extraction to distribution to export, as well as the many industries it supports, like manufacturing and construction. In fact, a strong LNG export market enhances the competitiveness of U.S.-based manufacturers.

The construction of an LNG export facility costs tens of billions of dollars in labor and materials. During peak construction periods, companies employ between 2,000 and 3,000 workers to build their facilities. ¹³ Building LNG export terminals, which can take 6 to 10 years to complete, shows that we are carefully planning and investing in our country's production capacity, which helps promote long-term economic growth. This type of infrastructure development demonstrates our commitment to obtaining and maintaining a strong and robust economic future.

The studies conducted by DOE illustrate the positive ripple effects of LNG exports across the entire U.S. economy. An increase in exports has been shown to

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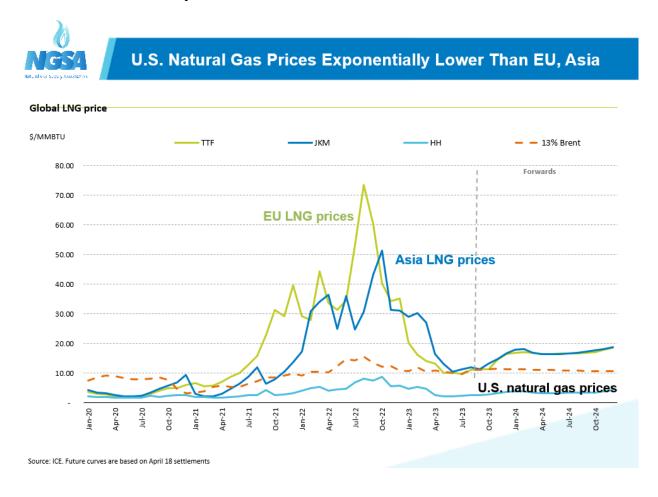
¹³ https://www.ferc.gov/sites/default/files/2020-05/corpuschristiFEIS.pdf



substantially enhance economic output by stabilizing domestic markets and labor income, driving billions of dollars in new investments and supporting tens of thousands more throughout the supply chain.

The construction and operation of LNG facilities is dictated by market conditions, not the cumulative export capacity from DOE applications, and offers a great number of valuable employment opportunities. These jobs are critical pieces of our local economies and provide good-paying opportunities that bolster economic resilience and fuel community development.

Additionally, natural gas can serve as a safeguard against inflation. With a healthy and consistent regulatory framework for exports that bolster global security, natural gas can consequently help moderate energy costs. A diverse energy mix is key for stabilizing prices and can serve as a strong buffer against market volatility — natural gas, to be clear, is an essential and irreplaceable part of this equation and will remain so for many decades to come.





Continual growth of LNG exports is essential in stabilizing the domestic natural gas market. This encourages production while also advancing environmental responsibility by promoting emissions reductions across the value chain, most notably domestic methane emissions. The environmental benefits of LNG, especially when it comes to emissions reduction, are a notable part of our domestic and foreign policy. Our economic growth is clearly aligned with environmental responsibility. Outside of natural gas, there are very few examples of commodities that serve the U.S. in this way.

Contribution to National and International Goals

The benefits of using natural gas are visible right here at home, where power sector emissions in the U.S. have dropped dramatically over the past two decades as natural gas has replaced more carbon-intense fuel as the most widely-used source of electricity and facilitated greater use of renewables.

There is a strong argument to support other countries in reducing their reliance on higher-emissions fuels and addressing climate change challenges by incorporating natural gas into their energy portfolios. The Department of Energy's Life Cycle Assessment (LCA) of Greenhouse Gas (GHG) emissions study¹⁴ shows that when U.S. LNG exports are used for electricity generation in Asian and European markets, it reduces the overall GHG emissions generated by their current fuel choices.¹⁵ This fact helps underpin our status as a necessary agent in worldwide emissions reductions. The U.S. can continue to be a sustainable energy leader while enhancing our ability to ensure energy security for our allies as long as U.S. LNG exports continue to grow.

Our allies' interest in U.S. LNG is what is propelling the industry forward. Existing U.S. LNG export facilities are consistently operating at or above capacity. This means every bit of LNG we can produce is being purchased. We cannot produce more LNG without expanding existing facilities or building new ones. In this way, and contrary to one of the stated objectives by The White House when announcing

¹⁴https://netl.doe.gov/projects/files/LIFECYCLEGREENHOUSEGASPERSPECTIVEONEXPORTINGLIQUEFIE DNATURALGASFROMTHEUNITEDSTATES2019UPD 091219.pdf

¹⁵ Department of Energy, https://www.energy.gov/fecm/articles/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states



this pause on LNG export approvals, the administration is hurting worldwide climate efforts.

LNG exports also play an essential role in the global effort to reduce emissions and phase out more-polluting fuels because they promote the growth of renewable energy. As a partner with renewables, LNG serves as an irreplaceable and valuable component in the energy road ahead. Unlike other baseload generation, natural gas's flexibility and reliability as a power source, can support renewables like wind and solar. This capability is essential if grids around the world are to maintain stability and keep the lights on during the energy transition.

This is in alignment with international climate goals and mirrors the U.S.'s commitment to seek out and secure cleaner energy alternatives. As stewards of energy policy and as advocates for environmental and economic progress, it is clear to me that the advantages of LNG exports are quite diverse — exports contribute to GDP growth, create jobs and heighten energy security. While providing reliable, environmentally responsible energy, LNG exports also serve as a catalyst for international collaboration, strengthening our alliances with key partners and promoting renewable power generation.

Section III:

U.S. LNG Exports for Energy Security

Vladimir Putin's sudden termination of natural gas flows to Europe in conjunction with the invasion of Ukraine served as a bold reminder of the connection between energy security and national and economic security. The Biden Administration worked with the European Commission to backfill lost Russian natural gas with U.S. LNG. At that time in 2022, the Biden Administration committed to "maintaining an enabling regulatory environment with procedures to review and expeditiously act upon applications to permit any additional export LNG capacities that would be needed to meet this emergency energy security objective and support the RePowerEU goals, affirming the joint resolve to terminate EU dependence on Russian fossil fuels by 2027." What a difference less than two years later from the Biden Administration. There is no resolution in the war in Ukraine and not

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https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/25/joint-statement-between-the-united-states-and-the-european-commission-on-european-energy-security/



nearly enough time has passed for the structural changes outlined in the joint statement between the U.S. and the European Commission. The "pause" on export applications is an about-face in policy contrary to the Biden Administration's commitments to our European allies.

Recent global events and turmoil have pushed the subject of energy security to the forefront of international discourse. During these times, U.S. LNG exports have emerged as a reliable and stabilizing force among so much uncertainty. When Russia invaded Ukraine, U.S. LNG helped support European countries with more than 2 trillion cubic feet of natural gas in the first nine months of 2023 alone. These actions, totaling over 800 cargoes and representing a 141% increase in exports from 2021, demonstrated our commitment to global energy security while underscoring the importance of U.S. LNG in maintaining our European allies' energy autonomy.

The Director General of the European Commission, Ditte Juul Jørgensen, has clearly stated the importance of U.S. LNG for Europe in the decades ahead. Jørgensen points to the strategic value of LNG exports in ensuring energy security for Europe and others. If we restrict our export capacities, we limit our ability to support our allies and diminish both the U.S.'s potential to provide global energy security and our influential leadership position in the international energy market.

The U.S. has committed to significantly increase its LNG exports to the European Union by an additional 50 billion cubic meters per annum by 2030.¹⁷ Pausing our export approvals would likely compromise these commitments and tragically undermine the U.S.'s diplomatic standing.

Further, our LNG exports also contribute to balancing the U.S. trade deficit while meeting the energy needs of the global market. We will continue to see substantial growth in the demand for natural gas through 2050, especially in Asia and Europe, ¹⁸ and in these ways, U.S. LNG exports are indispensable. From its role in global politics and environmental stability to energy security, LNG is one of the strongest and most abundant assets the U.S. has to meet our climate goals. Temporarily pausing our LNG export applications would likely have drastic

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¹⁷ https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/25/fact-sheet-united-states-and-european-commission-announce-task-force-to-reduce-europes-dependence-on-russian-fossil-fuels/

¹⁸ https://www.eia.gov/todayinenergy/detail.php?id=57000



adverse consequences on our geopolitical influence, and it is imperative for policymakers to consider actions that only ensure the continued expansion and stability of U.S. LNG.

The message is clear: U.S. LNG exports are as much a trade commodity as they are a strategic asset in the geopolitical arena. They are a sign of our commitment to our allies and a signal that the U.S. is prepared to lead the way in all things energy security and environmental stewardship.

The Importance of Regulatory Certainty

Capital-intensive LNG export facilities rely on regulatory certainty. Pauses and shifts in regulatory frameworks can divert capital to other nations and ultimately stall our domestic innovation and growth. Without regulatory certainty, we undermine the confidence of investors and developers who rely on stable conditions to carry out projects.

A case in point is the Department of the Interior's extended "pause" on both onshore and offshore leasing sales after the President took office. In both instances, we witnessed a series of negative effects, including revenue loss, job losses, decline, investment uncertainty and legal challenges.

In light of the prominent role natural gas will continue to play in the global energy mix of the future, the absence of American regulatory certainty will no doubt motivate potential international customers to seek out more reliable sources of this commodity — likely from producers who value environmental stewardship far less than the U.S.

Section IV:

Community Engagement and Environmental Justice, Benefits to Local Communities

U.S. LNG companies have shown their steadfast commitment to community engagement. This has largely been through meticulous project planning and ongoing social risk assessments. They are continuously working to investigate and mitigate any impact LNG projects may have on local communities. By facilitating public safety workshops, hosting open houses and providing direct feedback mechanisms, they have made local communities a top priority. With these



measures, LNG companies can effectively address any issues throughout a project's lifecycle.

LNG projects also offer communities multifaceted benefits. In the past, these projects have created direct employment opportunities and fostered supply chain involvement. But that's not all, these projects also contribute to local economies and the social fabric by way of mentorship programs, internships, charitable initiatives and investments in community safety and infrastructure, boosting local tax revenues. LNG companies have also provided funding for fire training, emergency planning and investments in first responder agencies, improving the safety and well-being of the communities in which they operate.

Section V:

Summary and Final Thoughts on the Strategic Importance of Continuing to Support LNG Export Initiatives

This document has highlighted with detail the benefits of U.S. LNG exports both domestically and internationally. Pausing LNG export approvals will have negative consequences here and abroad.

The indispensable nature of U.S. LNG is underscored by some of its major impacts: it serves as a cornerstone for environmental stewardship, a catalyst for economic expansion and job creation and acts at a linchpin for enhancing global energy security. These benefits demonstrate U.S. LNG's essential role in addressing today's most pressing challenges, including climate change and the quest for reliable, sustainable energy sources. As we navigate these global discussions, the strategic importance of U.S. LNG in fostering a more secure, prosperous and environmentally sustainable world demands our attention and support.

With this pause, we risk damaging our relationships with our allies, especially when we undermine commitments to assist other nations with their energy security. Today, this is especially relevant with our commitment to Europe in the wake of Russia's invasion of Ukraine. The U.S. will create uncertainty about its reliability, undermine long-term agreements and investments and destabilize domestic and international global energy markets, resulting in the loss of jobs and endangering future energy projects. Halting U.S. export approvals also will undermine the



U.S.'s leadership in global energy markets, suggesting that the U.S. is no longer a reliable energy supplier, and neutralize our influence on international energy policies.

In addition, a pause will put our economy at risk. LNG exports are met through increased production, which also maintains supply levels that support competitive domestic prices. Restrictions on LNG exports could lead to fewer consumer choices and potentially higher domestic prices due to less production at home.

Lastly, by not producing enough natural gas and U.S. exported LNG, we are no longer doing our part to reduce global emissions. As we know, the battle against climate change waits for no one, and the benefits to global emissions reductions provided by U.S. natural gas and LNG companies.