

LNG Build-Out in Mexico Based on U.S. Gas: Rising Risks for Consumers in the U.S. and Mexico

Clark Williams Derry, Energy Finance Analyst, IEEFA Suzanne Mattei, Energy Policy Analyst, IEEFA



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Key Findings

Building new LNG export terminals in Mexico could raise the price of both natural gas and electricity for Mexican consumers and businesses.

The growth of LNG exports will increase price volatility in North American energy markets, making it harder for homes, businesses and industries to plan their energy purchases.

Global markets may soon have an oversupply of LNG, presenting market risks for new LNG projects proposed to be built in Mexico.

The Mexican LNG industry faces the potential for disruption by forces outside of Mexico's control, including extreme weather as well as trade, regulatory, and legal decisions in the U.S.





Executive Summary

North America's liquefied natural gas (LNG) boom jeopardizes the long-term stability of the continent's gas and electricity markets, threatening to increase consumer gas and utility bills in both the United States and Mexico.

At the start of 2016, there were no active LNG export terminals in North America. Fast forward to today, and the U.S. has skyrocketed to the top of the global LNG export leaderboard, overtaking industry giants Australia and Qatar in 2023 and expanding its lead in 2024. To date, the U.S. has opened eight massive LNG export terminals—industrial behemoths capable of shipping out almost 15 percent of the nation's total gas production. One Mexican terminal that relies on U.S. gas came online last year, and a second Mexican LNG project is under construction. The LNG industry hopes to further expand its footprint, with dozens of new projects proposed on the U.S. Gulf Coast and on Mexico's Pacific coast.

The meteoric rise in LNG exports has exposed North America to the increased volatility and higher prices of global gas markets, raising serious concerns for the proposed buildout of Mexican LNG export terminals:

- Ramping up LNG exports will likely make both gas and electricity more expensive in Mexico.
- Rising LNG exports can destabilize Mexican gas and electricity markets, creating more volatility and undermining the ability of Mexican businesses to count on predictable energy prices.
- Global markets may soon have an oversupply of LNG, posing market risks for new LNG projects in Mexico.
- Proposed Mexican LNG projects can be disrupted by forces outside Mexico's control, including extreme weather, regulatory or political disruptions, and LNG market manipulation.

Analyses by U.S. government agencies and independent experts consistently find that that the growth of U.S. LNG exports will raise wholesale gas prices in the interconnected North American gas market, comprising much of the U.S. and Mexico. These price increases would create a major transfer of wealth from gas purchasers, including homes, businesses, and electric utilities that buy gas, to oil and gas producers located primarily in the U.S. The gas industry rarely talks publicly about these risks. But Mexican gas consumers and policymakers should be fully cognizant of the hazards that LNG exports pose to the stability of North American energy markets, and should be wary of the LNG industry's plans to build additional export terminals in Mexico.

Background

Several companies are seeking to build and operate LNG terminals in Mexico to export natural gas produced in the United States to Asia and other global markets.



The process of exporting LNG is complicated and costly. The gas must travel through pipelines that are often built specifically to serve export facilities. At the liquefaction plant, gas must be pressurized and cooled to -162°C (or -260°F) to convert it into a liquid, a process that can consume 10% or more of the gas delivered to the liquefaction plant.¹ Liquefaction reduces the volume of the gas by a factor of 600 or more, which facilitate shipping on specialized ocean-going vessels.² The liquefied gas is a frigid, colorless and odorless liquid that U.S. regulations classify as a hazardous material.^{3,4}

The U.S. natural gas industry is seeking new markets to consume the supply the industry produces by hydrofracturing (commonly known as fracking). Spurred by fracking, U.S. gas production has increased over the last 14 years at the fastest rate in history. In West Texas, the gas is often an unwanted by-product of oil extraction, and gas prices sometimes turn negative—meaning that producers have to pay to have their gas taken away.⁵ The glut of low-cost gas has spurred U.S. gas producers to look for export outlets for their wares.

The emerging markets of Asia are widely expected to be the major locus of global gas demand growth. Yet the existing U.S. LNG export terminals are all located on the Atlantic Coast. Reaching Asian markets requires transporting the LNG through the Panama Canal or—when the canal's low water level makes it an unreliable option—around Africa or South America or through the Suez Canal. Expensive shipping has hampered the competitiveness of U.S. LNG in Asian markets, spurring the U.S. gas industry to search for LNG export outlets on the Pacific Coast that offer a shorter and less expensive route to Asia.⁶ With little deepwater port space available in the heavily developed ports in California, Oregon, and Washington, the industry has turned its sights on Mexico for a shorter and less expensive journey to Pacific Rim LNG markets.

Approvals and extensions of approvals for export of U.S.-generated natural gas are governed by the U.S. Department of Energy (U.S. DOE), which has sole authority to approve or disapprove the import or export of natural gas. Federal law stipulates that the agency must grant approval "unless … it finds that the proposed exportation or importation will not be consistent with the public interest."⁷ Exporting gas to country with which the U.S. has a free trade agreement "shall be deemed to be consistent with the public interest" and must be approved.⁸ Mexico has a free trade agreement with the United States,⁹ so, export of gas directly to Mexico solely for use in Mexico would fall under the protection of the free trade agreement. Mexican LNG export terminals, however, would "re-export"

² Ibid.

⁴ National Archives. <u>49 CFR §172.101</u>: Hazardous Materials. Accessed March 11, 2025.

⁹ The <u>United States-Mexico-Canada Agreement (USMCA)</u>, took effect on July 1, 2020, replacing the former North American Free Trade Agreement (NAFTA) that had been in effect since 1994.



¹ U.S. Energy Information Administration. <u>Natural Gas Explained: Liquified Natural Gas</u>. Updated June 21, 2024.

³ Odorants must be added to methane gas before it is distributed by utilities for end users, so the smell can alert people to natural gas leaks from heating systems, kitchen stoves or other appliances. <u>*Ibid.*</u>

⁵ IEEFA. <u>Why Are U.S. LNG Companies So Interested in Mexico?</u> September 4, 2024.

⁶ <u>Ibid.</u> 7 Office of the Levy Devision O

⁷ Office of the Law Revision Council. <u>15 USC § 717b(a)</u>. Accessed March 11, 2025.

⁸ Office of the Law Revision Council. <u>15 U.S.C.§717b(c)</u>. Accessed March 11, 2025. Applications for the Department's approval must be filed at least 90 days before the proposed import or export. 10 CFR § 590.201.

the gas from Mexico, including to countries lacking free trade agreements with the United States.¹⁰ The U.S. DOE must therefore declare gas exports to be "in the public interest" for non-free-tradeagreement countries,¹¹ considering both environmental and economic factors. A major area of inquiry in this evaluation is the effect of exports on U.S. domestic gas prices.¹²

LNG Exports Raise Natural Gas and Electricity Prices in Both the U.S. and Mexico

Over the past decade LNG exports have become a major source of new demand for natural gas in North America. In both 2023 and 2024, the U.S. LNG industry exported the equivalent of 12 percent of all gas produced in the country, up from less than 1 percent in 2016, the first year of the export boom.¹³ LNG exports have risen faster than any other category of gas demand since 2015—even faster than demand from the electricity sector, at a time when natural gas increasingly supplanted coal in the nation's generation mix. (See Figure 1.)

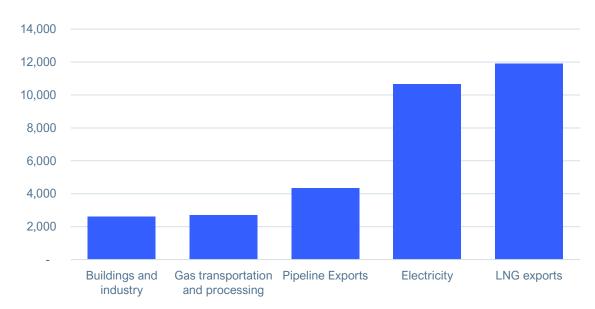


Figure 1: Change in U.S. Gas Demand, Million Cubic Feet, 2015–24

Source: EIA, Natural Gas Consumption by End Use, U.S. Natural Gas Exports and Re-Exports by Country.

¹¹ See: U.S. DOE Office of Fossil Energy. <u>Opinion and Order granting long-term, multi-contract authorization to export U.S.-sourced natural gas by pipeline to Mexico for liquefaction and re-export in the form of liquefied natural gas to non-free trade agreement countries. In re Mexico Pacific Limited LLC. FE Docket No. 18070-LNG, Order No. 4312. December 14, 2018.
¹² Ibid.</u>



¹⁰ Currently, the United States has comprehensive free trade agreements in place with only 20 countries: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore. (The U.S. has an agreement with Japan, but it focuses on critical minerals.) Office of the United States Trade Representative. Free Trade Agreements. Accessed March 10, 2025.

¹³ Energy Information Administration. <u>Natural Gas Gross Withdrawals and Production</u>. Accessed March 11, 2025.

As more LNG terminals come online over the coming years, the share of U.S. gas destined for overseas markets will rise, likely topping 20 percent by 2030. Gas market analysts expect North American gas prices to increase as export demand grows. Because natural gas prices are determined by supply and demand, increased demand leads to higher prices. This is especially true because, in North America's profit-driven energy system, oil companies typically drill their most productive wells and lowest cost reserves before moving on to more expensive and less productive reserves. After companies have drilled their most productive wells and depleted their lower-cost reserves, they will wait for wholesale prices to rise before exploiting more expensive reserves.

The faster oil companies deplete their cheapest gas reserves, the sooner consumers will see higher prices for their gas and electricity bills. It also means higher fuel costs for electric utilities, who pass these costs on to their consumers. Some analysts warn that the shale industry may have already exploited the best wells, positing that "the shale gas basins are simply running out of high-quality drilling inventory," leading to significant price increases as the best acreage is further depleted.¹⁴

These LNG-led price hikes will extend beyond U.S. borders, affecting both U.S. and Mexican consumers alike. The U.S. supplies Mexico with more than 70 percent of its gas,¹⁵ and the price of gas in Mexico has historically been linked to U.S. gas price indices in Texas and the southern U.S.¹⁶ The same gas fields—including the Permian, Eagle Ford, Haynesville, San Juan, and Barnett basins—that provide gas to U.S. and Mexican consumers also supply LNG plants in both countries. This means that faster growth in North American LNG exports will ultimately mean more competition for gas, and higher prices throughout the continent's interconnected gas markets. Consumers in both Mexico and the U.S. will pay the price for the LNG industry's export ambitions, regardless of whether new export terminals are located in the U.S. or Mexico.

U.S. government analyses have repeatedly and consistently described how LNG exports will boost domestic gas prices.

- A 2012 U.S. Energy Information Administration (EIA) study noted: "Increased natural gas exports lead to increased natural gas prices. Larger export levels lead to larger domestic price increases, while rapid increases in export levels lead to large initial price increases."¹⁷
- A 2018 study commissioned by the U.S. Department of Energy (U.S. DOE) asserted that "producing incremental natural gas volumes to support natural gas exports will increase the marginal cost of supplying natural gas and therefore raise domestic natural gas prices."¹⁸



¹⁴ Goehring & Rozencwajg. <u>US Natural Gas Production is Plummeting</u>. November 7, 2024

¹⁵ Fitch Ratings. <u>Mexico's reliance on U.S. natural gas to grow amid rising trade tensions</u>. February 20, 2025.

¹⁶ Energy Policy. <u>Mexico and U.S. power systems under variations in natural gas prices</u>. September 2021.

¹⁷ EIA. Effect of Increased Natural Gas Exports on Domestic Energy Markets. January 2012, p. 6.

¹⁸ NERA Economic Consulting. <u>Macroeconomic outcomes of market determined levels of U.S. LNG exports</u>. Prepared for U.S. DOE. June 7, 2018, p. 64.

- The EIA's 2023 Annual Energy Outlook reported that a faster increase in LNG export would tend to increase long-term wholesale gas prices.¹⁹
- Summarizing a 2024 U.S. DOE report,²⁰ former Energy Secretary Jennifer Granholm asserted that "unfettered exports of LNG would increase wholesale domestic natural gas prices by over 30%."²¹

The fact that LNG exports raise domestic gas prices is also clearly understood by gas industry analysts and executives. Even before the LNG boom was underway, many industry analysts supported LNG exports precisely because of their potential to boost wholesale domestic gas prices. For the gas industry, higher North American gas prices have long served as a key financial rationale for the industry's push to export more gas.

- A 2012 Forbes article argued that LNG exports would benefit U.S. gas producers because: "[A]ccess to large export markets will ... increase natural gas prices."²²
- A 2017 Bloomberg article echoed the argument: "Easing access to foreign markets is the key to lifting depressed prices" for U.S. natural gas.²³
- Bloomberg repeated the observation in 2023, pointing out that "New LNG export plants will bring relief to US producers," while ignoring the fact that prices are often a zero-sum game: Price relief for producers typically equates to price pain for consumers.²⁴
- A 2025 gas market analysis by Natural Gas Intelligence, a leading gas-industry trade publication, predicted stronger results of the gas industry in 2025, with "resilient power demand growth and new LNG export terminals boosting price outlooks."²⁵
- Christipher Lenton, a senior editor for Mexico and Latin America with Natural Gas Intelligence, pointed out that the combination of rising LNG exports and rising pipeline gas shipments to Mexico means "you're looking at 32 or 33 Bcf of natural gas per day that's being produced in the U.S. that goes to the export market by 2027 or 2028," Lenton said. "That will be a serious driver of natural gas pricing and have direct implications in the market."²⁶

Rising gas prices will also affect the price of electricity. In Mexico, gas-fired power plants produced roughly 70 percent of Mexico's electricity.²⁷ Increases in Mexico's natural gas prices will lead to increased prices for electric power for Mexican homes and businesses.



 ¹⁹ EIA. <u>AEO2023 Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market.</u> May 2023.
 ²⁰ U.S. DOE. 2024 LNG Export Study, <u>Appendix B: Domestic energy, economic, and GHG assessment of U.S. LNG exports</u>. December 2024.

²¹ U.S. DOE. Statement from U.S. Secretary of Energy Jennifer M. Granholm on Updated Final Analyses. December 17, 2024.

²² Forbes. The U.S. has a natural gas glut: Why exporting it as LNG is a good idea. June 13, 2012.

²³ Bloomberg. <u>Natural gas exports can solve U.S. energy glut</u>. May 7, 2017.

²⁴ Bloomberg. <u>America's ballooning gas output needs a release valve</u>. March 30, 2023.

²⁵ Natural Gas Intelligence. <u>Fueling the Future; Natural gas to shine amid rising power and export demand</u>. 2025, p. 1.

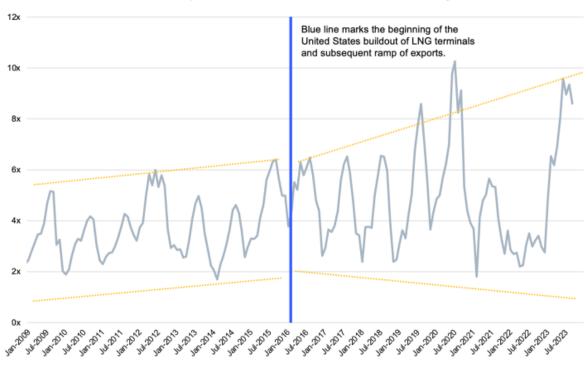
²⁶ Natural Gas Intelligence, LNG Buildout, Mexico Exports Seen Driving Natural Gas Price Resurgence, November 12, 2024.

²⁷ Fitch Ratings. <u>Mexico's reliance on U.S. Natural gas to grow amid rising trade tensions</u>. February 20, 2025.

Rising LNG Exports Threaten To Destabilize Mexican Gas and Electricity Markets

The expansion of liquefied natural gas (LNG) exports has increasingly intertwined North America's natural gas markets with the volatility of global energy markets. For North American consumers, the result has been price spikes and heightened volatility in gas and electricity bills. Residential gas consumers in the U.S. have already seen the effects directly, with residential gas bills becoming volatile as the export boom advanced. (See Figure 2.)²⁸

Figure 2: U.S. Residential Natural Gas Prices as a Multiple of Wholesale Prices



The Multiple for Residential Prices Widens With Volatility

Source: IEEFA, based on U.S. Energy Information Administration Data

Before the advent of industrial-scale LNG exports, the gas markets of Mexico and the Lower 48 U.S. states were physically isolated from global gas market volatility. Price disruptions in European or Asian gas markets had little to no effect on consumers in the United States, Mexico, and Canada. But the meteoric growth of LNG exports has now linked North American gas prices to the chaos of international gas markets. Today, a cold snap in China, a conflict in Europe, or a pipeline mishap



²⁸ IEEFA. U.S. Residential Gas Consumers Bear Brunt of LNG Exports. March 2024.

anywhere else in the world has the potential to boost North American natural gas prices, subjecting North America's gas and electricity consumers to unexpected price shocks.

Consumers saw this dynamic unfold to dramatic effect in 2021 and 2022. Starting in late 2021—in the runup to its invasion of Ukraine—Russia began to manipulate Europe's energy markets,²⁹ trimming pipeline gas shipments and emptying gas storage facilities on the continent.³⁰ European gas prices spiked amid the shortages. Many gas buyers on the continent ramped up their LNG purchases to backfill the missing fuel supplies. Europe's gas market contagion quickly spread to Asia, where buyers from South Korea, Japan, and Taiwan entered a bidding war with Europe for the limited global supply of LNG. In both Europe and Asia, spot prices for gas soared to previously unimaginable highs.

This price contagion spread to North America as well. As global LNG prices spiked, U.S. LNG exporters bought all the gas they could handle, hoping to reap outsized profits by selling U.S. gas into overheated global markets. Surging exports, in turn, shortchanged domestic gas supplies. As LNG exports rose, U.S. gas stockpiles fell to multi-year lows,³¹ and wholesale gas prices rocketed to their highest levels in more than a decade.³² The gas industry reaped record profits, largely at the expense of homes, businesses, and industries who paid higher fuel bills.

All told, the Russia-induced price spikes cost U.S. households and gas buyers roughly \$111 billion from late 2021 through the end of 2022.³³ This was a *de facto* transfer of wealth from gas consumers to gas producers. U.S. homeowners and renters paid gas companies an additional \$14 billion during the market havoc. Office buildings and other commercial users spent an additional \$11 billion. U.S. industrial gas users transferred about \$33 billion to oil and gas companies. And electric utilities paid a whopping \$50 billion more for their fuel.

It is no exaggeration to say that LNG exports fueled the utility bill inflation that captured headlines throughout North America. Mexican consumers paid the price as well, with the price of pipeline gas exports from the U.S. to Mexico rising in tandem with U.S. wholesale prices.

²⁹ Martens Centre. <u>How Gazprom manipulated the EU gas market</u>. February 3, 2022.

³⁰ Financial Times. Gazprom's low gas storage levels fuel questions over Russia's supply to Europe. October 27, 2021.

³¹ EIA. <u>Weekly natural gas storage report</u>. March 6, 2025.

³² EIA. <u>Natural Gas: Henry Hub Natural Gas Spot Price</u>. Accessed March 12, 2025.

³³ IEEFA. Gas exports cost U.S. consumers more than \$100 billion over 16-month period. January 29, 2024.

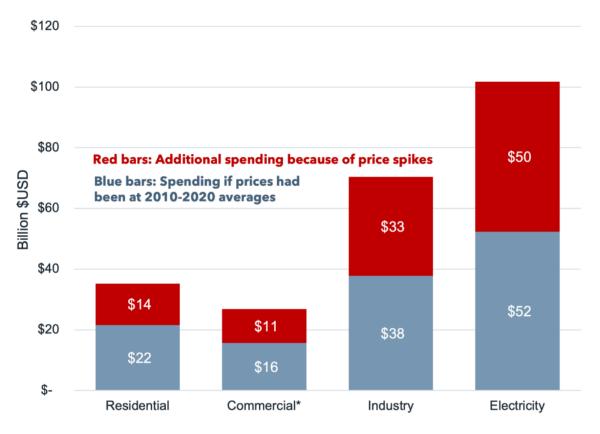


Figure 3: U.S. Spending on Natural Gas by Sector, September 2021-December 2022

* Commercial includes vehicle usage.

Source: IEEFA estimates based on U.S. Energy Information Administration data

The continued buildout of the North American LNG export industry could foretell a return to the high and volatile prices of 2021 and 2022. LNG exports have clearly become a route by which global energy disruptions can affect North American gas and electricity markets. Indeed, the recent rampup of the Plaquemines LNG facility in Louisiana has caused U.S. LNG exports to hit new highs which has corresponded to a near-doubling of U.S. wholesale gas prices.^{34, 35}



³⁴ Energy Information Administration. <u>The eighth U.S. liquefied natural gas export terminal, Plaquemines LNG, ships first cargo</u>. January 13, 2025.

³⁵ Energy Information Administration. <u>Henry Hub Natural Gas Spot Price</u>. Accessed March 12, 2025.

Global Markets May Soon Have an Oversupply of LNG, Creating Market Risk for New Export Projects Proposed in Mexico

The global LNG industry is in the early stages of a tidal wave of new liquefaction projects. Counting only projects that are under construction or approved by financially capable backers, IEEFA anticipates that global LNG production capacity will grow by roughly 180 MTPA from 2025 through 2028—an increase of almost 40%, the fastest capacity growth in the global LNG industry's brief history. (See Figure 4.)

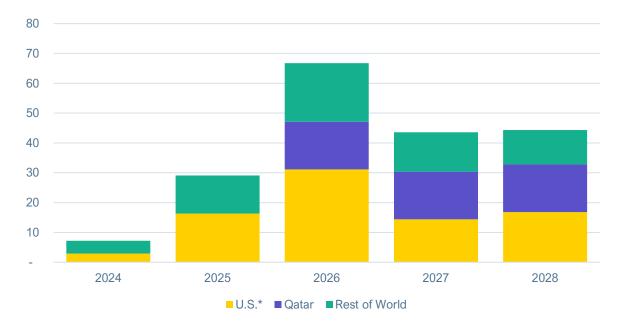


Figure 4: Growth in Global LNG Production Capacity (Million Tons per Year)

Source: IEEFA estimates, based on data from the International Gas Union, the International Group of Liquefied Natural Gas Importers, Independent Commodity Intelligence Services, Kpler, Global Energy Monitor, company announcements and financial filings, and news reports.

The anticipated supply boom comes after years of unprecedented tumult in LNG markets. Global LNG prices weakened in 2018 and 2019 as the global market absorbed a large amount of new LNG supply. Then, in 2020, global LNG demand cratered as the COVID-19 pandemic knocked the wind out of the sails of the global economy. As demand fell, LNG prices declined to all-time lows. This contributed to a steep drop in investment in new liquefaction plants that slowed new starts of liquefaction plants for years. From 2021 through 2024, the global LNG industry added a scant 37 MTPA of new liquefaction capacity, less than a third of what it had added over the previous four years.



But starting in late 2021, LNG prices skyrocketed as Russia reduced gas flows to Europe in preparation for its invasion of Ukraine. Prices soared even higher after the sabotage of the Nord Stream pipeline. Prices stayed high through the end of 2024 and into early 2025, when Russia cut off gas shipments to Europe through Ukraine. The combination of strong European LNG demand growth and limited supply additions have kept LNG prices elevated above historic norms since the fall of 2021.

Sky-high natural gas prices, in turn, have led to declines in demand in key LNG markets. Thanks in part to renewable energy deployment and policies aimed at curbing gas consumption, Europe's overall gas demand declined by 20% between 2021 and 2024, and the continent saw year-over-year LNG imports fall by 20% in 2024.³⁶ Overall European demand has declined in every gas-consuming sector, including homes, commercial businesses, industry, and electricity generation.³⁷

High LNG prices have also limited LNG demand growth in Asia, where LNG is increasingly viewed as an expensive and unreliable fuel. Japan and South Korea, mainstays of global LNG demand, are looking to reduce imports of the fuel as these nations boost power output from nuclear, wind, and solar power. In Asia, years of high and volatile LNG prices, coupled with extensive delays for new LNG import and gas-to-power projects, have slowed structural demand growth.³⁸

The prospect of massive new supply projects coming online after years of restrained global demand growth threaten to leave global LNG markets oversupplied. Many gas market analysts believe that global gas markets are on the brink of a correction, as a tidal wave of new supply collides with years of weak demand growth:

- International Energy Agency, World Energy Outlook 2023. "Starting in 2025, an unprecedented surge in new LNG projects is set to tip the balance of markets ... Projects that have started construction or taken final investment decision are set to add 250 billion cubic metres per year of liquefaction capacity by 2030, equal to almost half of today's global LNG supply. Announced timelines suggest a particularly large increase between 2025 and 2027. More than half of the new projects are in the United States and Qatar ... The strong increase in LNG production capacity eases prices and gas supply concerns, but comes to market at a time when global gas demand growth has slowed considerably."³⁹
- International Energy Agency, World Energy Outlook 2024. "An increase of nearly 50% in global LNG export capacity is on the horizon, led by the United States and Qatar ... Around 270 billion cubic metres (bcm) of annualised new LNG capacity has been approved and, if delivered according to announced schedules, is set to enter into operation over the period to 2030, a huge addition to global supply ... [A]ny acceleration of global energy transitions ... or



³⁶ IEEFA. <u>European LNG Tracker</u>. Last updated February 2025.

³⁷ Bruegel. European Natural Gas Demand Tracker. Last updated March 10. 2025.

³⁸ IEEFA. <u>Global LNG Outlook 2024-2028</u>. April 25, 2024.

³⁹ International Energy Agency. <u>World Energy Outlook 2023</u>. October 2023.

a wild card for supply like a large new Russia-China gas supply deal \dots would exacerbate the LNG glut."⁴⁰

- Argus Media: LNG glut coming and may catch many by surprise: Orsted. There will be an oversupply of LNG on the global market in the coming years, which may contribute further to "the decade of turmoil", Danish utility Orsted senior vice-president Rune Sonne Bundgaard-Jorgensen told Argus ... "We are going to see an LNG glut which we all in this [conference] room see is coming but the rest of the world does not necessarily. That is going to catch a lot of people by surprise," he said, adding that "surprises are never good when it comes to energy."⁴¹
- CNBC: A 'tidal wave' of natural gas supply—the biggest yet—will reshape global markets, says RBC Capital. "A wave of new LNG supply—the biggest yet—is set to reshape the global market in the coming years, with broader implications than prior growth given increasing inter-linkages between regional gas markets following the Russia-Ukraine conflict," analysts from the investment bank wrote in a note. The supply injection is likely to thrust the market into an extended period of oversupply by the end of 2026, which will remain until 2030, with prices possibly moving below double-digits, analysts such as RBC's Anan Dhanani have projected." ⁴²
- CNBC: The global gas glut could reach multi-decade highs in the coming years, Morgan Stanley says. "More than 150 million tonnes per annum worth of LNG capacity is currently under construction, marking a "record wave of expansion," Morgan Stanley said in a recent note. For a market that currently stands at over 400 mtpa, this represents "significant supply growth ... We expect gas market oversupply to reach multi-decade highs over the coming years," Morgan Stanley's commodity strategists said.⁴³
- The Economic Times. LNG contract prices set to decline amid oversupply and overinvestment: S&P Global. "By 2030, the LNG supply will see an addition of almost 200 million metric tons from plants currently under construction, marking a growth of nearly 50%"... [T]his increase is comparable to previous over-investment cycles observed in 2005/06 and 2013/17... [T]he combination of an oversupplied market and the current overinvestment cycle is expected to keep prices for long-term LNG contracts under pressure.⁴⁴
- Oxford Institute for Energy Studies: A New Global Gas Order? (Part 1): The Outlook to 2030 after the Energy Crisis. "The level of demand in the OIES New Order scenario in 2030 is not enough to absorb rising LNG supply, leading to lower utilisation rates at export plants."⁴⁵
- Oxford Institute for Energy Studies: What next for US LNG Exports? "[W]e have, for a long time now, been projecting a glut of LNG in the late 2020s. This is consistent with our



⁴⁰ International Energy Agency. <u>World Energy Outlook 2024</u>. October 2024.

⁴¹ Argus Media. LNG glut coming and may catch many by surprise: Orsted. September 25, 2024.

⁴² CNBC. A 'tidal wave' of natural gas supply — the biggest yet — will reshape global markets, says RBC Capital. October 23, 2024.

⁴³ CNBC. The global gas glut could reach multi-decade highs in the coming years, Morgan Stanley says. April 2, 2024.

⁴⁴ ETEnergyWorld. LNG contract prices set to decline amid oversupply and overinvestment: S&P Global. April 29, 2024.

⁴⁵ Oxford Institute for Energy Studies. A New Global Gas Order? (Part 1): The Outlook to 2030 after the Energy Crisis. July 2023.

view that LNG demand is likely to peak around 2030 or shortly thereafter, so all the capacity being built or expected to be built may be underutilised in the 2030s."46

Energy Intelligence, Our Take: Prepare for an LNG Glut: [W]e believe looming oversupply in the second half of the decade throws up challenges for suppliers ... While the picture is complicated by several factors, including the US pause on approvals for new export projects, we see a new wave of supply pushing Northeast Asian spot LNG prices down to \$7 per million Btu in 2026, less than half last year's average.⁴⁷

Widespread predictions for an extended period of global LNG oversupply could spell financial trouble for major gas exporters and traders, who face the unwelcome prospect of falling prices and profits. If the glut grows severe enough, high-cost LNG plants may even be turned off. Potential investors expecting robust economic benefits from Mexican LNG export projects would be wise to temper their expectations, and consider the potential that the global LNG market could soon be supplying far more gas than global markets can bear.

In Pursuing LNG Export Infrastructure Build-Out, **Mexico Faces the Potential for Disruptions From** Forces Outside Mexico's Direct Control

The proposed Mexican LNG export infrastructure would utilize natural gas imported from the U.S. imports. This carries risks that must be weighed carefully.

Management of Impacts From Extreme Weather or Urgent Conditions by Other Jurisdictions

Many countries are at risk of extreme weather incidents that can disrupt industrial activities. When an extreme weather event or health-related crisis occurs, government authorities often must manage risks and set priorities for operations of businesses deemed to provide essential services. These actions can disrupt the production or transport of raw materials or products, affecting other countries if they rely on those services.

The so-called "Texas freeze" of February 2021 provides a telling example. The Texas governor called for natural gas producers "not to export product out of state" in the wake of power outages and other conditions caused by Winter Storm Uri in February 2021, which he had declared a state



⁴⁶ Oxford Institute for Energy Studies. <u>What next for US LNG Exports?</u> January 2024.

⁴⁷ Energy Intelligence. Our Take: Prepare for an LNG Glut. February 20, 2024.

disaster.⁴⁸ Nowhere in the governor's statement was the issue of exports to Mexico mentioned.⁴⁹ The Texas Railroad Commission, the state's oil and gas regulator, notified export terminals of the governor's directive, stating, "Operators should take notice that under this mandate, all 'sourced natural gas' be made available for sale to local power generation opportunities before leaving the state of Texas, effective through February 21, 2021."⁵⁰

The move generated some controversy. One of the Texas agency commissioners opined that the directive was "unenforceable" given that it was a matter of international commerce.⁵¹ Mexico's economy minister reportedly contacted the U.S. government's representative in Mexico to seek assurances of natural gas supplies for the country during the extreme cold snap.⁵² Later that year, a University of Texas Energy Center report assessed a sample of five interstate pipelines transporting gas from Texas to Mexico during the month of the storm. The center found the lowest level of shipping occurred on Feb. 16, 2021, at a level 40% below the pre-storm export level on Feb. 1 of that year.⁵³

Disruptions Initiated by Other Jurisdictions for Regulatory, Political or Market Manipulation Reasons

As noted above, the U.S. DOE must approve exports of gas that are later re-exported to other countries.⁵⁴ The department may deny a natural gas export application if it finds the project "will not be consistent with the public interest."⁵⁵

In approvals over the past several years, U.S. DOE has relied on three studies to consider the cumulative domestic economic impacts of exporting LNG: the 2014 EIA LNG Export Study,⁵⁶ Oxford Economics and Rice University Baker Institute's Center for Energy Studies 2015 LNG Export Study,⁵⁷ and the NERA Economic Consulting's 2018 LNG Export Study.⁵⁸

Exports (Prepared for the U.S. DOE Office of Fossil Energy and Carbon Management). June 7, 2018.



⁴⁸ Office of the Texas Governor. <u>Governor Abbott gives update on state response to severe winter weather, power outages</u>. 2021. Also see: Office of the Texas Governor. <u>Governor Abbott Issues Disaster Declaration in Response to Severe Winter Weather in Texas</u>. February 12, 2021. The incident led the Center on Global Energy Policy at Columbia (CGEP) to identify Mexico's heavy reliance on U.S. gas as an energy security issue. See: CGEP. <u>Lucrative Reward or Mounting Risk? Mexico's growing reliance on US</u>

<u>Gas</u>. October 2023., p. 9.

⁴⁹ Office of the Texas Governor. <u>Governor Abbott Gives Update On State Response To Severe Winter Weather, Power Outages</u>. February 17, 2021

⁵⁰ Texas Railroad Commission. <u>Notice to operators regarding Governor Greg Abbott's mandate</u>. February 18, 2021.

⁵¹ Pipeline & Gas Journal. <u>Texas mandate to bar natural gas exports likely unenforceable</u>. February 18, 2021.

⁵² Hart Energy. <u>Texas Governor bans natgas exports amid freeze; oil producers still shut</u>. February 18, 2021.

⁵³ University of Texas at Austin Energy Institute. <u>The Timeline and Events of the February 2021 Texas Electric Grid Blackouts</u>. July 2021, pp. 54-55. Also see: <u>Center on Global Energy Policy at Columbia (2023)</u>, p. 9.

⁵⁴ The U.S. DOE Undersecretary for Science delegated the authority to regulate the imports and exports of natural gas under the Natural Gas Act, § 3 to the Assistant Secretary for FECM in <u>Redelegation Order No. S4–DEL–FE1–2023</u>, issued April 10, 2023.
⁵⁵ Office of the Law Revision Council. <u>15 USC § 717b(a)</u>. Accessed March 11, 2025.

⁵⁶ EIA. Effect of Increased Levels of Liquefied Natural Gas Exports on U.S. Energy Markets. October 29,

 ⁵⁷ Oxford Economics Center for Energy Studies. <u>The Macroeconomic Impact of Increasing U.S. LNG Exports</u>. October 2015.
 ⁵⁸ NERA Economic Consulting. Macroeconomic Outcomes of Market Determined Levels of U.S. LNG

IEEFA has raised concerns that these studies were outdated because they failed to recognize recent developments on U.S. and global supply and demand trends.⁵⁹ Real-world data, analyzed by IEEFA, had indicated that U.S. exports of natural gas were fueling high domestic gas prices.⁶⁰ Others raised concerns as well. The U.S. DOE imposed a pause on approvals for new LNG export projects and conducted an analysis of economic and environmental issues related to such approvals. The agency released a revised draft analysis in December 2024 on the impacts of LNG,⁶¹ and established a 60-day public comment period.⁶² The comment period was extended to 90 days, ending March 20, 2025.⁶³ The draft analysis, issued under the Biden administration, is designed to be an agency policy document rather than a regulation. The current administration lifted the pause on LNG export project approvals and has begun issuing approvals for new LNG facilities before completing a revised policy.⁶⁴

Future politics could change how the U.S. DOE exercises its discretion in assessing the impact of LNG export on the U.S. public interest. How that interest is defined is left to the agency's discretion, and the conditions affecting the public interest can change over time.

Finally, as noted above, gas prices are affected by the global market. International market manipulations and disruptions caused by global conflicts remain a risk for LNG development initiatives.

Tariffs and retaliatory tariffs, although garnering extensive media attention today, have long been a factor in international relations and can have significant economic impacts. As an example, the United States imposed tariffs on steel and aluminum imports from major trading partners in 2018, as well as a separate set of tariffs on various imports from China. Six of the trading partners—including Mexico and China—responded by imposing retaliatory tariffs on several U.S. exports to their own countries, including agricultural products. The U.S. Department of Agriculture produced a 2022 report on the effects of the retaliatory tariffs on farmers. It estimated that from mid-2018 through the end of 2019, the U.S. agricultural sector experienced export losses of more than \$27 billion.⁶⁵ U.S. exports of soybeans, wheat and corn to China plummeted by more than 60%, and U.S. pork exports to Mexico dropped by 13% in volume and 20% in value.⁶⁶

In addition to tariffs, a surcharge can be applied to an export as a form of economic sanction or trade management. The premier of Ontario briefly imposed a surcharge on electricity exported from the

⁶⁵ U.S. Department of Agriculture. <u>The economic impacts of retaliatory tariffs on U.S. agriculture</u>. January 2022, p. 16.
⁶⁶ <u>Ibid.</u>, pp. 2 and 7.



⁵⁹ See: IEEFA. Comments of the Institute for Energy Economics and Financial Analysis to the DOE Office of Fossil Energy and Carbon Management regarding the application to expand export and re-export operations by Mexico Pacific Ltd., LLC, Docket No. 22-167-LNG. March 29, 2023.

⁶⁰ IEEFA. <u>Booming U.S. natural gas exports fuel high prices</u>. November 4, 2021.

⁶¹ U.S. DOE. <u>Energy, Economic, and Environmental Assessment of U.S. LNG Exports</u>. December 2024. Also see: U.S. DOE. <u>U.S.</u> <u>Department of Energy completes LNG study update, announces 60-day comment period</u>. December 17, 2024.

⁶² U.S. DOE. Notice of availability of the 2024 LNG Export Study and request for comments. December 20, 2024.

⁶³ U.S. DOE. <u>2024 LNG Export Study: Energy, Economic, and Environmental Assessment of U.S. LNG Exports</u>. Accessed March 10, 2025.

⁶⁴ See: U.S. DOE. <u>U.S. Department of Energy reverses Biden LNG pause, restores Trump Energy Dominance Agenda</u>. January 21, 2025.

province to Michigan, Minnesota and New York in the United States in retaliation for the U.S. plan to impose tariffs on Canada.⁶⁷

In evaluating the potential profitability of LNG export facilities, investors and policymakers should consider the risk that project expenses and earnings could be affected by tariffs or surcharges not only on LNG imports but also on construction and maintenance equipment and materials imported or made from imported materials.

The risks must be evaluated at both ends—the point at which the gas crosses the U.S.-Mexico border as an import to Mexico, and the point at which the liquified gas enters the country of the ultimate customer, as a re-export from Mexico.

Conclusion

The rapid buildout of North America's LNG export industry has come at a cost: Natural gas consumers in much of the continent face higher and more volatile energy prices because of the LNG boom.

Meanwhile, communities surrounding these massive facilities must contend with the environmental and social consequences of living next to polluting, disruptive industrial facilities. And the world faces the growing impacts of a highly polluting fuel source responsible for substantial leaks of methane,⁶⁸ a potent climate-warming gas.

The U.S. LNG industry has targeted Mexico's Pacific coast for new export plants, since it offers a shorter and less expensive route for U.S. gas to reach Asian markets. But Mexican policymakers would be well-advised to take a skeptical view of the expansion of the country's LNG export industry. Facilitating the expansion of North American gas exports could cause significant disruptions in Mexican energy markets, including higher and more volatile prices for both natural gas and electricity. In addition, Mexican LNG facilities are at elevated risk of market manipulation, trade disruptions, and even extreme weather events that can limit the facilities' access to gas. New Mexican LNG plants also could open at a time when global LNG markets are saturated and oversupplied, leading to the possibility of low prices, impaired profits, and reduced utilization that undermines perceived economic benefits of these projects.

 ⁶⁷ The New York Times. <u>Trump pulls back plan to double Canadian metal tariffs after Ontario relents</u>. March 11, 2025. Also see: Hart Energy. <u>Ontario imposes 25% surcharge on electricity exports to U.S.</u> March 10, 2025.
 ⁶⁸ ING. <u>Why closer attention is now being paid to LNG emissions</u>. July 18, 2024.

About IEEFA

The Institute for Energy Economics and Financial Analysis (IEEFA) examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable and profitable energy economy. <u>www.ieefa.org</u>

About the Authors

Clark Williams-Derry

Clark Williams-Derry is an IEEFA energy finance analyst. He has served as director of energy finance and research director for the Sightline Institute, a multi-issue sustainability think-tank based in Seattle for 18 years, where his research focused on U.S. and global energy markets. He was also a senior analyst for Environmental Working Group.

Suzanne Mattei

Suzanne Mattei, an attorney (Yale Law School) and consultant with Lookout Hill Public Policy Associates, has over 30 years' experience in environmental policy. As Regional Director for the NYS Department of Environmental Conservation for four years, she led permitting and enforcement in New York City. Her widely cited recent report on a proposed fracked gas pipeline in New York found flaws in proponents' arguments. As NYC Executive for the Sierra Club, her research exposed federal mismanagement of the 9/11 response; her testimony to Congress helped lead to passage of the James Zadroga Act, providing healthcare to Ground Zero workers.

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