



[www.ogel.org](http://www.ogel.org)

ISSN : 1875-418X  
Issue : Vol. 17 - issue 5  
Published : November 2019

This paper is part of the OGEL Special Issue on "Natural Gas Pipeline Construction and Regulation" edited by:



**T.J. Dimitroff**

*Roland Berger GmbH;  
Infrastructure  
Development  
Partnership LLP*

[View profile](#)



**K. Talus**

*Tulane Center for  
Energy Law,  
Tulane Law School;  
UEF Law School;  
University of Helsinki*

[View profile](#)

#### Terms & Conditions

Registered OGEL users are authorised to download and print one copy of the articles in the OGEL Website for personal, non-commercial use provided all printouts clearly include the name of the author and of OGEL. The work so downloaded must not be modified. **Copies downloaded must not be further circulated.** Each individual wishing to download a copy must first register with the website.

All other use including copying, distribution, retransmission or modification of the information or materials contained herein without the express written consent of OGEL is strictly prohibited. Should the user contravene these conditions OGEL reserve the right to send a bill for the unauthorised use to the person or persons engaging in such unauthorised use. The bill will charge to the unauthorised user a sum which takes into account the copyright fee and administrative costs of identifying and pursuing the unauthorised user.

For more information about the Terms & Conditions visit [www.ogel.org](http://www.ogel.org)

© Copyright OGEL 2019  
OGEL Cover v4.0

# Oil, Gas & Energy Law Intelligence

## The Intersection of Natural Gas Pipeline Infrastructure, Federal Permitting, and Supply Considerations for US LNG Exports by M. Lewis and K. Morgan

### About OGEL

**OGEL** (Oil, Gas & Energy Law Intelligence): Focusing on recent developments in the area of oil-gas-energy law, regulation, treaties, judicial and arbitral cases, voluntary guidelines, tax and contracting, including the oil-gas-energy geopolitics.

For full Terms & Conditions and subscription rates, please visit our website at [www.ogel.org](http://www.ogel.org).

### Open to all to read and to contribute

OGEL has become the hub of a global professional and academic network. Therefore we invite all those with an interest in oil-gas-energy law and regulation to contribute. We are looking mainly for short comments on recent developments of broad interest. We would like where possible for such comments to be backed-up by provision of in-depth notes and articles (which we will be published in our 'knowledge bank') and primary legal and regulatory materials.

Please contact us at [info@ogel.org](mailto:info@ogel.org) if you would like to participate in this global network: we are ready to publish relevant and quality contributions with name, photo, and brief biographical description - but we will also accept anonymous ones where there is a good reason. We do not expect contributors to produce long academic articles (though we publish a select number of academic studies either as an advance version or an OGEL-focused republication), but rather concise comments from the author's professional 'workshop'.

OGEL is linked to **OGELFORUM**, a place for discussion, sharing of insights and intelligence, of relevant issues related in a significant way to oil, gas and energy issues: Policy, legislation, contracting, security strategy, climate change related to energy.

# The Intersection of Natural Gas Pipeline Infrastructure, Federal Permitting, and Supply Considerations for US LNG Exports

Mark Lewis and Kirk Morgan \*

## Introduction

As the world continues to seek ways to utilize less carbon-emitting energy sources, natural gas has become increasingly important to providing the necessary reliability and security of supply for power generation in a manner that is more environmentally friendly than other alternatives. One of the challenges to the increasing availability of natural gas-fueled power is the need to transport abundant natural gas supplies from the world's production areas to the areas of market demand. In the US and other regions of the world that are both major producers and consumers of natural gas, pipelines serve as the primary means of transportation. With the advent of the shale gas revolution, the US has significantly increased its gas production, ensuring sufficient supply to handle its own needs and becoming an exporter of liquefied natural gas ("LNG"). In fact, the US is now the world's largest producer of natural gas.<sup>1</sup> In 2018, the US provided 6.6% of all LNG imported globally, which represented a 68.7% increase from 2017, and its share of the global LNG market is set to increase in 2019 and beyond.<sup>2</sup> Of course, natural gas cannot be transported in its natural state other than by pipeline, and transportation of gas by pipeline from the US to European or Asian gas markets is not feasible, as pipeline transportation becomes uneconomic for distances beyond 3,000 km. Thus, in order for US natural gas to be exported to world markets, gas must be liquefied so that it can be transported in special cryogenic ocean-going vessels to faraway markets, where the LNG is then regasified and transported to consuming markets via pipeline. Whereas immediately prior to the shale gas revolution, LNG regasification and import terminals were the focus of many US development efforts, over the past two decades those terminal projects have been largely converted to or replaced with LNG liquefaction export terminals. US natural gas pipeline infrastructure serves as the critical link between the supply of US natural gas and those gas liquefaction and LNG export terminals.

This article discusses issues with which buyers of US-sourced LNG should be familiar, primarily focusing on US natural gas supply and pipeline development issues that are important to purchasing decisions by buyers of US-sourced LNG. Because of the large US domestic market for natural gas, purchasing US-sourced LNG differs from buying LNG sourced from a country where local production is primarily an LNG export commodity. In addition, US regulatory issues, both with respect to the development of and contracting on pipelines

---

\*Bracewell LLP (<https://bracewell.com/>) is a leading law and government relations firm. Our knowledge of the commercial, legal and governmental challenges faced by clients across the oil & gas industry enables us to provide innovative solutions to facilitate transactions and resolve disputes. **Mark Lewis** ([mark.lewis@bracewell.com](mailto:mark.lewis@bracewell.com)) serves as managing partner of the firm's Washington, DC office. His practice focuses on oil and gas pipeline and related midstream commercial and regulatory matters, both in the United States and throughout the world. **Kirk Morgan** ([kirk.morgan@bracewell.com](mailto:kirk.morgan@bracewell.com)) is a partner in the firm's Washington, DC office. He too focuses on oil and gas projects, transactions and controversies, acting for owners and operators of midstream infrastructure. Mr. Lewis and Mr. Morgan would like to thank their colleagues George Fatula, Nina Howell, Kathryn Penry and Jasmine Lee for their invaluable contributions to this article.

<sup>1</sup> See David Bradley, *U.S. Set Combined Natural Gas, Oil Production Record in 2018*, NAT. GAS INTELLIGENCE (Aug. 20, 2019), <https://www.naturalgasintel.com/articles/119335-us-set-combined-natural-gas-oil-production-record-in-2018>.

<sup>2</sup> See Jude Clemente, *U.S. Liquefied Natural Gas Hits Record Highs Again*, FORBES (Jan. 6, 2019, 7:36 PM), <https://www.forbes.com/sites/judeclemente/2019/01/06/u-s-liquefied-natural-gas-hits-record-highs-again/#5832d0bb141e>.

necessary to transport US natural gas to liquefaction and export facilities and with respect to LNG exports themselves, must be understood and considered when making purchasing decisions. Specifically, this article addresses: (i) the different points along the LNG value chain at which a buyer of natural gas or LNG may purchase the product, and the implications associated with these different purchase points and (ii) the US permitting process for interstate natural gas pipelines and LNG facilities, including the potential implications of that permitting process for LNG buyers. In addressing these issues, this article discusses US natural gas markets, which are important to understand if purchasing US-sourced gas, and then seeks to identify and explain variables within the US gas market, including those linked to pipeline transportation in the US, that affect the price, availability, and relative accessibility of natural gas to be exported as LNG.

## **The United States' Transition to Being an LNG Exporter**

Since 2016, the US has been exporting LNG from the lower 48 states of the continental United States.<sup>3</sup> Since then, the demand for LNG around the world, including from the US, has been rising, both to satisfy demand for clean burning fuel and to provide geopolitical security and reliability of supply where predominant sources of natural gas may carry political risk. Because the notion of US LNG exports has become a reality relatively recently, there are many salient issues about the US natural gas market with which LNG buyers may not be familiar. Many of these issues derive from the fact that the US has a well-developed, sophisticated, and highly liquid natural gas market with an integrated pipeline grid that allows US gas from almost every North American producing basin to reach almost every North American consuming market. This means that the US gas market stands in stark contrast to many natural gas supply regions in the world where the primary value of the product is derived from its export potential, with only limited domestic consuming markets to serve. In those markets—such as Algeria and Trinidad & Tobago—gas is primarily produced to be liquefied and exported; LNG buyers are not competing with local demand and the upstream value chain is more integrated, with almost all gas targeted for liquefaction facilities and export markets.

US companies are investing in the US LNG market and, specifically, in LNG export capacity. In 2019, it is estimated that the US has 26.1 million tons per year (“tpy”) of liquefaction capacity and it is estimated that by 2023 that number will grow to 210.3 million tpy.<sup>4</sup> This estimated growth includes 94 million tpy that is expected to come from planned projects currently in development, with the remaining 116.3 million tpy expected to come from proposed projects still in their early stages. While it is unlikely that all 116.3 million tpy will reach the development stage, the growth from 26.1 million tpy to 94 million tpy in four years is significant, demonstrating the progress US LNG has made in penetrating the global market. Even at the low end of potential additional liquefaction capacity that may come online, US liquefaction capacity will still be nearly four times what it is in 2019. It seems clear that more and more buyers will continue to purchase US LNG. The question remains, however, on what terms and under what market conditions?

---

<sup>3</sup> See Gaurav Sharma, *US LNG Tipped To Go Global On Abundant Supplies*, FORBES (Mar. 28, 2019, 7:56 AM), <https://www.forbes.com/sites/gauravsharma/2019/03/28/u-s-lng-tipped-to-go-global-on-abundant-supplies/#5de538cb52ec>.

<sup>4</sup> See Will Owen, *'Worldwide LNG Market Forecast to 2023' Report Released*, LNG INDUSTRY (June 24, 2019), <https://www.lngindustry.com/liquid-natural-gas/24062019/worldwide-lng-market-forecast-to-2023-report-released/>.

Many in the global LNG industry are looking to the option of pricing LNG based on a natural gas benchmark not connected to oil.<sup>5</sup> There is appeal to this approach, as gas generally and LNG specifically have evolved into independent, valuable commodities with their own domestic and global markets rather than simply being derivative of oil markets. While aligning LNG with natural gas is a logical step, in that gas pricing will be predicated on all gas markets, others find the established nature of the oil industry to be more stable overall, even if prices do fluctuate in part based on factors that may be unique to oil and not directly relevant to gas markets. Currently, most US LNG export projects “have been contracted on pricing terms directly linked to Henry Hub” in Louisiana.<sup>6</sup> The Henry Hub is the benchmark price for US natural gas commodity pricing and futures pricing. Another natural gas-based pricing benchmark was recently adopted by Cheniere Energy Inc. Cheniere is the developer of the first LNG export project to achieve commercial operation in the lower 48 states at Sabine Pass, Louisiana and at a major export facility in Corpus Christi, Texas. Cheniere recently made headlines by contracting to purchase natural gas for export and sell that gas as LNG using a pricing mechanism linked to internal benchmarks for LNG pricing, with the US producer being paid a netback price derived from LNG pricing rather than the Henry Hub price.<sup>7</sup> Thus, the US producer de-linked the sale of its gas to Cheniere from the Henry Hub and instead will receive a price for its gas tied to global LNG pricing. By striking this long-term purchase deal with producer, Apache Corporation, Cheniere became an early mover away from the domestic pricing mechanism that has been largely employed to date, which may lead others in the market to follow suit. Ultimately, as US LNG is exported in greater volumes and with new export capacity coming online, international pricing benchmarks may supplant the Henry Hub price for sales of US natural gas bound for LNG export markets. This may indicate a movement toward more global gas prices being set on a global market versus the current common practice in US markets of LNG prices being set by reference to domestic US gas pricing. While globalization of pricing may be beneficial to LNG buyers, such buyers must recognize that US gas sellers will always maintain some reference to US domestic gas prices. For a variety of reasons, a seller may not always sell gas into the highest marginal market available. Over the long term, sellers (and their shareholders) will want to ensure that they are maximizing revenue from the sale of their product.

## **The United States’ Role as an LNG Exporter is Likely to Continue**

Regardless of how the pricing mechanisms develop in the short term, US LNG will play an increasingly important role in the world for two reasons. First, at a commercial level, there is an abundant supply of gas in the US and an increased demand for gas around the world, with current and future US LNG liquefaction facilities coming online that are well-positioned to serve that market demand. Second, from a geopolitical perspective, there is growing recognition that LNG in general, and US LNG in particular, can have a moderating influence on the flows of Russian gas into European markets. The simple competitive presence of LNG regasification capacity in Europe, combined with a ready supply of gas and liquefaction capacity in the US, provides a counter to Russian market power in the form of a demonstrably viable competitive alternative. Energy supply provides an important lever for influencing nations’ relations and behavior toward one another and thus the combination of existing and

---

<sup>5</sup> See *id.*

<sup>6</sup> *Id.*

<sup>7</sup> See Sabina Zawadzki, *Cheniere Signals New LNG Pricing Structure With Apache Deal*, REUTERS (June 3, 2019, 12:22 PM), <https://www.reuters.com/article/us-cheniere-apache-lng/cheniere-signals-new-lng-pricing-structure-with-apache-deal-idUSKCN1T4262>.

planned LNG regasification capacity in Europe and the supply and liquefaction capacity in the US diminishes Russia's ability to use gas supply as a geopolitical tool. Because of the ongoing US effort to minimize Russian non-market based influence over energy markets, the US is committed to investing in LNG exports to Europe in particular, as evidenced by the July 2018 Joint EU-US Statement relating to the strengthening of strategic transatlantic cooperation on energy, and particularly in relation to supply of US LNG to Europe.<sup>8</sup>

Another example of the importance of understanding the geopolitical landscape is the ongoing tension with Iran. While the US-Iranian conflict has the negative impact of raising oil prices, it also highlights the instability of parts of the Middle East when compared to the US, not because of instability of particular LNG-producing nations, but because a quarter of the world's supply of LNG<sup>9</sup> and much of the LNG in the region must pass through the Strait of Hormuz and thus may become enmeshed in broader regional conflicts impacting that critical waterway. The US LNG supply and export market looks stable in comparison to some Middle East sources, particularly because it is not necessary for the US LNG supply to pass through the Strait of Hormuz in order to reach European and Asian destination markets.

## **Where Should an LNG Buyer Take Title to Gas, Whether Purchased as Natural Gas or LNG?**

For buyers interested in the US LNG market, the first question is: how upstream should they be in the process? The US LNG market is booming and a new buyer can potentially get involved at each step in the LNG value chain, where there are links between Upstream—production, gathering, processing and transportation of natural gas, Midstream—liquefaction, export and LNG shipping, and Downstream—regasification of LNG and gas distribution.

Market participants may choose to step in at any place on the value chain that serves their economic interests, subject of course to the mutual demands and preferences of counterparties. For purposes of this article, a buyer of gas for ultimate export as LNG may seek (i) to purchase gas upstream, either by investing directly in US production or by purchasing gas directly from the producer upstream of the pipeline grid, (ii) farther downstream, perhaps at a liquid trading hub, (iii) even farther downstream, immediately upstream of the liquefaction facility, or (iv) as LNG at the tailgate of the liquefaction facility.<sup>10</sup> Where title is taken is a function both of the desires of the ultimate LNG buyer and the selling counterparty. In the US, there may be willing sellers at various points of the value stream, including (i) natural gas producers that own their gas from production through to liquefaction (e.g., by either acquiring tolling rights in the liquefaction facility or by owning the liquefaction facility itself) thereby influencing transactions at each step of that value chain, (ii) marketers who purchase natural gas from the gas producers in advance of liquefaction, either prior to transportation or at the fence of the liquefaction facility, and (iii) sellers of the LNG commodity following liquefaction, either LNG liquefaction facility owners or entities that hold tolling rights through the liquefaction facility.

The farther downstream the buyer is involved, the less direct control over the product it has. On the other hand, downstream purchases can mitigate a buyer's exposure to upstream

---

<sup>8</sup> See Press Release, European Comm'n, Joint US-EU Statement following President Juncker's Visit to the White House (July 25, 2018), [https://europa.eu/rapid/press-release\\_STATEMENT-18-4687\\_en.htm](https://europa.eu/rapid/press-release_STATEMENT-18-4687_en.htm).

<sup>9</sup> See Stephen Stapczynski and Dan Murtaugh, *A U.S.-Iran Conflict Could Impact Gas Markets Much More Than Oil*, BLOOMBERG (June 21, 2019, 12:00 PM), <https://www.bloomberg.com/news/articles/2019-06-21/a-u-s-iran-conflict-could-impact-gas-markets-much-more-than-oil>.

<sup>10</sup> While buyers may purchase LNG Ex Ship in the global market, transactions downstream of the tailgate of the LNG liquefaction facility are beyond the scope of this article.

production risks and risks in the liquefaction project itself, which requires an extremely high capital investment. The location on the LNG value chain where a buyer chooses to step in will likely be driven by the nature of its business, capabilities, and expertise. The security, variability, and risks to the buyer's supply will vary with and depend on its position in that value chain. Inherent in the calculation of where (or if) to purchase natural gas (in contrast to purchasing LNG) is the decision about a market participant's desired role within the US natural gas pipeline transportation market. Natural gas bound for export flows through a complex web of pipelines to journey from wellhead, to processing, to the LNG export facility, and the point of entry of a given market participant into that value chain depends in part on whether the market participant is willing and able to arrange for pipeline transportation services and related matters with pipeline transportation providers. These factors will affect the price, security of supply, and risk/reward calculations of anyone seeking to source natural gas for export from the US

A natural gas producer can control its own supply—the success and efficiency of its exploration and production operation will be the main driver of the security and stability of that supply at the most upstream point. However, the producer has significant operating capital requirements and is exposed to commodity price shifts, and so has significant financing and hedging needs to address.

A buyer of natural gas or LNG farther down the value chain (i.e., post production) can avoid the capital and financing issues facing the producer, and may also be able to negotiate a fixed price for its purchases that mitigates or removes commodity price exposure. However, such buyers trade those concerns for supply security issues that they must figure out how to manage (including the supply security associated with the ultimate creditworthiness of the natural gas producer/seller), as well as the need to secure and pay for pipeline capacity to transport its gas downstream. The next section will discuss pipeline infrastructure issues faced by market participants. Purely from a supply perspective, a marketer purchasing gas from a producer has to contend with the risk that the producer's supply will be impacted by the producer's own liquidity or financing issues, or by force majeure events that hinder production. A buyer can seek to mitigate those risks by contractual remedies and protections, or it may look to diversify its supply by stepping in farther down the value chain and purchasing supply from another market participant that has access to a portfolio of supply options, thereby mitigating the risk that any particular producer's supply will be threatened by upstream issues. However, costs associated with activities upstream of a given buyer's link in the chain tend to pile up the farther downstream from production one goes, and transportation, processing, storage, and other such costs will drive up the price for downstream purchasers. Some of these can be addressed and guarded against by contractual measures, and a particular buyer must assess its own financial position, expertise, and physical capabilities to determine where it best fits into the LNG value chain. For some marketers, purchasing LNG after liquefaction and thereby assuming responsibility for covering upstream sellers' costs associated with transporting and converting natural gas to export-ready LNG is advantageous because the buyer has the ability to recoup those costs plus a reasonable margin by exporting and marketing the gas to distributors or end-users.

In addition to the costs associated with taking title to gas farther downstream in the value chain, buyers downstream of production but upstream of liquefaction must make significant logistical efforts to shepherd their gas through the process from the point of purchase to liquefaction and export. Natural gas produced at the well-head must often be processed to remove liquids, which then must be transported, stored, fractionated, and/or sold, and at each step in the process

natural gas bound for liquefaction must be transported by pipeline and often stored in storage caverns. These activities rely on complex infrastructure, and buyers taking title to gas for transportation, storage, and liquefaction must manage the contractual arrangements for each of those services and manage the risk that force majeure, maintenance, or similar events could interrupt or impede the progress of the product from the field to the liquefaction facility.

As alluded to above, a recently publicized long-term gas supply transaction between Apache and Cheniere provides an interesting example of an upstream producer and a downstream LNG exporter each moving on the value chain to essentially bridge the typical gap between production and exportation that could be filled by numerous third parties taking title to gas along the way. The agreement provides that Apache will sell 140,000 MMBtu/day of natural gas to a Cheniere subsidiary, Corpus Christi Stage III, for fifteen years. Cheniere will market the LNG and Apache will receive an LNG price for the gas delivered. This agreement is meant to ensure reliability from a producer of LNG and benefit Apache by giving it access to global LNG pricing and flow assurance for the gas.<sup>11</sup> The key to this agreement is Cheniere's ability to market the LNG. Other LNG market participants may seek to emulate this model in an effort to continue to grow LNG exports and ensure both security and reliability of supply on the marketing end. While the pipeline transportation arrangements that underpin this transaction are not publicly known in detail, suffice it to say that by effectively condensing all of the responsibilities to shepherd the gas through the value chain between them, these two parties have had to come to terms on who will ensure sufficient capacity to transport the gas all the way to the Corpus Christi LNG facility and how the costs and risks associated with that transportation will be shared by the parties.

Any buyer needs to consider the commercial opportunities associated with its positioning in the value chain. Using the example transaction discussed above, a producer may incur a comparatively high degree of risk by selling gas directly to a downstream LNG exporter tasked with marketing its product because it is entirely dependent on the success of the marketer. However, by limiting the participation of third parties in the value chain, there is high reward potential, provided that the LNG is successfully marketed at favorable prices throughout the term of the agreement.

## **US Regulatory Issues Can Have a Significant Impact on the Construction, Operation, and Utilization of the Infrastructure Used to Facilitate LNG Exports**

The export of LNG requires significant utilization of pipeline and related infrastructure. As a starting point, whether the buyer is itself contracting for pipeline service or buying gas or LNG downstream of the pipeline system, a buyer must consider if there is an existing pipeline infrastructure to transport gas to the LNG liquefaction facility. There is a big difference between utilizing infrastructure already in place and having to construct new infrastructure. If there is an existing pipeline infrastructure, a buyer needs to know whether there is capacity available in the pipelines to handle the quantity of gas nominated for liquefaction. The quality of service also plays a role in assessing the pipeline. For instance, "firm" capacity is not subject to curtailment except for events of force majeure. However, various degrees of "interruptible" or "non-firm" capacity, which is subject to curtailment, may be available some or even much

---

<sup>11</sup> See Chris Ross, *A Novel Approach to LNG Contracting*, FORBES (June 5, 2019, 3:16 PM), <https://www.forbes.com/sites/uhenergy/2019/06/05/a-novel-approach-to-lng-contracting/#4198e5dd2ec1>.

of the time. Another important item to consider is whether there is storage capacity available that a buyer, or the buyer's supplier, can use to mitigate against pipeline interruptions.

If new pipeline capacity is required, there will be different pipeline infrastructure questions at play that must be considered by the ultimate buyer, regardless of whether that buyer is contracting directly for use of such infrastructure or relying on it being there for its supplier to use. When new pipeline capacity is required, whether a greenfield pipeline or an expansion of an existing pipeline, timing is very important. Buyers should assess what the anticipated timing for in-service is and if that timing realistically can meet the buyer's commercial needs.

Key to timing is whether the pipeline will be an intrastate pipeline or an interstate pipeline. Intrastate pipelines may need to satisfy a handful of federal requirements, but are largely subject to the jurisdiction of state regulatory bodies. By contrast, interstate pipelines are subject to the jurisdiction of the Federal Energy Regulatory Commission ("FERC"). Whether a proposed pipeline qualifies as an intrastate pipeline or interstate pipeline turns on a jurisdictional analysis that considers, among other things, the sources of gas, the points of interconnection, and the location of the pipeline. Opposition to pipeline development in the US has become more pronounced in recent years, which has prolonged the approval process that new pipelines must navigate before commencing construction. This has been especially true for interstate pipelines subject to the jurisdiction of FERC. As a result, many pipeline developers are seeking to construct new pipelines to facilitate LNG exports as intrastate pipelines, believing the state approval process will be quicker than the FERC approval process. While it is true that intrastate pipelines may obtain regulatory approvals more quickly, buyers should know that intrastate pipelines do not have the same flexibility as interstate pipelines to connect to other pipelines and supply sources. This limitation is mitigated in part by what is known as "Section 311" transportation service, which is a somewhat arcane reference to a provision of a 1978 statute that allows intrastate pipelines to provide the type of transportation services that are more typically provided by interstate pipelines, e.g., transporting gas sourced from states other than the state in which the pipeline is located. However, to make use of the Section 311 transportation service, buyers must make certain representations to the intrastate pipeline as to their reasons for using the service. In addition to being sensitive to the timing issues associated with the approval and construction of new pipelines, it is important for buyers to be knowledgeable about the different services provided by pipelines and how the differences between an intrastate pipeline and interstate pipeline may impact their ability to access certain supply regions.

Of course, pipelines are not the only infrastructure that is needed to facilitate the export of LNG. Liquefaction facilities are also a key part of the necessary infrastructure. FERC regulates the proposed construction and operation of LNG terminal facilities located onshore or in near-shore waters that will be used to export LNG to foreign countries. Generally, the process for applying for and obtaining authorization to construct and operate an onshore LNG terminal is largely similar to those procedures used for reviewing applications to construct natural gas pipelines subject to FERC's jurisdiction. Specifically, an applicant must initiate and complete the pre-filing process, which involves preparing initial drafts of the environmental documents—the resource reports—for review and comment. The applicant must then submit its formal application. Interested parties may intervene in the proceeding. FERC will prepare a document, typically an environmental impact statement ("EIS"), reviewing the potential environmental impacts of the project and possible alternatives. FERC will then rely on the EIS in making conclusions about the possible environmental impacts of the proposed LNG terminal



and whether construction and operation of the LNG terminal is consistent with the public interest. FERC's review process typically takes one to three years.

For liquefaction facilities proposed for offshore federal waters, such as a floating liquefaction vessels, the Maritime Administration ("MARAD") will review and adjudicate an application for the liquefaction facilities. MARAD's licensing process involves a pre-application process to confer with MARAD, followed by a mandatory one-year review period. Like FERC, MARAD is the lead agency for conducting the required environmental review. Because few offshore liquefaction facilities have been proposed, it is difficult to offer meaningful guidance as to how long the MARAD approval process may take. The review process for a given project depends greatly on the specifics of the project and the preparation and strategy of the applicant.

A hot button issue currently being debated within the US is whether environmental reviews conducted by FERC or MARAD should consider the significance of a project's contribution to climate change from increased greenhouse gas emissions. The case law regarding this highly contested issue is still evolving. To the extent that courts and policymakers require greenhouse gas emissions to factor into FERC's or MARAD's review of pipeline and liquefaction facilities, the review process for such infrastructure could become significantly more burdensome and prolonged.

*Sierra Club v FERC (Sabal Trail)*<sup>12</sup> provides an example of FERC's approval of the construction and operation of new pipelines being challenged on the grounds that the approval did not sufficiently consider the climate change impacts of the project. The petitioners argued that, although FERC gave an assessment of the environmental impact of the pipelines, that assessment was inadequate. The court held that more information was needed regarding the greenhouse gas emissions and, without such information, FERC failed to properly consider the impacts of climate change from the project. While FERC was able to address this particular challenge on remand,<sup>13</sup> buyers and exporters of US natural gas and LNG should know that new natural infrastructure projects are vulnerable to delay stemming from challenges that regulators are not sufficiently taking the potential climate change impacts of projects into account in the permitting process, or that such projects should not be permitted at all.

## **Infrastructure Aside, Additional Authorizations are Required to Export LNG**

Buyers should be aware that the end point destination of the LNG is also an important factor when deciding to buy in the US LNG market. The Department of Energy ("DOE") has authority to approve or disapprove the import or export of the commodity of natural gas itself.<sup>14</sup> This power is exclusive to the DOE. Typically, an LNG terminal that obtains authority from the DOE to export LNG obtains "agency rights" allowing it to export from the terminal on behalf of others who actually hold title to the LNG. LNG terminals exporting or proposing to export LNG typically have or will acquire authorization to export to both Free Trade Agreement ("FTA") and Non-Free Trade Agreement ("Non-FTA") countries. FTA countries are those countries with which the US has a free trade agreement that requires national treatment for

---

<sup>12</sup> 867 F.3d 1357 (D.C. Cir. 2017).

<sup>13</sup> See *Fla. Se. Connection, LLC, Transcon. Gas Pipe Line Co., LLC, and Sabal Trail Transmission, LLC*, 162 FERC ¶ 61,233 (2018), *reh'g denied*, 164 FERC ¶ 61,099 (2018).

<sup>14</sup> See DOE Delegation Order No. 00-004.00A (May 16, 2006); *Golden Pass Products LLC and Golden Pass Pipeline LLC*, 157 FERC ¶ 61,222 at P 23 & n. 19 (noting that the [DOE] Secretary "has not delegated to the Commission any authority to approve or disapprove the import or export of the commodity itself").

trade in natural gas and include Australia, Bahrain, Canada, Chile, Colombia, Dominican Republic, El Salvador, Guatemala, Honduras, Jordan, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, Republic of Korea and Singapore. The exportation of natural gas or LNG to a FTA country shall be deemed consistent with the public interest. As a result, applications to export LNG to FTA countries are not controversial and are readily granted by DOE.

For applications seeking to export natural gas or LNG to Non-FTA countries, the review process is more complicated. This is especially important because many of the largest LNG markets in the world are non-FTA countries, including China, Japan, Poland, and Spain. For exports to Non-FTA countries, DOE will analyze the application's economic impacts, international impacts, security of natural gas supplies, and environmental impacts, among other considerations. In practice, DOE will issue a final order authorizing LNG exports to Non-FTA countries only after FERC or MARAD issues a final order authorizing the construction and operation of the LNG terminal. Thus, FERC or MARAD review is typically the primary factor affecting the timing of a DOE order on a long-term Non-FTA export application. DOE orders authorizing exports to Non-FTA countries typically specify a duration, i.e., short term (two years or fewer) or long term (up to 20 years), as requested in the application. The orders also will specify an amount of LNG authorized for export, stated in billions of cubic feet of natural gas per year (Bcf/year). The export quantity is typically limited to the liquefaction capacity of the LNG terminal and is not additive to an amount authorized for export pursuant to a FTA export authorization, though DOE may make allowances for commissioning volumes or make-up volumes. Further, for long-term exports to Non-FTA countries, the order will specify that exports must originate from the specific LNG terminal seeking the export authorization, meaning that an exporter could not use one export authorization to export LNG from multiple LNG terminals.

## **Conclusion**

The US LNG market is a flourishing industry to enter. The demand for US LNG is high and the US is supporting the growth of this industry and providing LNG to markets around the world. A careful understanding of the highly integrated and multifaceted US pipeline system, and the broader permitting variables that can affect the sourcing of natural gas for liquefaction and export as LNG, is key to successfully navigating US natural gas markets for production of LNG. Sophisticated buyers will take the information provided and utilize it to make the best and most informed decision before entering into this sphere.