# PHMSA LNG Workshop

**Charlie Riedl Executive Director at the Center for LNG** 

**November 15, 2022** 





# Who We Are



















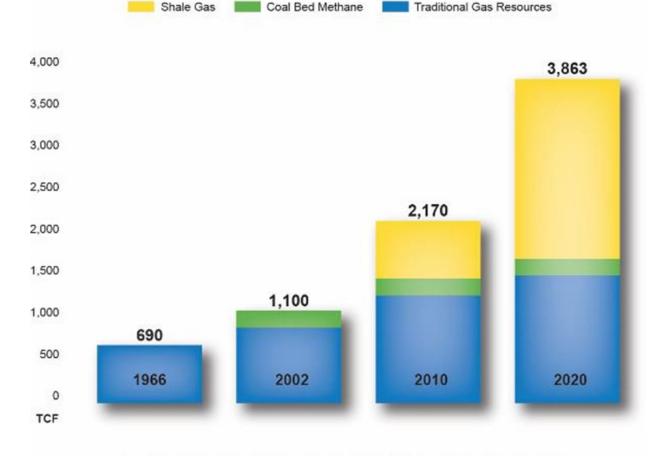


# **U.S Natural Gas: How We Got Here**

### Shale revolution reshaped U.S. Natural gas and changed the conversation from imports to exports

### U.S. Recoverable Natural Gas Resources

Up Almost 80% in Last Decade



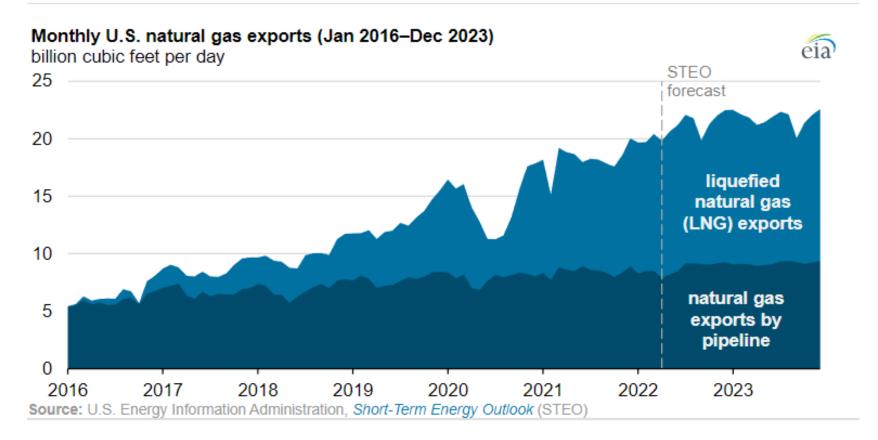
Data Source: Potential Supply of Natural Gas in the U.S. 2020, Potential Gas Committee, 2021



## **U.S. LNG: How We Got Here**

Since 2016, U.S. LNG nameplate capacity has risen to over 12 Bcf/d.

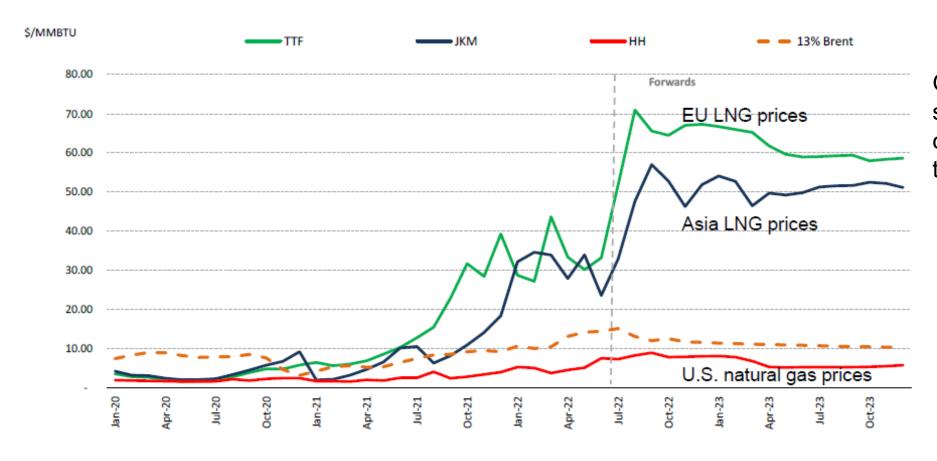
Liquefied natural gas exports continue to lead growth in U.S. natural gas exports





# **Competition for Cargoes**

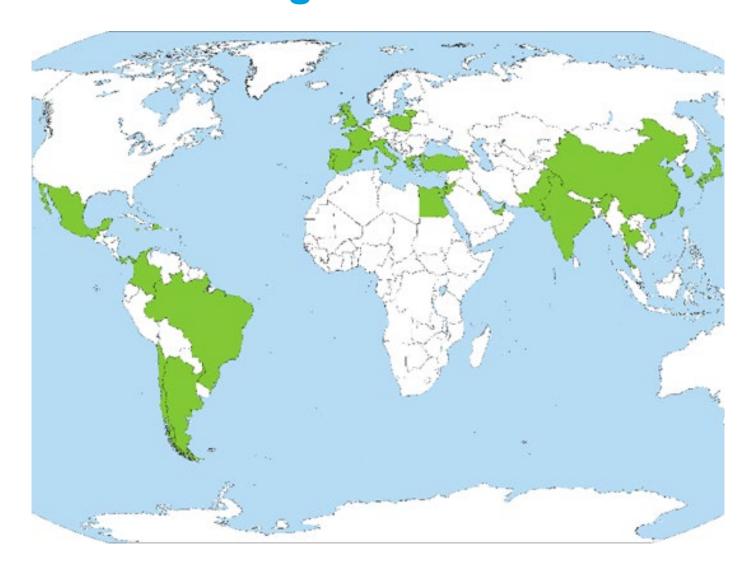
### Global LNG price



Global Demand for LNG is strong, increased competition between two of the largest markets for LNG



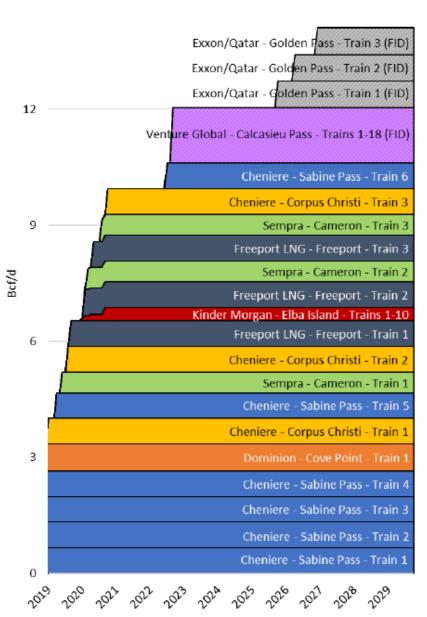
# U.S. LNG cargoes have reached more than 35 countries, and the list continues to grow





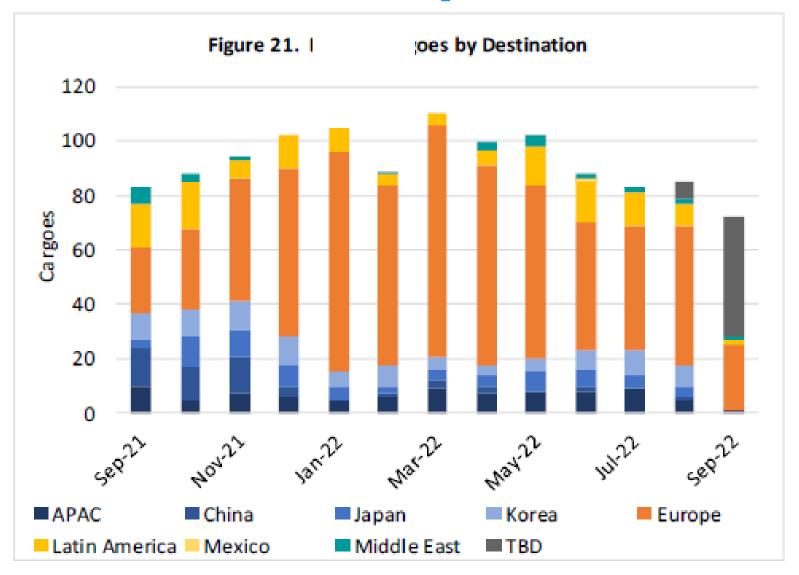
# **U.S. LNG Outlook**

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# **Demand in Europe Grows**

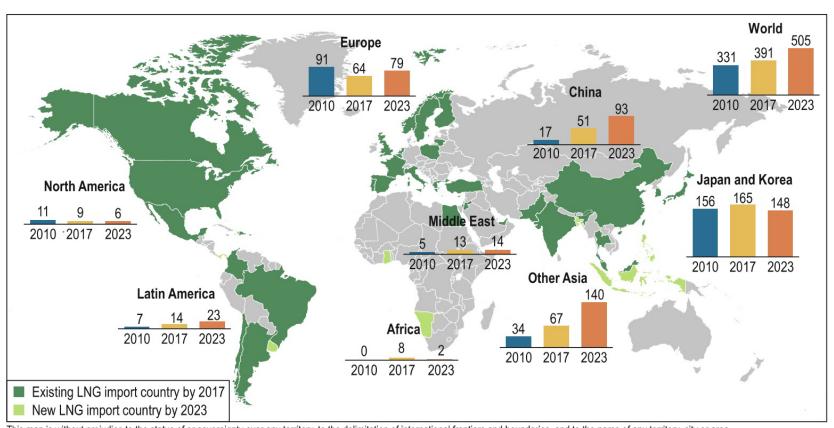


U.S. is Europe's Largest Supplier of LNG



# Global Long-Term Supply & Demand Outlook

### LNG import countries and volumes (in bcm), 2010-23



EIA, IEA, and others all point to continued growth in global LNG market



This map is without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.

## **STEPS FOR LNG** PROJECT APPROVAL

The One Federal Decision Policy established a two-year goal for the federal approval process for an LNG facility. This is the process to begin construction of a new facility:



Pre-filing: Applicants must pre-file at the Federal **Energy Regulatory** Commission (FERC) a minimum of 6 months before formally filing.



Filing: Applicants file all materials with FERC, the Pipeline and Hazardous Materials Safety Administration (PHMSA) and coordinating agencies.

PRE-FILING ALLOWS APPLICANTS TO COMMUNICATE FREELY WITH COOPERATING AGENCIES TO IDENTIFY AND RESOLVE ANY ISSUES BEFORE A FORMAL FILING.

(S)



### STEP 3

Letter of Determination: PHMSA must confirm the filing complies with specific provisions and safety standards.



### STEP 7

Authorization to start construction.



Joint record of decision: Cooperating agencies with environmental review authorization or consulting responsibilities deny or approve the project.



### STEP 5

FERC Final Order: Commissioners deny or approve the permit. This may include conditions to be met before construction is authorized.



Final NEPA Document: All involved agencies coordinate on required permits, consults and other approvals to ensure it meets the parameters outlined in the National Environmental Policy Act (NEPA).

AGENCIES INVOLVED INCLUDE FERC, THE DEPARTMENT OF ENERGY (DOE), THE U.S. COAST GUARD, AND PHMSA.



Non-FTA Export Approval: If the facility plans to or wants to export to non- Free trade Agreement (FTA) countries, the DOE must separately complete a review of the application to determine whether the exports are in the public interest. Parties can file for non-FTA export approval at any step in the process.

THE JONES ACT OF 1920 MANDATES THAT ALL GOODS SHIPPED BETWEEN U.S. PORTS MUST BE TRANSPORTED BY U.S. FLAGGED VESSELS. BECAUSE THERE ARE CURRENTLY NO U.S. FLAGGED LNG VESSELS, U.S. LNG CANNOT BE TRANSPORTED TO OTHER LNG IMPORT FACILITIES IN THE COUNTRY.



Final Investment Decision (FID): Those

owning and/or operating the project

approve-or sanction-the project's

THIS OCCURS BEFORE CONSTRUCTION BUT

AGREEMENTS FOR MOST OF THE PROJECTED

CAPACITY ARE SECURED WITH GAS SUPPLIERS

AFTER APPROVALS ARE RECEIVED AND

future development.

AND LNG OFF-TAKERS.



### STEP 10

Construction begins.

**IT TYPICALLY TAKES 2-5** YEARS AFTER THE FID FOR A FACILITY TO SHIP ITS FIRST COMMERCIAL CARGO.





# Thank you

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