Industrial Energy Consumers of America (IECA)
The Voice of the Industrial Energy Consumers

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November 22, 2021

The Honorable Jennifer Granholm
Secretary
U.S. Department of Energy
Room 7A-257, Forrestal Building
1000 Independence Avenue, SW
Washington, DC 20585

Re: "Consumer Safety Valve" to Protect Against Excessive LNG Exports, DOE Approved LNG Exports to Non-Free Trade Agreement (NFTA) Countries Equal to 70 Percent of the Net U.S. Supply and is Not in the Public Interest

Dear Secretary Granholm:

On behalf of the member companies of the Industrial Energy Consumers of America (IECA), of which 100 percent are from the manufacturing sector, we urge you to establish and implement a "Consumer Safety Valve" to assure sufficient supply to meet domestic needs before any exports go to NFTA countries, thereby protecting U.S. national security interests and domestic natural gas and electricity consumers from high prices, inflation, disruptions to the supply chain, and manufacturing job losses now and in the future. This is especially important as the U.S. embarks on a massive infrastructure buildout. The U.S. Department of Energy (DOE) has both the authority and responsibility under the Natural Gas Act (NGA) to do so.

The public interest, both as to domestic prices and national security, is protected only when domestic production and pipeline capacity is robust enough to meet domestic demand: **exports must be limited to surplus supply of natural gas.**

It is in the public interest to act quickly. Winter natural gas prices are projected to rise to $6.50 to $7.00/MMBtu, which is three times higher than 2020 prices. Electricity prices rose 5.2 percent in August from a year earlier, which is the largest gain since 2014,

according to the U.S. Department of Labor.[1] The U.S. Energy Information Administration (EIA) states that LNG exports continued to grow in 2021, with an average monthly increase of 42 percent as compared to the previous year (see Figure 1).[2]

We also urge you to place a hold on all existing, pending, and prefiling permits and approvals on LNG export facilities in the lower 48 states to NFTA countries and to conduct a review of whether these facilities are in the public interest under the NGA. We believe that they are not. The DOE has approved excessive volumes of LNG exports to NFTA countries of 58.2 Bcf/d through 2050, a volume equal to 70 percent of the U.S. 2020 net supply of natural gas.[3] The studies used by the DOE to justify the volumes utilized third-party proprietary economic models that are unlawful under the Data Quality Act.

Exporting 70 percent of our natural gas to NFTA countries is in *their* public interest, and not in *our* public interest under the NGA. NFTA countries often discriminate against U.S. manufactured products. Nonetheless, from February 2016 to August 2021, 70 percent of all U.S. LNG shipments were to NFTA countries. We support fair trade via free trade agreements (FTAs), but we also need to ensure that the principal of parity is in place.

We ask a fundamental question, under the NGA, is it in the public interest to increase natural gas production, pipeline, and storage capacity by 70 percent to accommodate the approved DOE NFTA export demand? Is increased production and thousands of miles of new pipelines necessary to accommodate a 70 percent export increase in the public interest?

LNG exports to NFTA country China are surging and they are the third largest buyer of U.S. LNG.[4] China subsidizes energy and other costs for their manufacturers, making it extremely difficult for U.S. manufacturers to compete. These actions are premeditated and centrally planned by their government, yet we are supplying them with America's natural gas to keep their factories running. If not for China's subsidization of their manufacturing sector, there would be more manufacturing investments and jobs in the U.S.

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[1] "Soaring Energy Prices Raise Concerns About U.S. Inflation, Economy," Wall Street Journal, October 11, 2021, https://www.wsj.com/articles/soaring-energy-prices-raise-concerns-about-u-s-inflation-economy-11633870800

[2] U.S. liquefied natural gas exports grew to record highs in the first half of 2021, U.S. Energy Information Administration (EIA), https://www.eia.gov/todayinenergy/detail.php?id=48876&src=email

[3] U.S. Energy Information Administration, in 2020, 83 Bcf/d is available for U.S. consumers and LNG exports. Gas not available for consumers and LNG exports includes natural gas classified as lease and plant fuel, pipeline and distribution and net exports by pipeline to FTA Mexico and Canada.

[4] LNG Monthly published October 2021, U.S. Department of Energy, https://www.energy.gov/sites/default/files/2021-10/LNG%20Monthly%20August%202021.pdf

In August 2021, according to the U.S. Energy Information Administration (EIA), U.S. LNG exports to China topped 51 billion cubic feet (Bcf), more than three times as much as the year before. This accounted for 17 percent of total U.S. exports. Unfortunately, this is just the tip of the iceberg. New long-term contracts have been announced. On November 3, 2020, China's Sinopec, a state-owned-enterprise (SOE), and Venture Global LNG reached an agreement for a 20-year contract worth $30 billion.[5] The contract will double China's imports of U.S. LNG.[6] Separately, Unipec, a subsidiary of Sinopec will buy 3.5 million tons from Calcasieu Pass LNG, also owned by Venture Global LNG. In October 2020, Cheniere Energy Inc. announced a new 13-year deal to supply LNG to the Chinese company ENN Natural Gas, a natural gas distribution company.[7]

And then there is the issue of who is profiting from LNG exports at the expense of higher natural gas and electricity costs to domestic consumers. The EIA and Bloomberg Finance LP reports that cargos in East Asia rose for the ninth week in a row to a weekly average of $34.05/MMBtu, the highest weekly average on record since January 2020. Europe's weekly average price was $29.60/MMBtu. The November 2021 NYMEX contract expired on October 26, 2021, at $6.20/MMBtu, up $1.03/MMBtu from the previous Wednesday.[8]

LNG export profit margins are significant. According to a recent report, "assuming a shipping cost of $120,000 per day and a liquefaction tolling fee of $2.80/MMBtu, a cargo of American LNG arriving in Asia this December will netback approximately $21.64/MMBtu if sold on the spot market. For a standard vessel carrying 165,000 cubic meters of LNG that equates to roughly $81 million in profit."[9]

We are not against profits, but because U.S. consumers are captive and do not have an alternative to natural gas, we pay more for natural gas and electricity, while LNG exporters make outsized profits. This is not a win-win scenario or in the public interest under the NGA. On October 14, 2021, S&P Global Platts Analytics stated that unless

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[5] "Natural gas powerhouse Venture Global signs largest-ever supply deal by an American company," CNBC, November 4, 2021, https://www.cnbc.com/2021/11/04/natural-gas-powerhouse-venture-global-signs-largest-ever-supply-deal-by-an-american-company.html

[6] "Sinopec signs China's largest long-term LNG contract with U.S. firm," Reuters, November 4, 2021 https://www.reuters.com/business/energy/sinopec-signs-20-yr-lng-contract-with-us-venture-global-lng-2021-11-04/

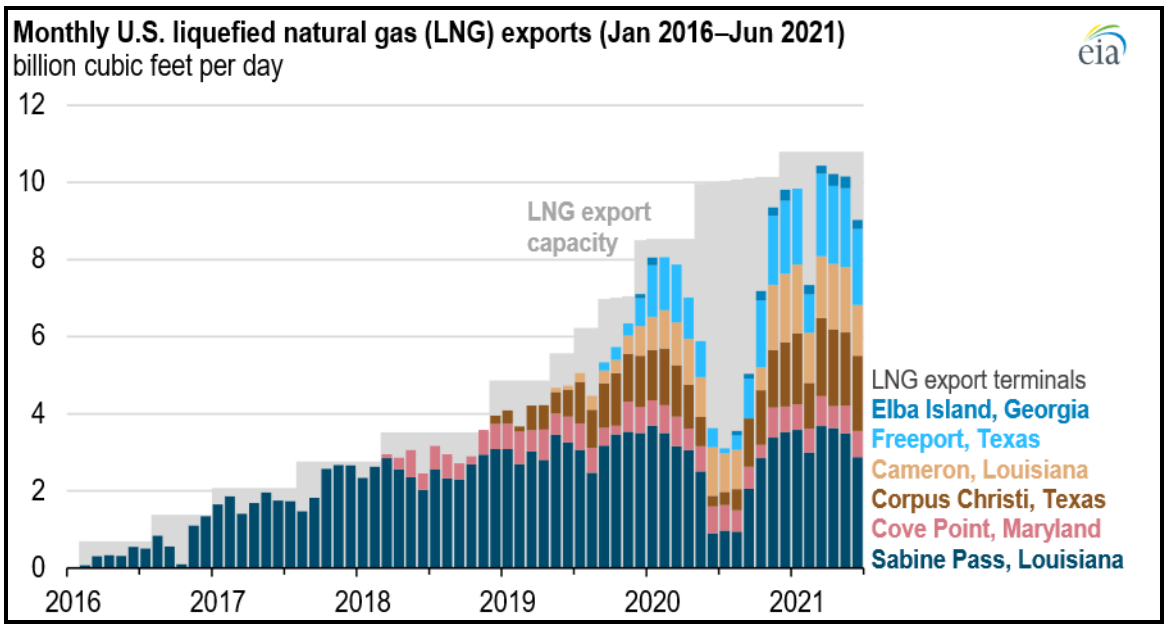
[7] "Cheniere and ENN Sign Long-Term LNG Sale and Purchase Agreement," October 11, 2021, https://lngir.cheniere.com/news-events/press-releases/detail/231/cheniere-and-enn-sign-long-term-lng-sale-and-purchase

[8] Natural Gas Weekly Update, U.S. Energy Information Administration (EIA), October 27, 2021, https://www.eia.gov/naturalgas/weekly/?src=email

[9] America's LNG growing pains, Energy Flux, https://www.energyflux.news/p/americas-lng-growing-pains

production increases, “you are talking about $12.00/MMBtu, $14.00/MMBtu gas to incentivize either curtailing LNG exports or curtailing exports to Mexico."[10]

FIGURE 1



The DOE’s U.S. LNG ***export driven*** policy has never denied an application, despite objections from IECA in those proceeding.[11] We are now at a critical point and the DOE needs to act now to address the impact of prior decisions. With excessive exports, domestic security of supply and resulting prices can become more severe with time. This approach was adopted by Australia, and they are feeling the pain due to this imbalanced approach which favors exports and drives-up Australian domestic natural gas prices. Australian consumers pay the Asia LNG net-back price, which means that they pay the same high price as LNG consumers in Asia, despite being a country with significant natural gas resources.

In past years, a consumer safety valve was not needed, but significant changes to the levels of exports, investments in drilling, challenges to building new pipelines, and current and proposed federal and state regulations, have made it more difficult to build pipelines.

[10] Henry Hub could reach $12-$14 this winter as capital discipline limits supply growth: Platts Analytics, https://www.spglobal.com/platts/en/market-insights/latest-news/natural-gas/101421-henry-hub-could-reach-12-14-this-winter-as-capital-discipline-limits-supply-growth-platts-analytics

[11] IECA filed comments in opposition on 22 motions to intervene, three DOE LNG studies, and the approval extension to 2050, https://www.ieca-us.com/natural-gas/

WHY A CONSUMER SAFETY VALVE IS NEEDED

The DOE's LNG export-driven policy has resulted in excessive LNG export approvals that permanently change the U.S. natural gas, electricity, NGLs, and pipeline market's reliability for the worse.

Prior to excessive LNG exports, U.S. supply and demand determined reliability and prices. All sellers and buyers competed on a level playing field. With excessive LNG exports, unless production can always increase to meet the needs of additional LNG export volumes and provide a surplus of supply for the domestic market, availability and prices will be dictated by demand from foreign countries. Likewise, unless there is always excess natural gas pipeline capacity, after accounting for increased LNG export demand, U.S. consumers will not have the capacity they need.

U.S. natural gas production is not increasing to meet accelerating LNG export demand to maintain a surplus for the domestic market.

Gross U.S. dry natural gas production increased from 74.6 Bcf/d in 2015 to 91.7 Bcf/d in 2020, a 17.1 Bcf/d increase.[12] But, net availability of natural gas to U.S. consumers only increased from 70.8 Bcf/d to 76.5 Bcf/d, or 5.7 Bcf/d after deducting LNG exports, lease and plant fuel, pipeline and distribution use, and net pipeline exports to Canada and Mexico, for both years. Domestic consumption increased from 68.5 Bcf/d to 75.8 Bcf/d, or 7.3 Bcf/d, a 10.6 percent increase. Increased LNG and pipeline exports to Mexico are decreasing net natural gas availability to U.S. consumers.

LNG exports increased from zero in 2015 to 6.4 Bcf/d in 2020 and are now operating at 11.1 Bcf/d, which consumes 14.5 percent of the 2020 net supply.

It will only get worse from here. There is another 8.4 Bcf/d of LNG export capacity that is approved and under construction. Another 23.9 Bcf/d is approved and not under construction, totaling 43.4 Bcf/d and others are still in prefiling.

U.S. consumers do not have an alternative. We are captive consumers.

When it comes to purchasing off the shelf consumer goods and services, U.S. consumers have alternatives, but not when it comes to natural gas. This is especially an important issue for the manufacturing sector. EIA studies have shown that equipment which is using natural gas, cannot be switched to electricity.[13] Plus, nearly half of all U.S.

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[12] "Natural Gas Consumption by End Use," U.S. Energy Information Administration (EIA), https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm

[13] Source: 2018 Manufacturing Energy Consumption Survey, U.S. Energy Information Administration (EIA), pages 14-15
https://www.eia.gov/consumption/manufacturing/pdf/MECS%202018%20Results%20Flipbook.pdf

households heat primarily with natural gas. The EIA states that they expect households that use natural gas as their primary space heating fuel will spend $746 this winter, a 30 percent increase from what they spent last winter. A combination of flat U.S. natural gas production and record-high levels of LNG exports have resulted in below-average storage levels and upward pressure on prices.[14]

The global LNG market is not a free-market. U.S. consumers cannot compete with foreign government-controlled entities who can pay any price for LNG, no matter how high. We cannot.

U.S. consumers cannot compete on prices with foreign government-controlled entities who purchase LNG. Foreign government SOEs and their regulated utilities can pay any price, no matter how high to keep the lights on in their countries. They can and will buy-away U.S. natural gas that we need to operate our manufacturing facilities. They have automatic cost pass-through and several governments set their domestic prices for natural gas and electricity below costs. Because of these advantages, they have unfair market power over domestic consumers. For U.S. homeowners, this means higher costs for heating and electricity. For the manufacturing sector, the consequences are much greater.

Increased natural gas prices have significant inflationary impacts on the economy.

The price of natural gas also impacts the cost of electricity and natural gas feedstocks, which are used to produce chemicals and plastics. Natural gas power generation sets the marginal cost of power which means that when natural gas prices rise, so does the price of electricity. For example, in the report PJM Real-Time Energy Market in 2020, natural gas generation was 72.3 percent of marginal resources.[15] PJM is the largest electricity wholesale market. The implications are significant nationwide.

Increasing natural gas prices negatively impact the U.S. economy. For example, natural gas prices directly impact the price of natural gas liquids (NGLs) that are used as a feedstock, not a fuel. The price of natural gas directly correlates to the price of NGLs. As prices for natural gas go up, so does NGLs, which increases the raw material costs of chemicals and plastics, which are used across the economy, causing inflation. Natural gas is used to produce nitrogen fertilizer. In this case, it is the farmers and food production that are impacted. Steel, aluminum, and cement are all large consumers of energy, and this directly impacts the construction and auto industries. There are many more examples of the negative impacts of higher natural gas prices on the manufacturing sector.

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[14] EIA Winter Fuels Outlook https://www.eia.gov/outlooks/steo/special/winter/2021_Winter_Fuels.pdf
[15] State of the Market Report for PJM, http://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2020/2020-som-pjm-vol2.pdf

In July 2020, the DOE extended all LNG export approvals for 30 years to 2050, which shifts all market and price risk to U.S. consumers and away from LNG exporters.

No one can forecast energy supply and demand for a 30-year period. The DOE's actions to extend LNG export terminal approvals to 30 years, shifts all of the risks of supply and prices on domestic consumers and **reduces risks to LNG exporters** and countries that would receive the LNG. The DOE policy gives LNG exporters and foreign countries guarantees of access to our market, without guarantees of a reliable supply for domestic consumers. The DOE's actions allow exporters to do long-term planning to build more export terminals. The reverse is true for manufacturing companies who have growing reasons to question whether reliable supply and pipeline capacity will be available for new investment here.

There is no federal reliability oversight of the natural gas market and the pipeline capacity needed for delivery to consumers.

Unlike the electricity market where Congress granted the North American Electric Reliability Corporation (NERC) nationwide market reliability oversight, there is no such organization for natural gas. For electricity, nationwide reserve generation capacity is readily transparent to the market. For pipelines, no federal agency knows how much reserve pipeline capacity is available.

Because of the long lead times necessary to put a new pipeline into service, it is vital to know whether there is sufficient capacity to serve increasing domestic and export demands, especially at peak winter and summer demand. Since over 40 percent of U.S. power generation is natural gas-fired, both natural gas and electricity reliability are at stake.

The DOE LNG studies used to evaluate the public interest determination under the NGA, never considered availability of pipeline capacity.

The seriousness of the ongoing decline in available pipeline capacity cannot be over-stated. Pipeline capacity has not expanded at the same rate as LNG exports and the DOE approved export volumes. All three of the DOE LNG export studies used to justify increased LNG exports did not consider pipeline capacity. By itself, this is a reason to reevaluate the public interest determination of export volumes. The DOE approved NFTA exports equal to 58.2 Bcf/d without knowing what pipeline capacity is available, which jeopardizes domestic natural gas and electricity reliability.

We know that LNG exporters have locked-up firm pipeline capacity. This decreases pipeline capacity that is available to domestic consumers. Once locked up, domestic consumers do not have access to it. If a manufacturer wants to build a new facility, it

may not have sufficient pipeline capacity and the plans for construction will be terminated.

The problem is that new interstate pipelines are not getting built, they are getting cancelled. Potential new FERC regulatory changes to pipeline permitting and certain anti-fossil energy states and activists, could make it even harder and more time consuming to build or expand needed interstate pipelines and take-away pipeline capacity.

For example, the Marcellus and Utica are two significant sources of natural gas supply. S&P Global Platts reports that only 2.0 Bcf/d of spare pipeline capacity is available.

Other LNG export countries do not have a large manufacturing sector at risk. The U.S. does.

The two largest LNG exporting nations are Australia and Qatar, in that order. Neither have a large domestic market for natural gas. Neither have large manufacturing sectors. LNG exports puts the entire U.S. manufacturing sector, which contributes $2.2 trillion in GDP and 12.5 million high paying jobs, at risk. In 2020, Australia had 830,519 manufacturing jobs and Qatar had only 85,000.[16] An LNG export terminal employs only about 300 employees.[17]

The BP Statistical Review of World Energy report sums it up nicely. As a percent of global natural gas consumption, Australia is at 1.1 percent and Qatar is at 0.9 percent, while the U.S. is at 21.8 percent. Furthermore, the U.S. has only 6.6 percent of global natural gas reserves.[18]

U.S. consumers and the economy should be a priority for domestic natural gas resources over LNG exports and foreign countries who are buyers.

For years, the U.S. was dependent upon other nations for energy. Now that we have energy independence, we have handed it over to foreign nations to dictate our domestic natural gas reliability and prices. We are shipping away the U.S. manufacturing competitive advantage.

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[16] Australia, https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release#data-download), Qatar, https://assets.kpmg/content/dam/kpmg/qa/pdf/2021/04/tl-qatar-industrial-landscape-2.0-resilient-and-stronger-.pdf

[17] Value Added by Industry, U.S. Bureau of Economic Analysis (BEA), www.bea.gov; and Employment, Hours, and Earnings from the Current Employment Statistics survey, U.S. Bureau of Labor Statistics (BLS), www.bls.gov

[18] Statistical Review of World Energy, 2021, Page 38 https://www.bp.com/content/dam/bp/business-sites/en/global/corporate/pdfs/energy-economics/statistical-review/bp-stats-review-2021-full-report.pdf

Natural gas, electricity, and natural gas feedstock prices have significantly increased, driven by a year over year increase in LNG exports.

As stated above, natural gas production has not increased at the same rate as LNG exports and national inventory levels are below the five-year average. If there were no LNG exports, the U.S. would have sufficient supply and prices would not have been impacted. A safety valve would have prevented this from happening.

When LNG exports increase without a corresponding increase in production and pipeline capacity, domestic prices increase, and national security becomes at risk. Consumers cannot rely upon increasing domestic supply of natural gas and pipeline capacity. Therefore, it is prudent to reduce LNG exports to levels that assure a surplus supply to the benefit of the domestic market and the economy. We look forward to meeting with you to discuss the creation of a consumer safety valve.

Sincerely,

Paul N. Cicio

Paul N. Cicio

President and CEO

cc: Senate Committee on Energy and Natural Resources
House Committee on Energy and Commerce
Senate Committee on Finance
House Committee on Ways and Means
FERC Commissioners
The Honorable Katherine Tai, U.S. Trade Representative

The Industrial Energy Consumers of America is a nonpartisan association of leading manufacturing companies with $1.1 trillion in annual sales, over 4,200 facilities nationwide, and with more than 1.8 million employees. It is an organization created to promote the interests of manufacturing companies through advocacy and collaboration for which the availability, use and cost of energy, power or feedstock play a significant role in their ability to compete in domestic and world markets. IECA membership represents a diverse set of industries including: chemicals, plastics, steel, iron ore, aluminum, paper, food processing, fertilizer, insulation, glass, industrial gases, pharmaceutical, building products, automotive, independent oil refining, and cement.