

Comments of LNG Allies to the Department of Energy

Proposed LNG Export Authorization Extension Through 2050

March 12, 2020

Background

On February 11, 2020, the Office of Fossil Energy (FE) of the Department of Energy (DOE) gave notice of a proposed policy statement to extend the standard 20-year term for authorizations to export natural gas from the lower-48 states—including domestically produced liquefied natural gas (LNG)—to countries with which the United States does not have a free trade agreement (FTA) requiring national treatment for trade in natural gas and with which trade is not prohibited by U.S. law or policy (non-FTA countries).

Under the proposal: (1) existing non-FTA authorization holders could apply to extend their export term through December 31, 2050, on a voluntary opt-in basis; (2) existing applicants could amend their pending non-FTA application to request an export term through December 31, 2050, on a voluntary opt-in basis; and (3) DOE would issue all future non-FTA export authorizations with a standard export term lasting through December 31, 2050, unless a shorter term is requested by the applicant.

Statement of Interest

LNG Allies, The U.S. LNG Association, is the only independent nonprofit organization focused solely on advancing the interests of the U.S. LNG industry. Our mission is to help bring the climate, environmental, economic, and geostrategic benefits of U.S. LNG to the world. Our members include existing non-FTA authorization holders, existing non-FTA applicants, LNG firms that will seek non-FTA authorizations in the future, and others who are involved in supporting the U.S. LNG industry in various ways. ***Our members have a clear interest in the proposed policy statement and we unequivocally support DOE's proposal to extend non-FTA authorizations through December 31, 2050.***

Justification

In the *Federal Register* notice of February 11, 2020, DOE articulated several reasons why an extension through December 31, 2050, has merit. LNG Allies concurs and elaborates on DOE's justifications:

1. Climate Benefits. An extension of non-FTA authorizations through 2050 will help reduce greenhouse emissions by reducing the use of coal for electric power and industrial uses. DOE has documented this reality in the life cycle greenhouse gas studies that were conducted for the department by the National Environmental Technology Laboratory in 2014¹ and 2019². These findings have been confirmed by other, peer-reviewed LNG life-cycle analyses conducted by various academic research teams:

¹ Department of Energy, *Draft Addendum to Environmental Review Documents Concerning Exports of Natural Gas From the United States*, 79 FR 32258 (June 4, 2014).

² National Energy Technology Laboratory, *Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States: 2019 Update* (DOE/NETL 2019/2041) (Sept. 12, 2019)

- “When considering a 100-year [Global Warming Potential] (GWP) mean life cycle emissions from exported U.S. LNG are 13% lower than those from Russian natural gas exports, and result in about 45% fewer emissions than coal electricity generation. When considering a 20-year GWP, exported U.S. LNG would reduce emissions from electricity production via Russian gas by 27% and cut emissions from electricity production from coal by 32%.”³
- “Our results suggest that there is a net environmental benefit in terms of greenhouse gas emissions reduction when importing Canadian natural gas for electricity generation in the five countries considered, except for the case of Japan prior to the Fukushima nuclear disaster.”⁴
- On average, life cycle GHG emissions from [U.S.] LNG imported into India are ≈54% lower than those associated with Indian coal. However, the GHG intensity of the Indian coal-power sector may be reduced by [a further] 13% by retiring plants with the lowest efficiencies and replacing them with higher-efficiency supercritical plants. Improvement of the CCGT fleet efficiency from its current level (41%) to that of a new plant with an F-class turbine (50%) could [also] reduce life cycle GHG emissions for LNG-sourced power by [a further] 19%.⁵

2. Economic Benefits. An extension of non-FTA authorizations through 2050 is based on DOE’s 2018 Macroeconomic Study⁶ which found that that the United States will experience net economic benefits from the export of up to 52.8 billion cubic feet per day (bcf/d) of domestically produced LNG through the 30-year study period (i.e., from 2020 through 2050). Independent economic analyses provided to DOE by various non-FTA applicants found similar results. This is not surprising. It is clear that economic benefits for the United States will always increase with U.S. LNG exports since the U.S. natural gas industry is now and will remain demand- and not supply-limited. Since future domestic gas demand is not projected to grow significantly, it is clear that U.S. LNG exports are needed for the expansion of jobs and economic growth in the U.S. upstream and midstream gas sectors.

3. Market Competitiveness. As DOE has discussed, the LNG export terminals operating, under construction, or planned in the United States are designed for an operational life of 30 years or longer. Limiting U.S. projects to export authorizations of 20 years constrain the flexibility that U.S. companies can offer in contract negotiations and therefore could be a major disadvantage in an increasingly competitive and dynamic global LNG market with new projects planned in Qatar, Russia, Mozambique, and elsewhere in the coming years. LNG export facilities are capital intensive and require most U.S. project sponsors to raise financing of up to \$10 billion or more to construct their terminals, underwritten by long-term LNG offtake contracts. A longer export authorization term would allow U.S. companies to offer contract arrangements more attractive to potential customers and still be sufficient to satisfy debt

³ Abrahams, L. S.; Samaras; Griffin, M. W.; Matthews, S. H. *Life Cycle Greenhouse Gas Emissions From U.S. Liquefied Natural Gas Exports: Implications for End Uses*. Environ. Sci. Technol. 2015, 49, 3237-3245.

⁴ Kasumu, A.S.; Li, V.; Coleman, J.W.; Liendo, J.; Jordaan, S.M. *Country-Level Life Cycle Assessment of Greenhouse Gas Emissions from Liquefied Natural Gas Trade for Electricity Generation*. Environ. Sci. Technol. 2018, 52, 1735-1746.

⁵ Mallapragada, D. S.; Naik, I.; Ganesan, K.; Banerjee, R.; Laurenzi, I. J. *Life Cycle Greenhouse Gas Impacts of Coal and Imported Gas-Based Power Generation in the Indian Context*. Environ. Sci. Technol. 2019, 53, 539-549.

⁶ NERA Economic Consulting, *Macroeconomic Outcomes of Market Determined Levels of U.S. LNG Exports*, (2018).

repayment obligations. In this regard Canada has granted a 40-year LNG export license to the proposed Kitimat LNG export facility in British Columbia. (Kitimat will be a direct competitor to U.S. projects seeking to serve the Asian market.)

4. No Impact on U.S. Gas Consumers. Estimates of U.S. natural gas reserves by the Potential Gas Committee and others indicate that the United States has at least 100 years of technically recoverable resources at the current level of domestic consumption. Thanks to the huge U.S. resource base and improving technology, the U.S. Energy Information Agency (EIA) forecasts U.S. natural gas prices to remain low at increasing levels of production out to at least 2050 (it should be noted that every year in recent years EIA has revised downward its estimate of natural gas prices in the United States, despite increasing exports). Therefore, there should be no concerns that extending natural gas export authorizations to December 31, 2050 would have a negative impact on the availability or prices of U.S. natural gas in the domestic market.

The 2018 LNG Export Study commissioned by DOE demonstrates that the United States will experience net economic benefits from the export of domestically produced LNG through the 30-year study period (*i.e.*, from 2020 through 2050). In addition, that study concluded “there is greater gain in GDP as the LNG export volume increases” in scenarios with common assumptions. The multiple benefits to the United States and to our companies is an important argument demonstrating that it is in the public interest to extend the term permitted for U.S. natural gas exports and to allow the market to determine the level of those exports.

Conclusion

For the reasons set forth above, LNG Allies, The U.S. LNG Association, strongly endorses the proposal by the Department of Energy to extend its standard 20-year term for authorizations to export natural gas—including domestically produced LNG— through December 31, 2050, for countries with which the United States does not have a free trade agreement.

While LNG Allies would prefer extending all existing natural gas export authorizations to December 31, 2050 in a single proceeding, since we believe the public interest determination in all cases is the same, we can also support DOE’s proposal of a voluntary application process for existing authorization holders via individual proceedings, as long as this can be accomplished in an expedited manner.