



OFFICE OF PUBLIC PARTICIPATION FEDERAL ENERGY REGULATORY COMMISSION



FERC & Liquefied Natural Gas (LNG) Export Facilities

Natural gas generally refers to gas, primarily methane, that forms naturally from the decomposition of organic material. Common uses for natural gas include commercial and residential heating and cooking, electric generation, transportation, industrial applications, and agro-chemicals.

NATURAL GAS EXPORT

According to the Department of Energy, the United States is the world's largest producer of natural gas, and some portion of the U.S.'s natural gas supply is exported to the international market. When natural gas is exported, it is often condensed into its liquid form—liquefied natural gas (LNG).

The production of LNG occurs at industrial facilities often called "liquefaction facilities." Liquefaction facilities can range in size and capacity to support large, mid-scale, or small LNG export terminals. After entering these facilities from pipelines, the natural gas is cooled, stored in large tanks, and then loaded onto specially designed vessels (LNG carriers) that transport the LNG to overseas customers.

LNG PROCESS FROM CONCEPT TO CONSTRUCTION

Under section 3 of the Natural Gas Act, FERC is responsible for authorizing the siting and construction of onshore and near-shore LNG export facilities. As part of that role, FERC requires companies seeking to develop LNG export facilities

Did you know?

Liquefied natural gas or LNG, as it commonly referred to, is produced by reducing the temperature of the natural gas to about -260 degrees Fahrenheit—a process known as "liquefaction." As a liquid, LNG is about 600 times more dense than natural gas, which means LNG can be stored and transported much more efficiently than the equivalent amount of gas. To be used again, the LNG must be warmed after import so that it transitions back its gaseous form—this warming and vaporization process is called "vaporization" or "regasification."

to participate in a six-month pre-filing process, which helps a project proponent develop information necessary for their application to the Commission.

Once an application is received, staff evaluate the proposal on factors including environmental effects, public safety and reliability impacts, engineering design, and other issues concerning export LNG facilities. As part of its review, FERC must comply with the National Environmental Policy Act (NEPA) and other relevant laws. The NEPA-required environmental review includes public scoping and comprehensive analyses of potential impacts on public safety, air quality, noise impacts,



environmental justice, socioeconomics, groundwater, waterbodies, wetlands, vegetation, wildlife, threatened and endangered species, geology, cultural resources, visual impacts, and other environmental concerns. The duration of FERC staff's review of new LNG applications can be less than one year or may take multiple years depending on the scope of the project and the issues identified in an application.

Following FERC staff's assessment of the proposal, the FERC Commissioners will determine whether the proposal comports with the public interest and should be authorized. This determination will be made in a Commission order authorizing or denying the application under section 3 of the Natural Gas Act and often will include additional requirements, commonly referred to as conditions. If approved by the Commission and other relevant permitting agencies, construction of an LNG facility may take two or more years. LNG Projects that are approved and built are subject to FERC oversight for as long as the facility is in operation. FERC currently regulates twenty-seven operational LNG facilities.

OTHER LNG REGULATORY AUTHORITIES

The Department of Energy must authorize the export of the LNG.

The United States Coast Guard regulates the marine transfer areas of LNG export facilities and the movement of LNG carriers to and from the export facility. The Coast Guard also regulates the security of the entire terminal and navigational safety and port security issues.

The Department of Transportation, Pipeline and Hazardous Materials Safety Administration prescribes the minimum federal safety standards for LNG facilities that are located onshore.

Depending on the location of the project, other federal regulators may be involved including:

- United States Army Corps of Engineers
- United States Fish and Wildlife Service
- National Marine Fisheries Service
- Environmental Protection Agency

State and local authorities also have regulatory authorities applicable to LNG export facilities.

LNG EXPANSION PROJECTS

As a result of increased international demand for natural gas, FERC has noticed an uptick in proposals for modifications to or expansion of existing LNG export facilities. Proposals to expand or modify LNG export facilities are reviewed by FERC in a manner similar to proposals to construct new LNG export facilities. Before an LNG export facility can be expanded or modified it must obtain authorization from FERC as well as authorizations, approvals, and permits from other federal, state, and local regulatory authorities. Companies seeking to significantly expand or modify LNG facilities may also be required to participate in FERC's pre-filing process and NEPA review.

NEED HELP?

The Office of Public Participation is committed to promoting LNG awareness. This document provides a broad overview of LNG and was created to help the reader better understand FERC's role and authority in energy regulation and to assist those wishing to learn more. However, if more assistance is needed, OPP team members are ready to answer questions and assist in identifying more specific information related to LNG.



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