

Dec. 6, 2023

The Honorable  
Jennifer Granholm  
Secretary of Energy  
U.S. Department of Energy  
1000 Independence Ave., S.W.  
Washington, D.C. 20585

**Re: DOE non-FTA Permits for west coast LNG Export Facilities**

Dear Secretary Granholm,

I am writing to you as President of the [Western States and Tribal Nations Natural Gas Initiative](#) (WSTN) in response to a [letter](#) dated Nov. 14, 2023, from Members of Congress urging you to update how the U.S. Department of Energy (DOE) determines whether new licenses for liquefied natural gas (LNG) exports to countries which do not have free trade agreements (non-FTA countries) with the U.S. are in the public interest.

WSTN is a bipartisan, trans-national initiative led by sovereign tribal nations, states and counties focused on creating rural economic development, advancing tribal self-determination and reducing global emissions through the export of clean natural gas from western North America to international markets. It began as a bipartisan effort under former Colorado Gov. John Hickenlooper and former Utah Gov. Gary Herbert, and is now an established 501(c)4 organized under a Memorandum of Understanding between sovereign tribal, state, and county governments including:

- The Ute Indian Tribe
- The State of Utah (Utah Governor's Office of Energy Development)
- The State of Wyoming (Wyoming Energy Authority)
- The State of Baja California, Mexico (Ministry of Tourism and Economic Development)
- The State of New Mexico (Energy, Minerals and Natural Resource Department)
- The Western Colorado counties of Garfield, Mesa, Moffat and Rio Blanco
- The Southern Ute Indian Tribe
- The Jicarilla Apache Tribe
- The Province of Alberta (Pending)

As you are aware, global demand for American LNG reached record levels and doubled over the past four years, in large part because of strong economic growth and fuel switching in Asian nations and then, the need to supply our European allies after Russia invaded Ukraine and cut off gas supplies to Europe. Natural gas from Rockies basins can play a key role in meeting those energy needs, providing reliable, cleaner baseload power to displace dirtier fuels and foster renewable energy deployment by balancing intermittency issues and supporting related supply chains.

WSTN's [Rockies-natural gas focused study](#) "*Life Cycle Assessment of Greenhouse Gas Emissions from Liquefied Natural Gas Exports from North America's West Coast for Coal-Displaced Electricity Generation in Asia*" (released in June 2021) finds that LNG exported from the North American West Coast to China, India, Japan, South Korea, and Taiwan would create net life cycle emissions reductions of between 42%-55% if used to replace coal-fired power generation. Crucially, the report accounts for the life cycle greenhouse gas emissions impact of Rockies-sourced gas by assessing every point of the entire LNG supply chain, starting with production at the well head and ending with the emissions from electricity transmission and distribution in those nations.

WSTN is in the process of updating this study, which has roots in a 2014 study by DOE's National Energy Technology Laboratories ([updated in 2019](#)) entitled [Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States](#). The original 2014 study was [entered into the record for 25 then-pending dockets regarding non-FTA authorizations](#) for LNG exports by the DOE Office of Fossil Energy and Carbon Management, to provide relevant data as to the greenhouse gas impact of those exports.

All of this data is just as relevant to the question of public interest now, and WSTN's current study provides strong support for exports as a global decarbonization tool. We expect that our expanded and updated study, now in the works, will do the same in supporting the fact that decarbonization is a global, not local, issue.

#### **PRICE AND DEMAND ANALYSIS**

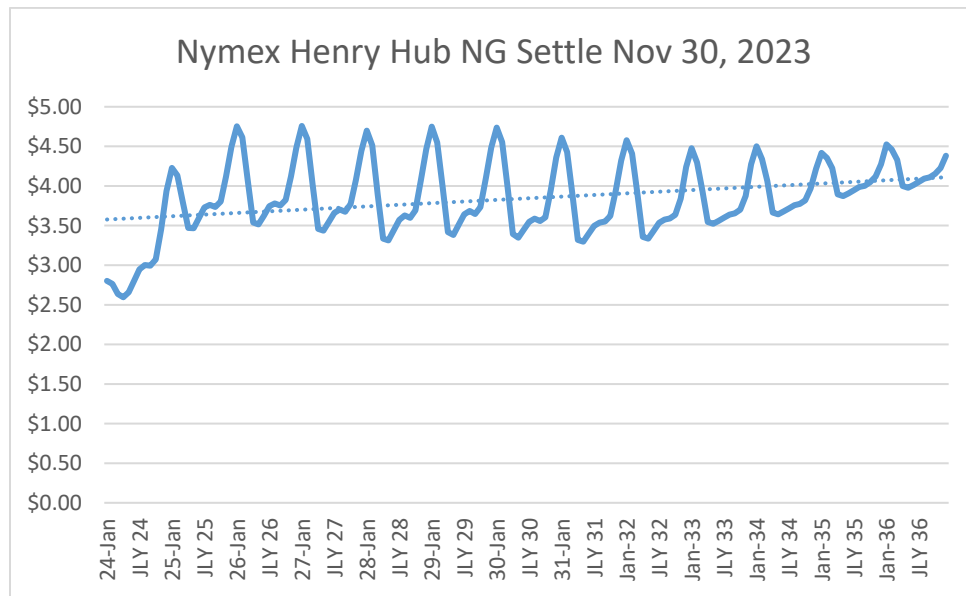
These export levels (currently about [12% of U.S. dry natural gas production](#) per the Energy Information Administration) are unseen before in American history. Yet the oft-voiced concern that exports would harm the domestic natural gas market and prices for American families and industries have yet to materialize. Indeed, the year-to-date average price at the Henry Hub, according to [Energy Information Administration \(EIA\) data](#), is \$2.53 per Million BTU (MMBTU), which demonstrates the rapid U.S.-led market response to the price surge caused by Russia's invasion of Ukraine, which led to an annual average price of \$4.58/MMBTU in 2022.

The EIA, in its May 2023 "[Issues in Focus: Effects of Liquefied Natural Gas Exports on the U.S. Natural Gas Market](#)" forecasts a 2050 average Henry Hub price of \$4.81/MMBTU in the highest-volume export case which assumes that U.S. LNG export volumes will more than quadruple to 48.2 billion cubic feet of exports day (Bcf/d) versus our current maximum export capacity of 11.2 Bcf/d, and that international prices remain elevated. This analysis is based on historical Henry Hub prices.

On an inflation-adjusted basis, this is actually lower than the current spot price, even with more than four times the export volume and the lure of higher international prices attracting gas away from the domestic market. That is equivalent to a Henry Hub price of \$2.49/MMBTU in today's dollars, whereas the Henry Hub spot price as of [Nov. 30 was \\$2.84](#). WSTN's calculation of this inflation-adjusted value uses the highest price, highest export volume case stated by the EIA and discounts the future value using St. Louis Federal Reserve Bank's [30-year breakeven inflation rate](#) of 2.47%.

The EIA's May 2023 analysis buttresses this argument as well, even when presenting a high export volume with a higher price and lower natural gas supply forecast of \$6.37/MMBTU in 2050. Using the same inflation discount formula, this represents a price of \$3.29/MMBTU in today's dollars – in line with the 10-year average historical Henry Hub price of \$3.37/MMBTU.

The same analysis holds true when using futures market settlement data from the [CME Group's NYMEX Henry Hub quotes through 2036](#), the furthest point for which quotes are available. Using the same inflation analysis method and smoothing via a trendline to account for seasonality, the July 2036 futures settlement price of \$4.38/MMBTU is equal to \$3.23/MMBTU in 2023 dollars. Once again, that forecast is in line with the 10-year average historical Henry Hub price of \$3.37/MMBTU. (For this, WSTN used the average of the St. Louis Fed's 10- and 20-year breakeven rates, which was 2.38% as of Nov. 2023)



Both analyses argue for the market responding to price signals with increased production and crucially, being able to do so because there are few burdensome restrictions on production or the supply chain.

Indeed, the market response was so strong to the increased European demand, along with the consistent Asian demand, that the 2023 YTD price is **35% lower** than the 2021 yearly average price of \$3.89/MMBTU.

Aside from market responsiveness, this underscores the resilience of our supply. Since the U.S. became the world's largest natural gas producer in 2012 because of the innovations brought by the shale gas revolution, The Potential Gas Committee estimates that there is as much as 40% more technically recoverable natural gas available as a result.

In short, existing pricing and supply data shows that the threat of higher domestic natural gas prices is neither realistic nor supported by evidence, barring any major policy changes which would artificially limit U.S. LNG suppliers' and natural gas producers' ability participate in free energy market trade.

### GEOPOLITICAL CONSIDERATIONS

This data snapshot demonstrates the robustness of America's energy supply and the responsiveness of its industry when called upon to meet market demand and to help supply America's allies with the energy security they need in a time of war and crisis. This is our tradition as a principled and practical nation; and

that tradition is predicated upon sensible and reasonable policies that promote American economic strength as a geopolitical equal to our military power.

The State Department in 2022 recognized the value of LNG as a “just right” Goldilocks tool of geopolitics and decarbonization – lying squarely between soft and hard power – in bilateral energy dialogues with [Japan](#) and the [United Kingdom](#), our most important partners in Asia and Europe.

Crucially, the State Department supported language in the [2023 Group of Seven Nations Communiqué](#) which defined LNG’s usage going forward to support future energy systems such as hydrogen and decarbonized ammonia. This recognized the tectonic shifts in the energy world caused by Russia’s use of natural gas denial as a weapon, and more importantly, recognized Japan’s visionary path to clean energy systems for Asia that will meet specific economic and environmental needs on a nation-by-nation basis. The [relevant portion](#) of the Communiqué reads in part:

*“In this context, we stress the important role that increased deliveries of LNG can play, and acknowledge that investment in the sector can be appropriate in response to the current crisis and to address potential gas market shortfalls provoked by the crisis ... publicly supported investment in the gas sector can be appropriate as a temporary response, subject to clearly defined national circumstances, if implemented in a manner consistent with our climate objectives without creating lock-in effects, for example by ensuring that projects are integrated into national strategies for the development of low-carbon and renewable hydrogen.”*

WSTN’s member states and sovereign tribal nations strongly advocated for this policy approach during the 2023 G7 process for three main reasons:

- 1) This policy position promotes a practical, realistic vision of future-proofing our existing natural gas infrastructure to become part of the hydrogen and decarbonized ammonia emerging energy markets. As free markets and governments demand lower-carbon and decarbonized energy options, natural gas produced in the Rockies – where there is a friendly arms race among the states to demonstrate who can produce the lowest methane intensity gas – is already a leader. This leadership supports WSTN’s vision of offering Asian nations lower-carbon electricity generation fuel options to lower their carbon footprint, and our closely entwined goals of rural economic development and tribal self-determination.
- 2) It is bipartisan in nature domestically, skillfully bridging the divide between ideology and the reality that we need fully functioning and robust energy systems now and into the future. Leveraging our existing strengths is the fastest path to success in lowering GHG emissions, as nearly two decades of success has shown us in the U.S. – where increased natural gas generation to replace higher-emitting systems has led to a [20% reduction in our hydrocarbon emissions](#) since 2007. This translates directly to our vision of exporting this success to Asia, where Japan is leading and helping finance the ambitious [Asia Zero Emission Community initiative](#) across the region to decarbonize in a manner tailored to local conditions and which respects that many nations do not share its level of wealth or development. The best of American diplomacy has historically incorporated this principle, and made its resources available to allied nations which share our ideals – and not unduly withheld them to force an ideological or locally inappropriate solution. As sovereign tribal nations and states, it is crucial for us that we respect sovereignty and the rights that come with it when engaging in bilateral or multilateral actions. It is wholly inappropriate for

one side to dictate to those with less power in cordial diplomatic relations which directly impact the economy with as much force as energy does.

- 3) It supports more opportunities to deliver U.S. LNG to Asia and to diversify our domestic supply, by creating greater market access for Rockies gas – which is often constrained. While the Ukraine conflict has diverted many cargoes to Europe, Asia remains the fastest-growing LNG market, with forecasts that it will command 80% of demand through 2040. It is either the U.S. and allies such as Australia and Qatar which will meet this demand, or Russia. This case was made at our April 2023 forum in Washington by the Honorable Hirai Hirohide, Vice Minister of Japan’s Ministry of Economy, Trade and Industry, who described the “‘inconvenient truth’ that if the U.S. does not meet the demand for natural gas, especially in Asia, Russia will be ‘pleased’ to step in to supply the fuel,” as [Politico](#) quoted him.

### **GLOBAL COMPETITIVENESS AND TRADE CONSIDERATIONS**

Besides the aforementioned need to replace Russian natural gas with U.S. and allied supplies, the Panama Canal is increasingly becoming a challenging political and operational risk for Asian nations which depend on U.S. gas for supply. Without an option for West Coast exports, this is a) competitive risk for existing LNG exports from U.S. suppliers and b) a physical barrier to trade and c) a threat to LNG’s demonstrated ability to materially lower the U.S. trade deficit.

In conversations with our partners and allies in Asia, the current drought conditions in the Panama Canal that have reduced ship transits to 40-50% of capacity are top-of-mind for LNG customers, who depend on cargoes to supply energy for their economies. This has long been a worry about the Panama Canal, and it is now a daily reality. This is already triggering questions among Asian buyers about their choice of supplier.

It is a legitimate question to ask whether U.S. suppliers that must transit the Panama Canal would be more attractive than Australian or Qatari suppliers that do not have the same operational and political risk. The solution to this, to keep American suppliers on a level playing field, is to establish Pacific Coast export options. Unfortunately, these only exist or will exist in Canada or Mexico, as political objections have made Washington, Oregon and California off-limits, to the detriment of other U.S. states. WSTN is supportive of U.S. West Coast LNG export options in the first instance, as evidenced by its support the federally permitted Jordan Cove LNG project in Oregon, which was withdrawn when the state permits were not issued.

This is why WSTN is advocating strongly to establish new infrastructure links from the Rockies to future export opportunities in the United States, Mexico or Canada, and these same export locations can serve future decarbonized ammonia or hydrogen markets, if built with the future end in mind.

From a broader American macroeconomic perspective, LNG exports make good sense because they are increasingly helping lower our trade deficit. At the peak of our 2022 deficit in August of that year, [LNG exports lowered the trade deficit](#) by 7.5% by contributing \$72.5 billion in export value. This is a contribution that has emerged as rapidly as the U.S. LNG industry has grown to provide a fifth of the world’s supply, and it is a durable option for the upcoming decades as we decarbonize and move to hydrogen and decarbonized ammonia.



As the world's largest LNG exporter, the U.S. is now bolstering energy security for its allies in Europe and Asia, especially those who are dependent on LNG imports such as Japan, South Korea and Taiwan. In addition to supporting existing allies, these products can also help to forge new partnerships including rapidly growing countries in Asia that would counter growing Chinese and Russian influence. It is incumbent upon the U.S. to enable non-FTA authorizations that empower us to do so, including to support future North America LNG export outlets that can reach the Pacific such as Energía Costa Azul LNG and Vista Pacifico LNG, Saguaro Energía, LNG Canada and Woodfibre LNG can position the U.S. as the major supplier of energy to Asia, which will yield enormous economic, domestic and geopolitical benefits.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Browning".

Andrew Browning  
President, Western States and Tribal Nations Natural Gas Initiative

Cc: Brad Crabtree, Assistant Secretary, Office of Fossil Energy and Carbon Management, U.S. Department of Energy  
Bryan Newland, Assistant Secretary, Indian Affairs, U.S. Department of Interior