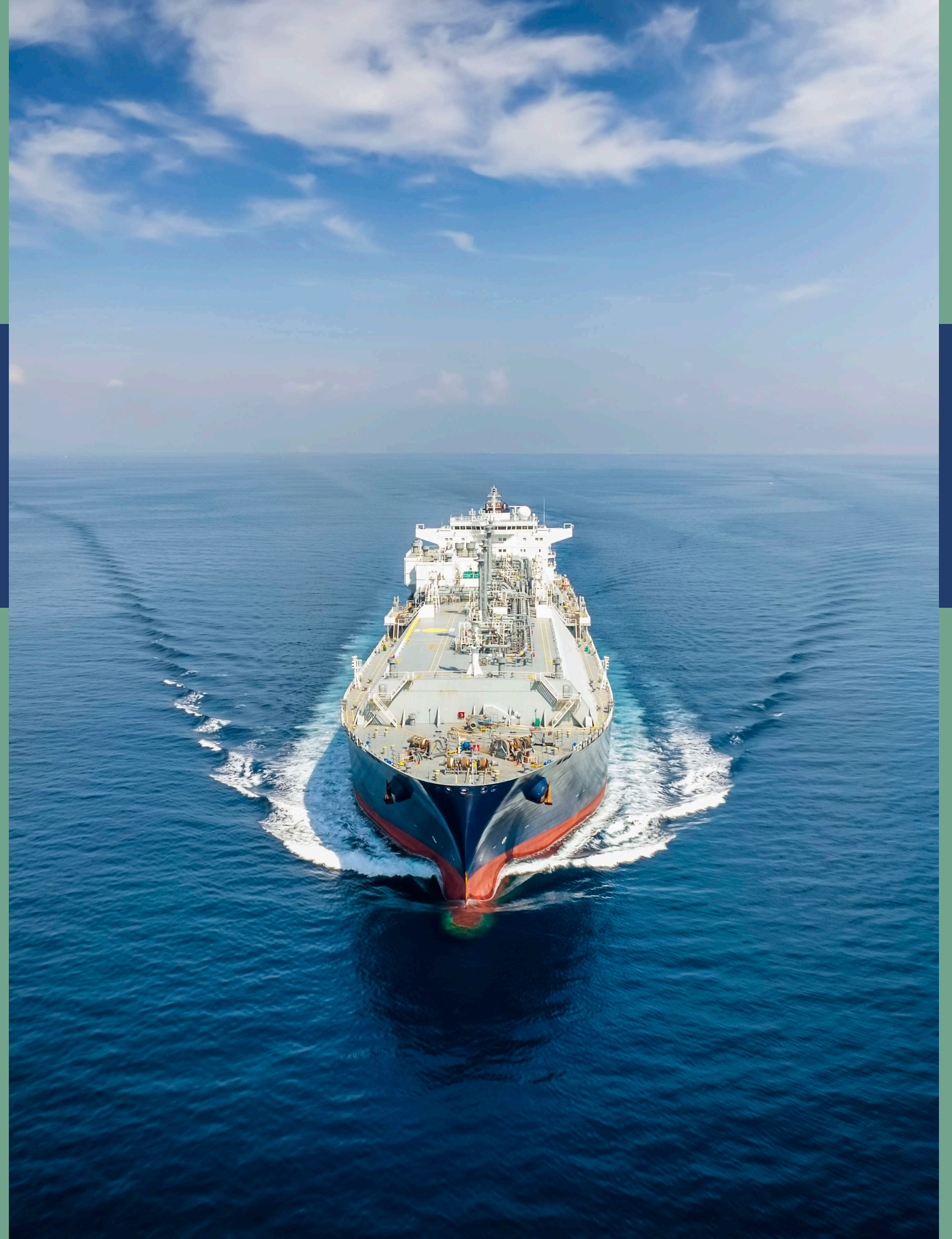


# USLNG Exports

America's Rural Energy  
Coalition Conference  
May 3, 2023

**LNGAllies**<sup>™</sup>  
The USLNG Association



# LNGAllies™

The USLNG Association



**About Us:** Trade association of the USLNG export industry, major natural gas producers, and allied service companies.



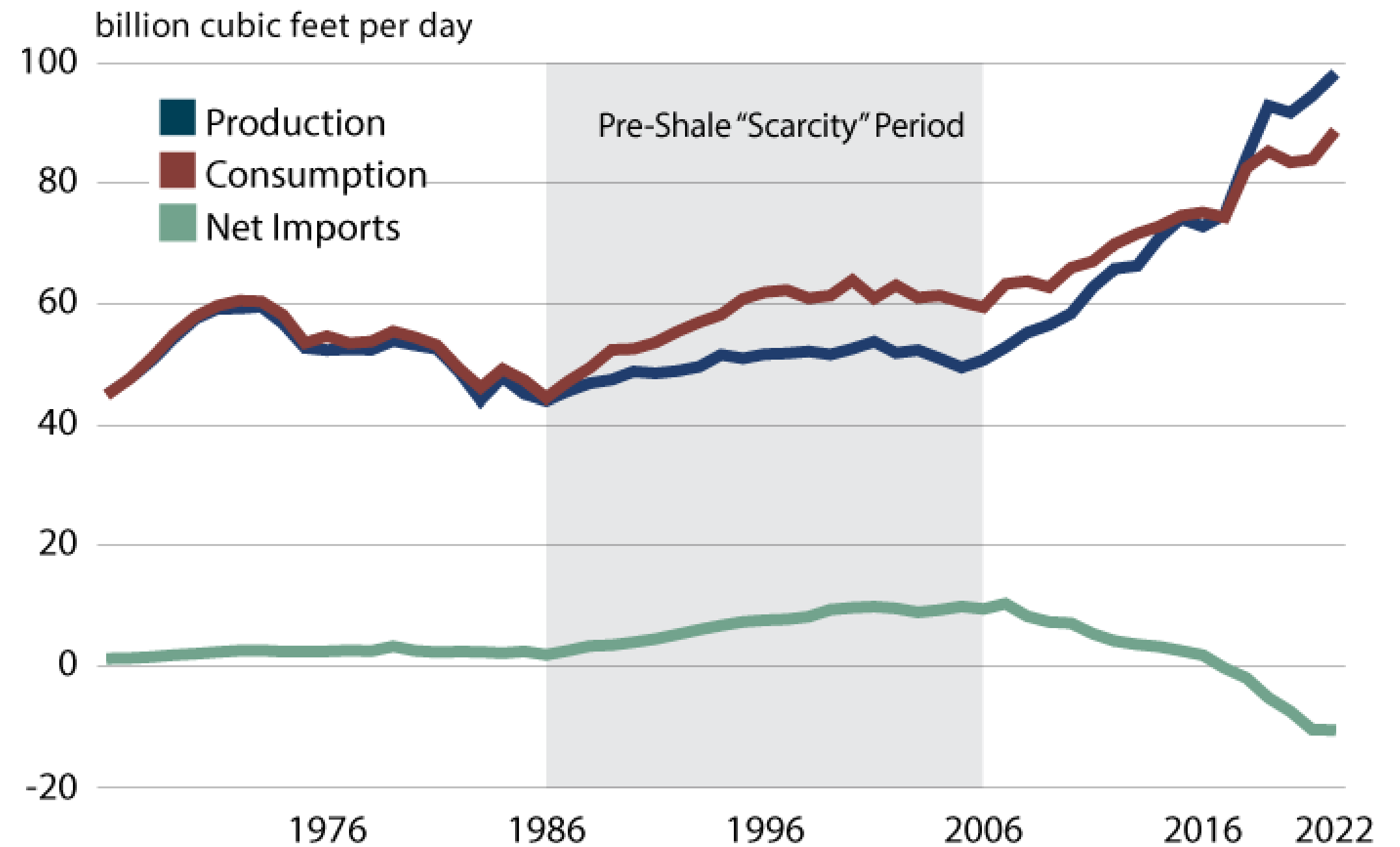
**Mission:** To help bring the climate, environmental, geostrategic, and economic benefits of U.S. natural gas to the world.

# U.S. Natural Gas From Shortage... To Abundance



# Impact of Shale From Gas Importer... To No. 1 Exporter

## U.S. Natural Gas Production, Consumption, Imports



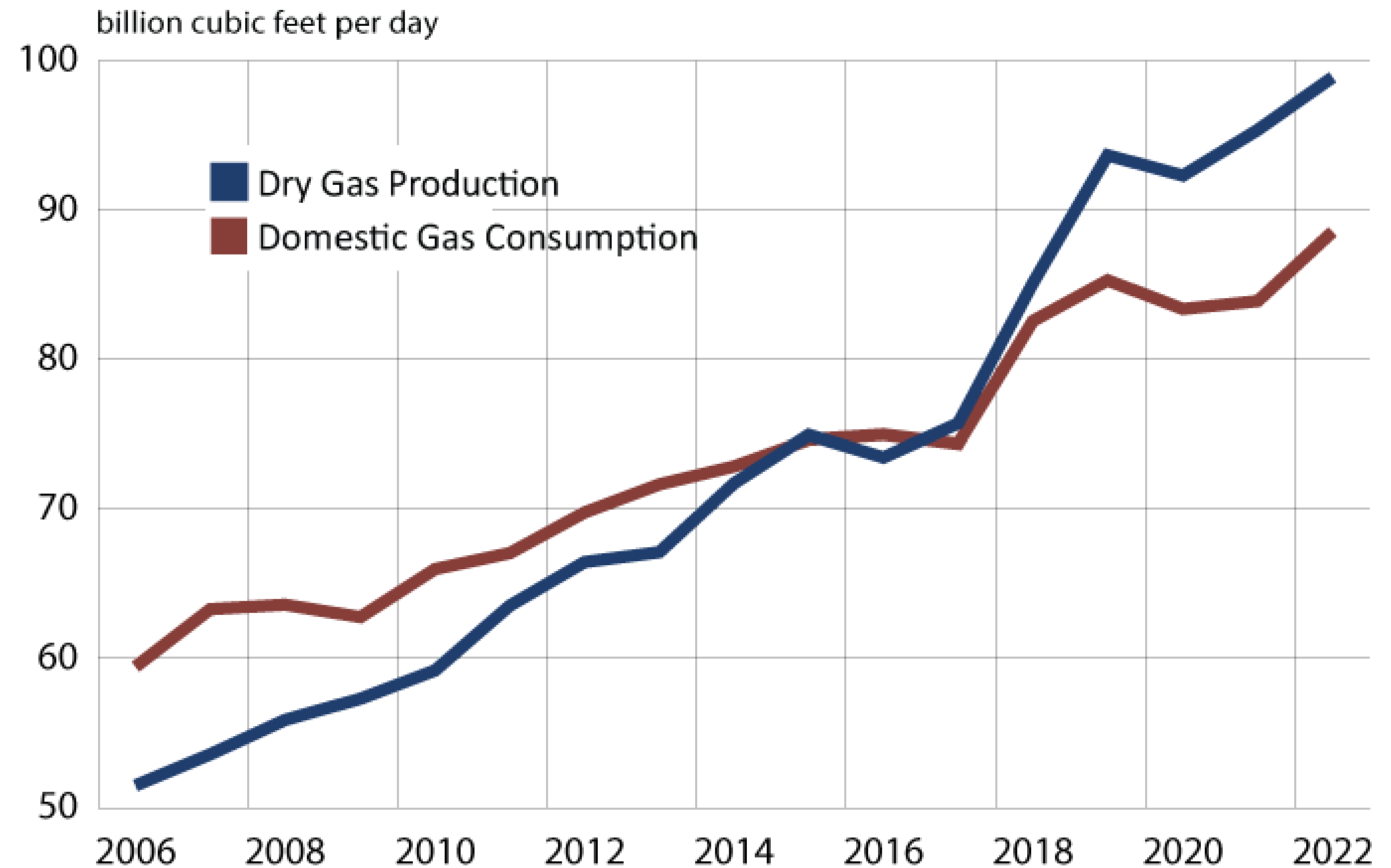
Source: EIA Monthly Energy Review (31 Mar. 2023)

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## Production Drivers

- Coal-to-Gas Switch
- LNG Exports

## Annual Natural Gas Production and Consumption



Source: EIA Short-Term Energy Outlook (07 March 2023)

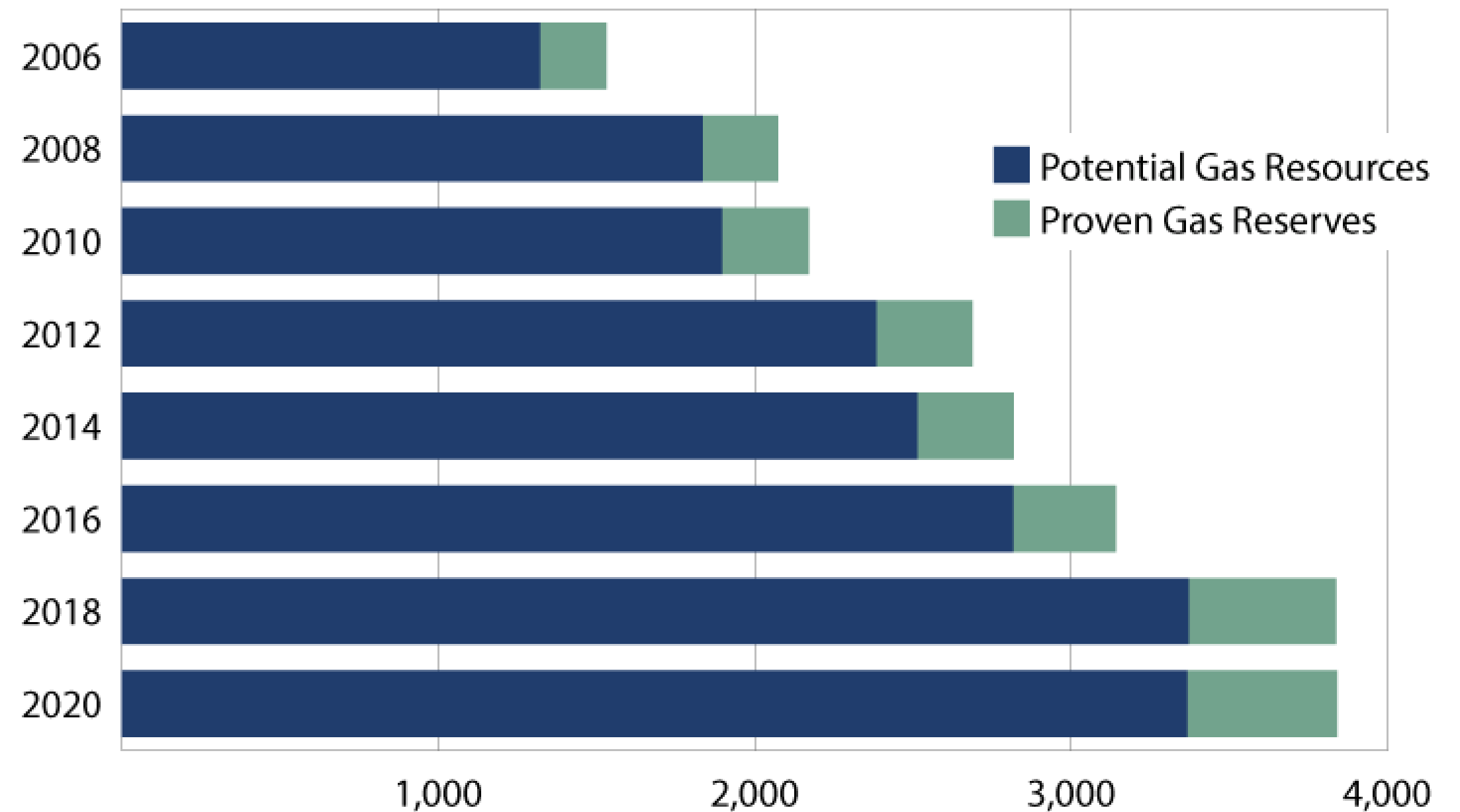
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# Future Gas Supply

- 80+ Yrs. Domestic
- Robust Exports

## U.S. Future Gas Supply (Resources + Reserves)

trillion cubic feet of natural gas



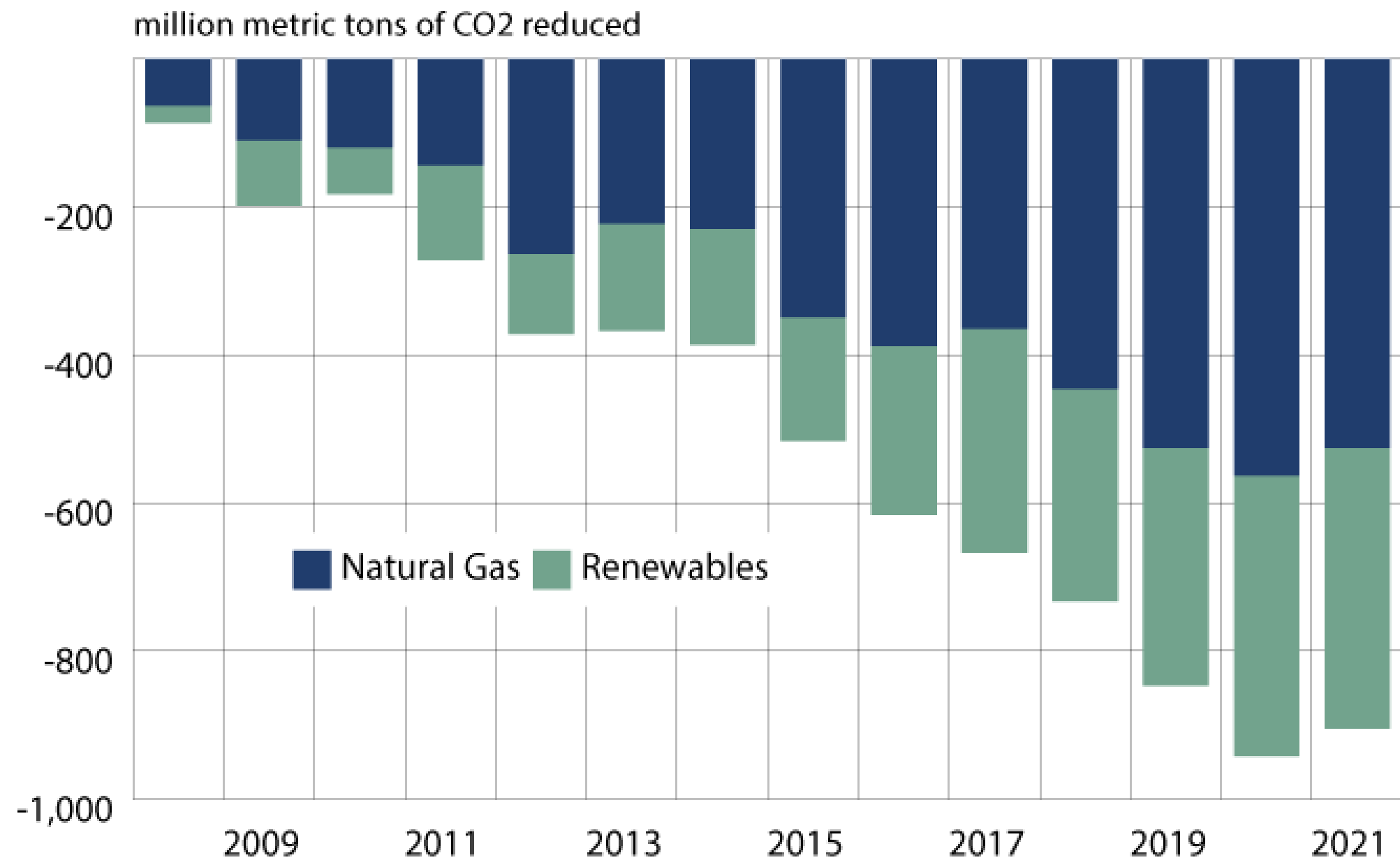
Sources: Potential Gas Committee (Resources); EIA (Reserves)

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# CO2 Reductions

- Gas  $\approx$  60%
- Renewables  $\approx$  40%

## U.S. Electric Sector CO2 Reductions



Source: U.S. Energy-Related Carbon Dioxide Emissions (EIA, Dec. 2022)

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**USLNG Exports**  
Past, Present, and  
Future

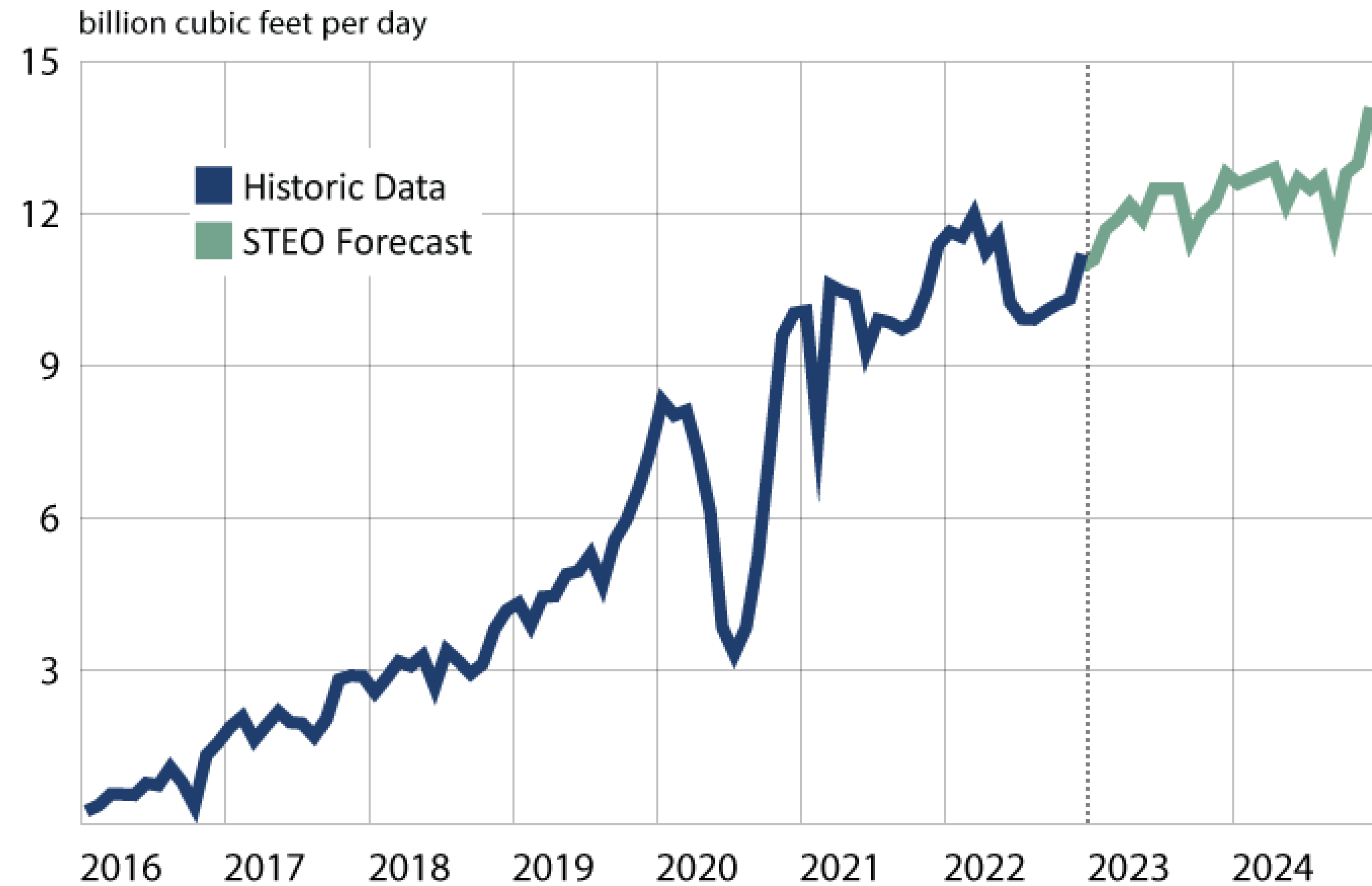




# LNG Export Growth

- Mostly Steady
- Pandemic Drop

## Monthly USLNG Export Levels



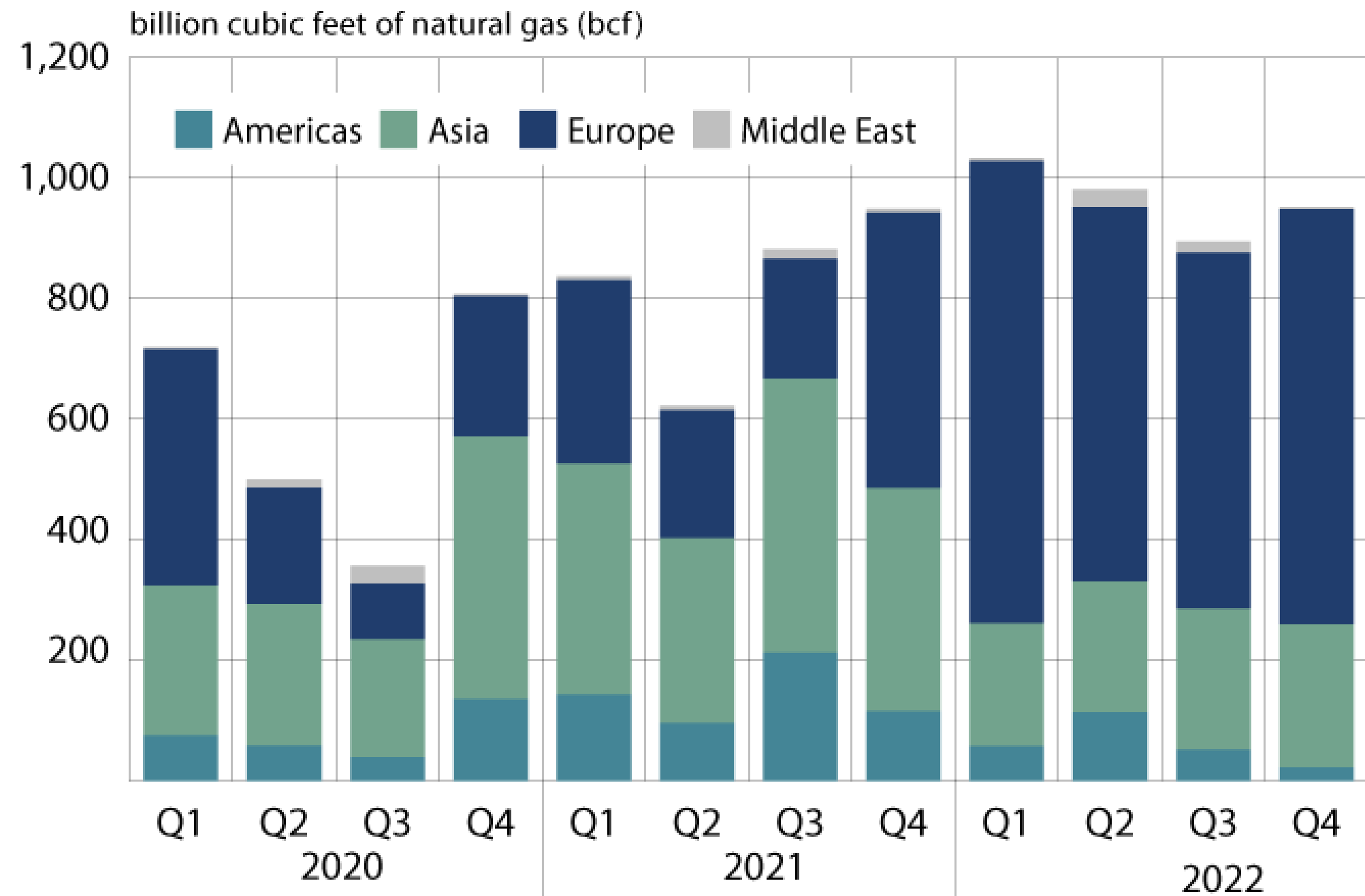
Source: EIA Short-Term Energy Outlook (07 March 2023)

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## Market Flexibility

- Asia in 2020-21
- Europe in 2021-22

## Regional Distribution of USLNG - Past 3 Years



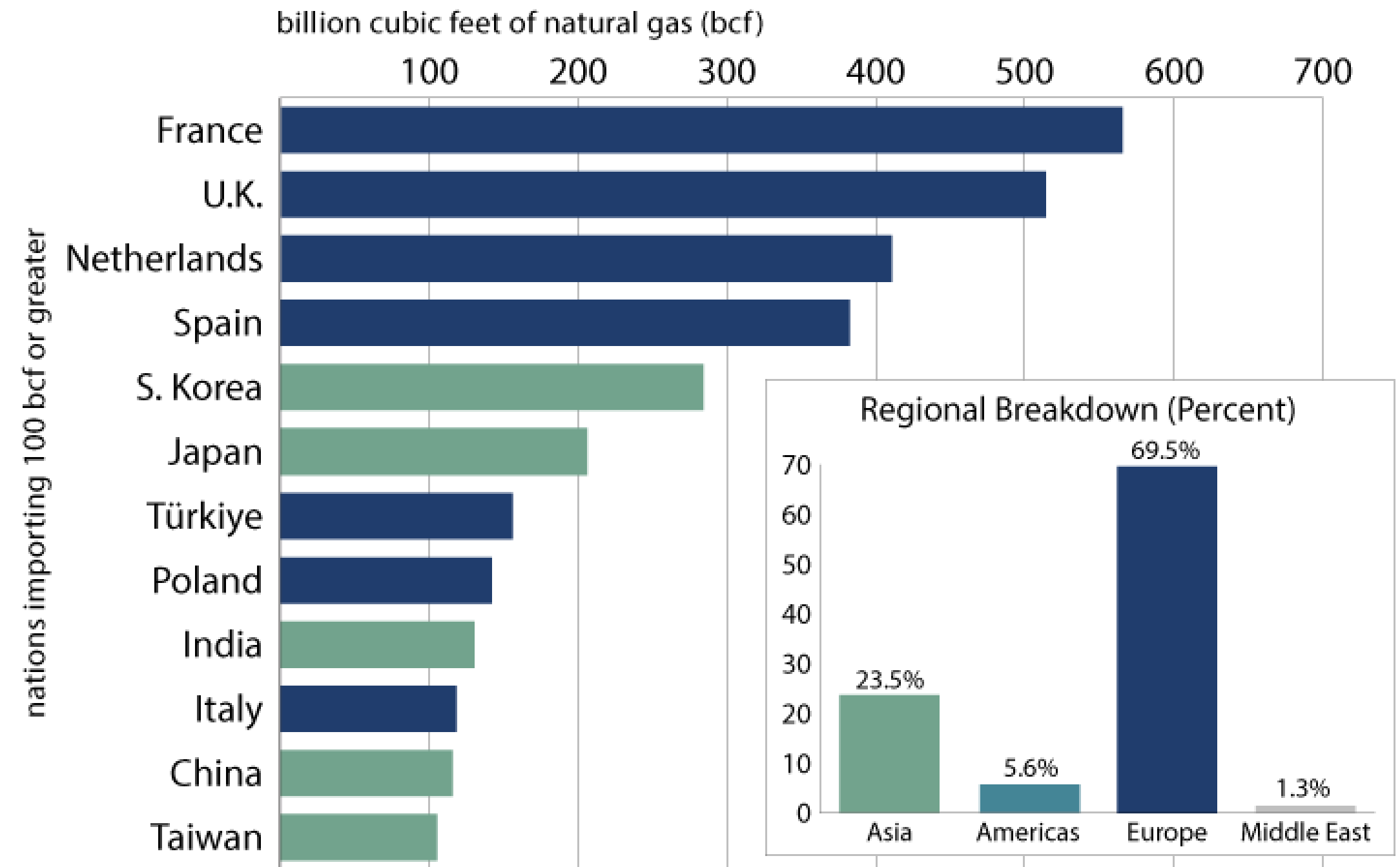
Source: DOE LNG Monthly (Data through 31 Dec. 2022)

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## Past 12 Months

- Europe + Asia = 93%
- Europe ≈ 70%

## Top USLNG Destinations - Past 12 Months



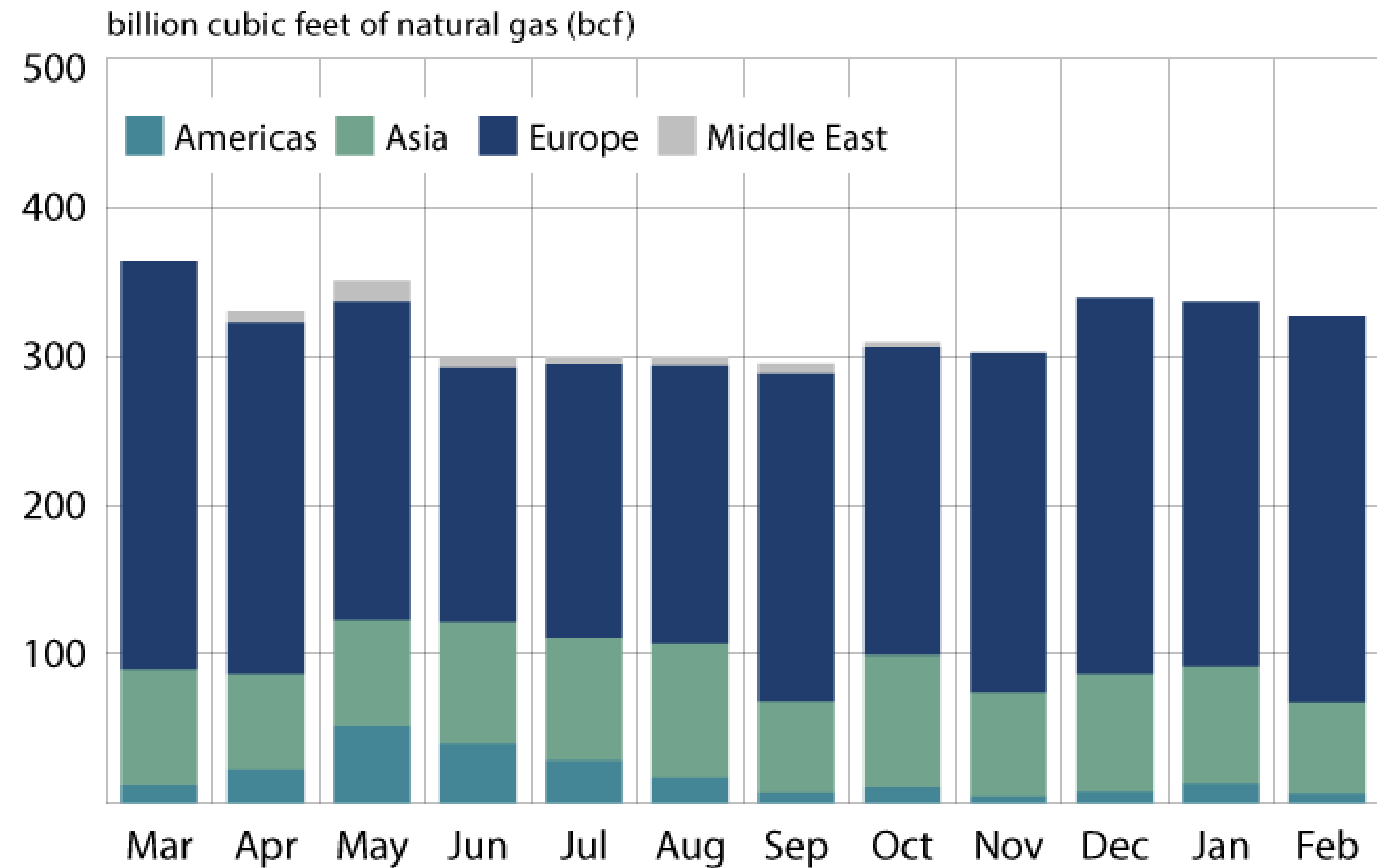
Source: DOE LNG Monthly (Data thru Feb. 2023)

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## Past 12 Months

- Peak in Mar. 2022
- Freeport Outage

## Regional Distribution of USLNG - Past 12 Months

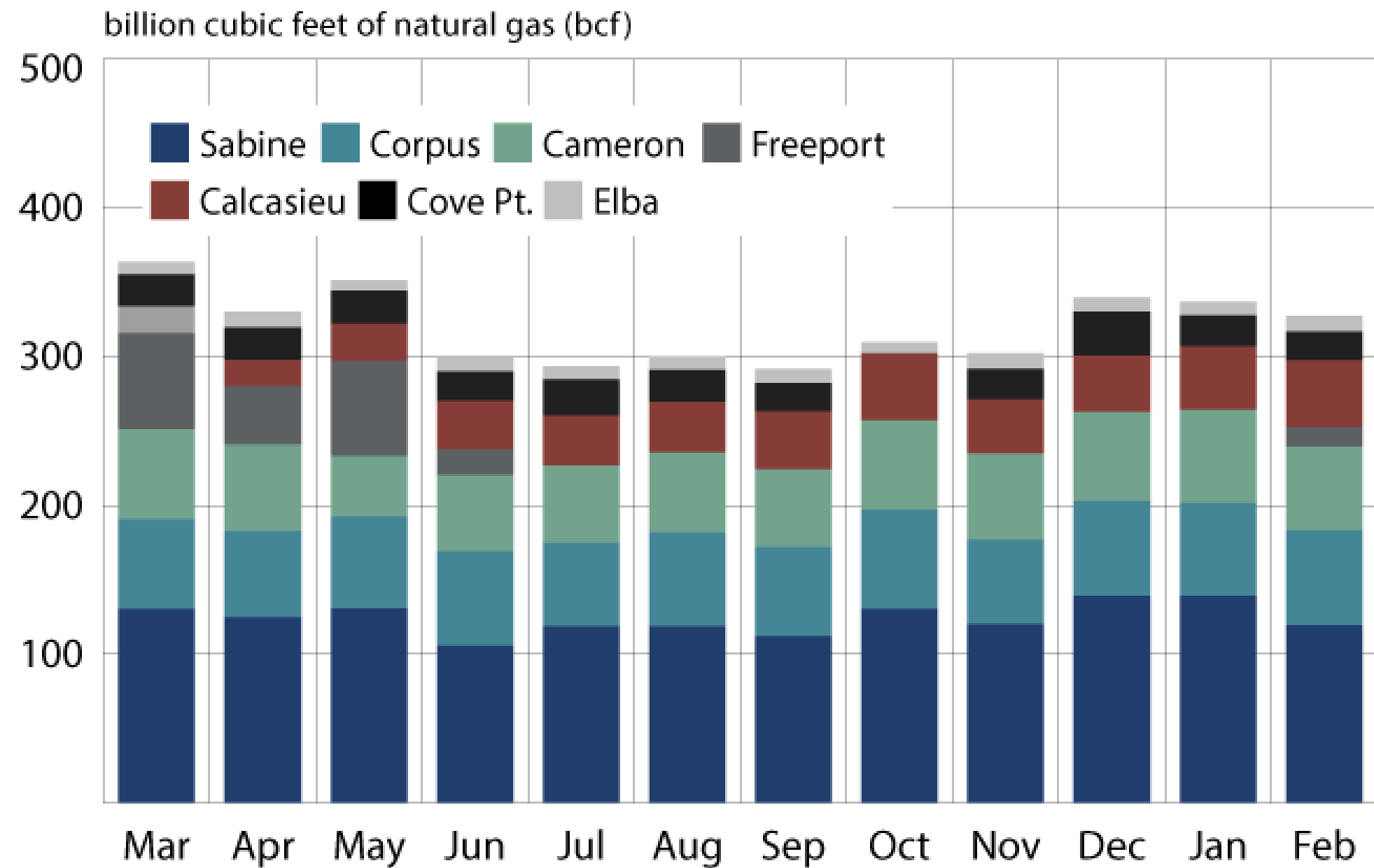


Source: DOE LNG Monthly (Data thru Feb. 2023)

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**Past 12 Months**  
 - Calcasieu Starts  
 - Freeport Outage

## USLNG Exports by Facility - Past 12 Months



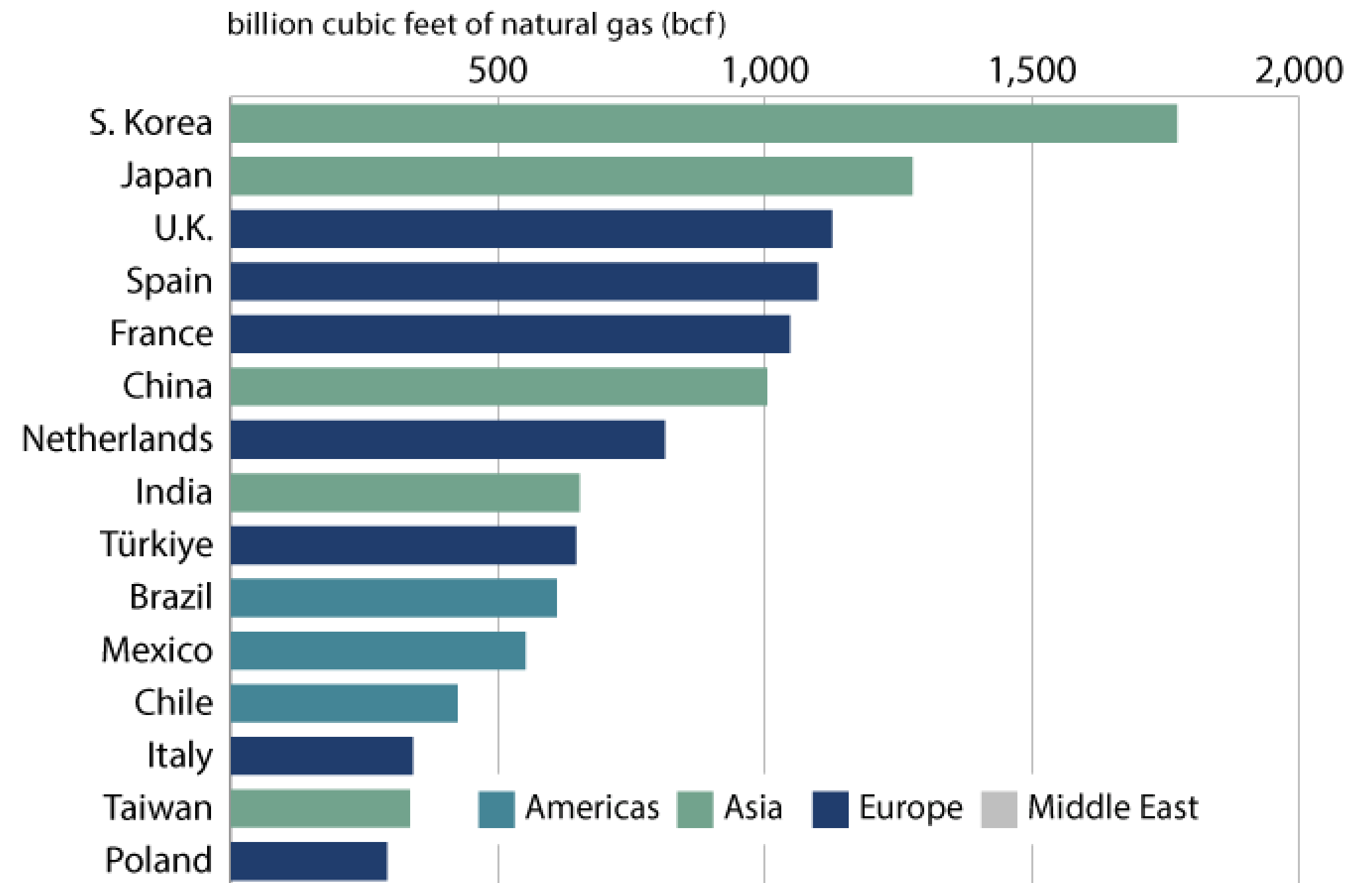
Source: DOE LNG Monthly (Data thru Feb. 2023)

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# Top Importers

- Korea, Japan
- Europe Up (21-22)
- China down (21-22)

## Top 15 Importers of USLNG - Since Feb. 2016



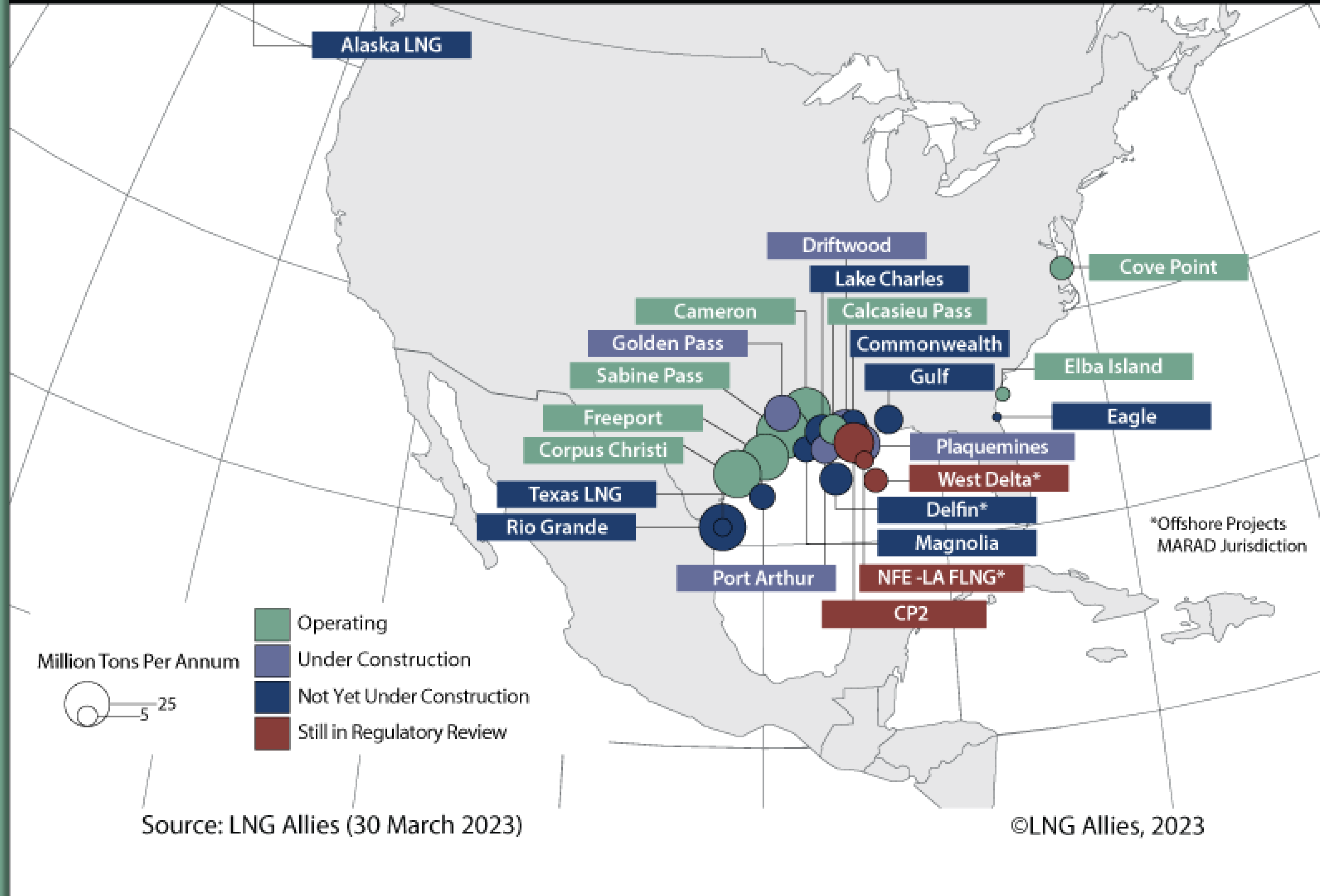
Source: DOE LNG Monthly (Data thru Feb. 2023)

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**USLNG Industry**  
No. 1 Globally with  
More to Come



## Major US LNG Export Projects - Existing & Proposed



## Top Producer and Still Growing!

- Seven operating
- Four building
- Nine permitted
- Three pending



## Peak Capacity

- 14 bcf/d now

- 20+ bcf/d by 2026

## Status & Capacity of Major USLNG Export Projects

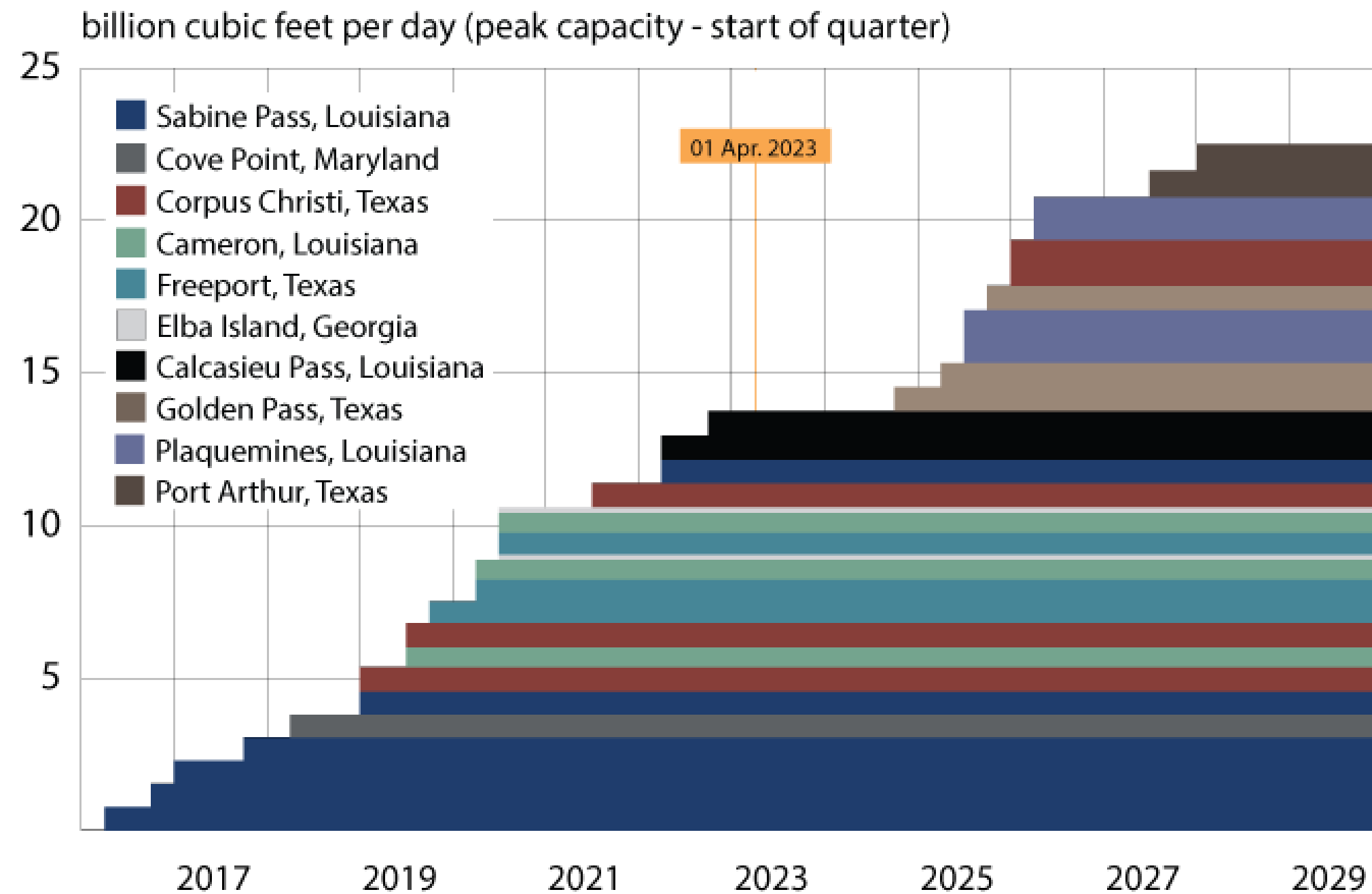
| Project Stage               | Projects  | mtpa <sup>1</sup> | bcm/yr <sup>1</sup> | bcf/day <sup>1</sup> |
|-----------------------------|-----------|-------------------|---------------------|----------------------|
| Operating                   | 7         | 105               | 144                 | 13.8                 |
| Under Construction/Post-FID | 4         | 74                | 102                 | 9.7                  |
| Permitted, Pre-Construction | 9         | 137               | 190                 | 18.0                 |
| Pending at FERC or MARAD    | 3         | 42                | 56                  | 5.6                  |
| <b>Total</b>                | <b>23</b> | <b>358</b>        | <b>494</b>          | <b>47.1</b>          |

Notes: (1) Peak capacity for operating and under construction projects. (2) Projects = individual projects. (3) Additional trains for existing projects not included in project count, but in other totals. (4) Only projects with a capacity of 1.0 mtpa or greater shown here. (5) Projects under construction include Golden Pass, Driftwood, Plaquemines I & II, Corpus Christi Stage 3, Port Arthur. (5) FERC pre-filing not included.

Source: EIA & LNG Allies (21 March 2023)

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## USLNG Liquefaction Capacity Growth



Source: EIA and LNG Allies (March 2023) | Note: FID Projects Only

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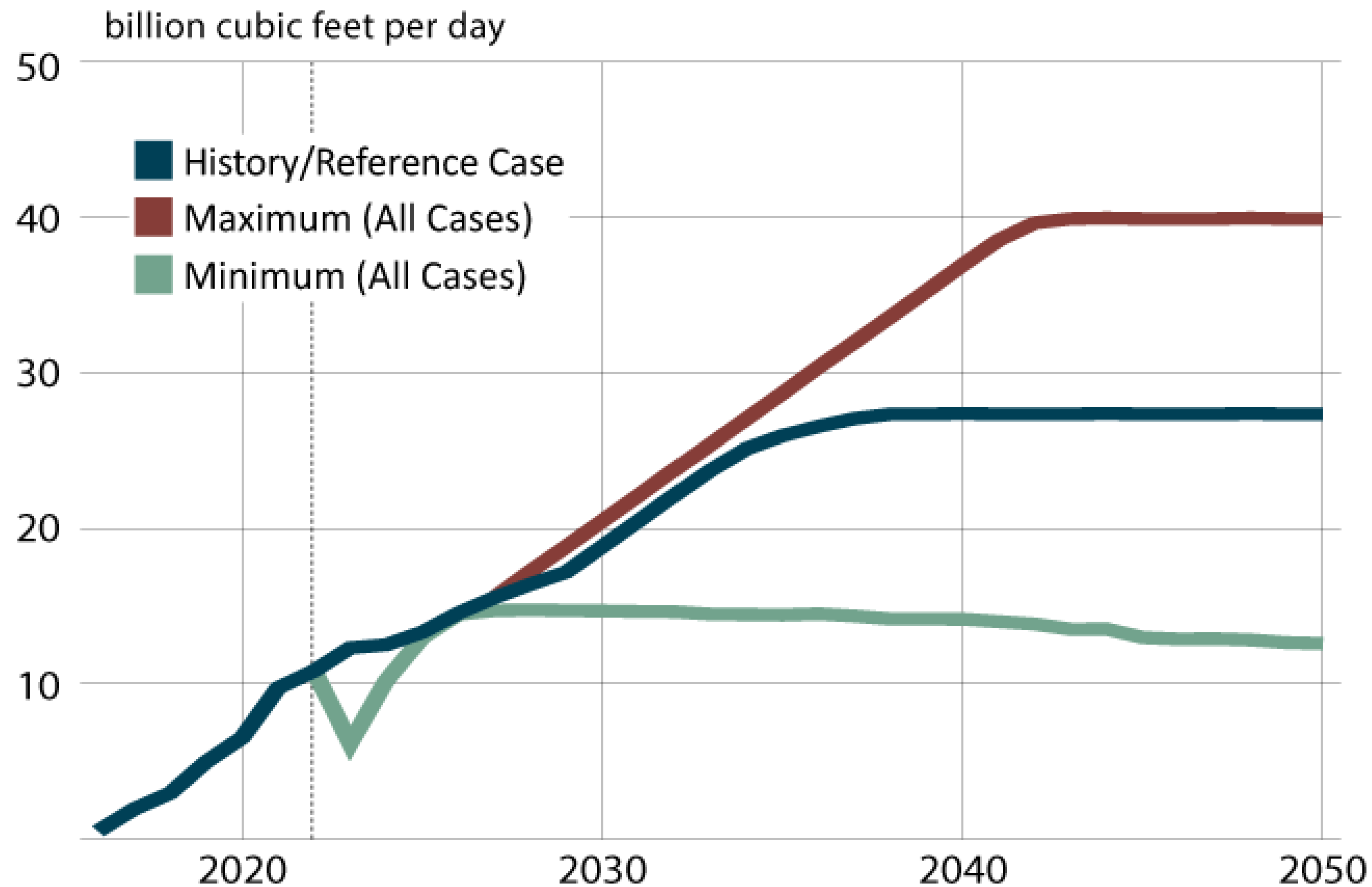
- ## USLNG Export Capacity Growth
- Steady until 2023
  - Two-year "hiatus"
  - More in 2024-27
  - And then...?

## What Lies Ahead?

- USLNG Export Levels Could Reach 40 bcf/d



## USLNG Exports Under Different AEO 2023 Cases



Source: Annual Energy Outlook 2023 (EIA)

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## Long-Term USLNG Outlook (AEO-23)

- EIA Reference Case

20 bcf/d by 2031

- EIA Upper Bound

40 bcf/d by 2043

- Another Scenario?

20 bcf/d by 2027-28?

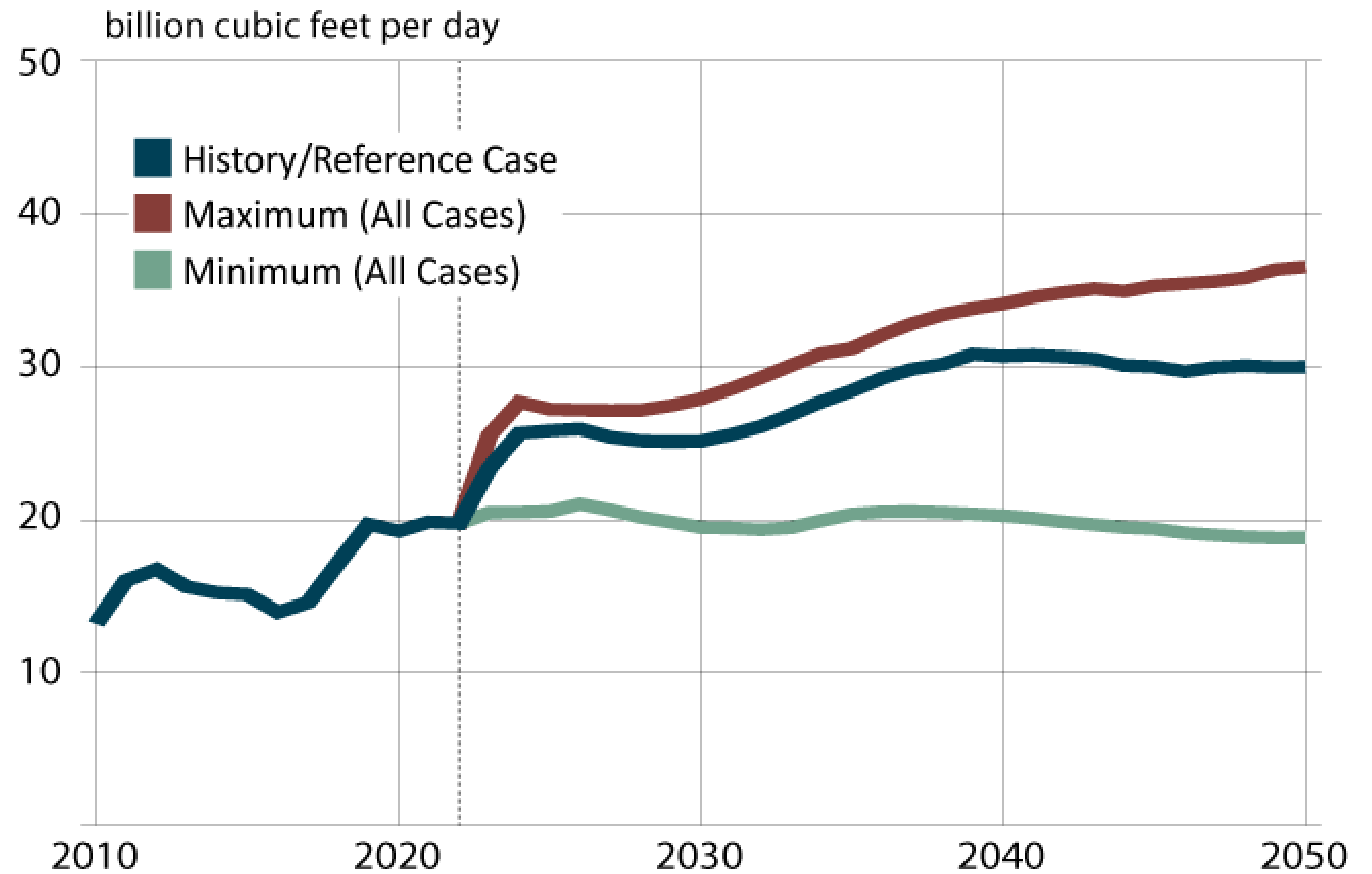
40 bcf/d by 2035?

# Gulf Coast Gas

- 20-30 bcf/d

- Export Driven

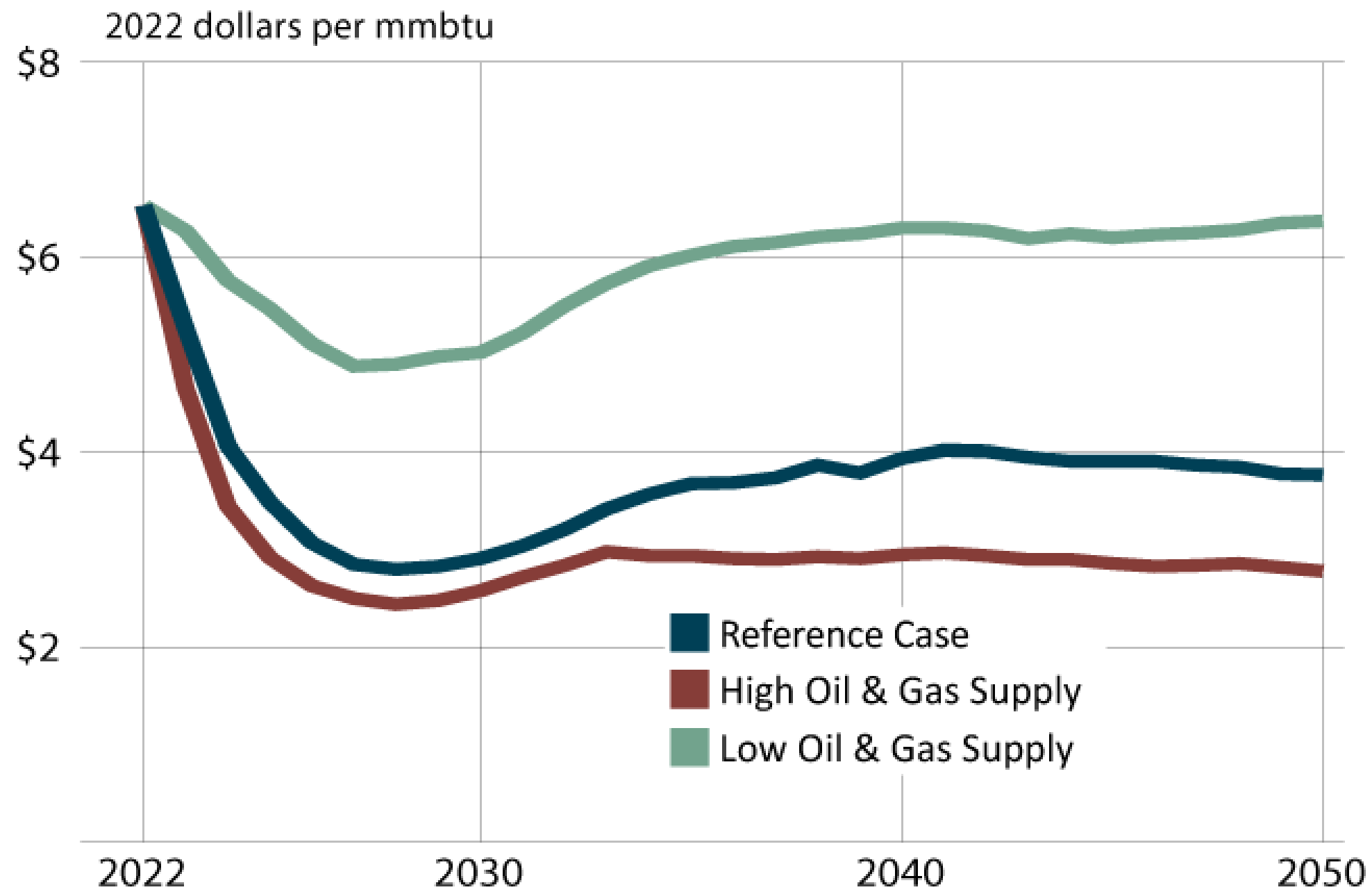
## U.S. Gulf Coast Natural Gas Production



Source: Annual Energy Outlook 2023 (EIA)

©LNG Allies, 2023

## Henry Hub Price Projections



Source: Annual Energy Outlook 2023 (EIA)

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## Henry Hub Prices

- EIA Reference Case  
\$4/mmbtu or less
- EIA Upper Bound  
\$5-6/mmbtu
- Could be  $\approx$  \$3/mmbtu

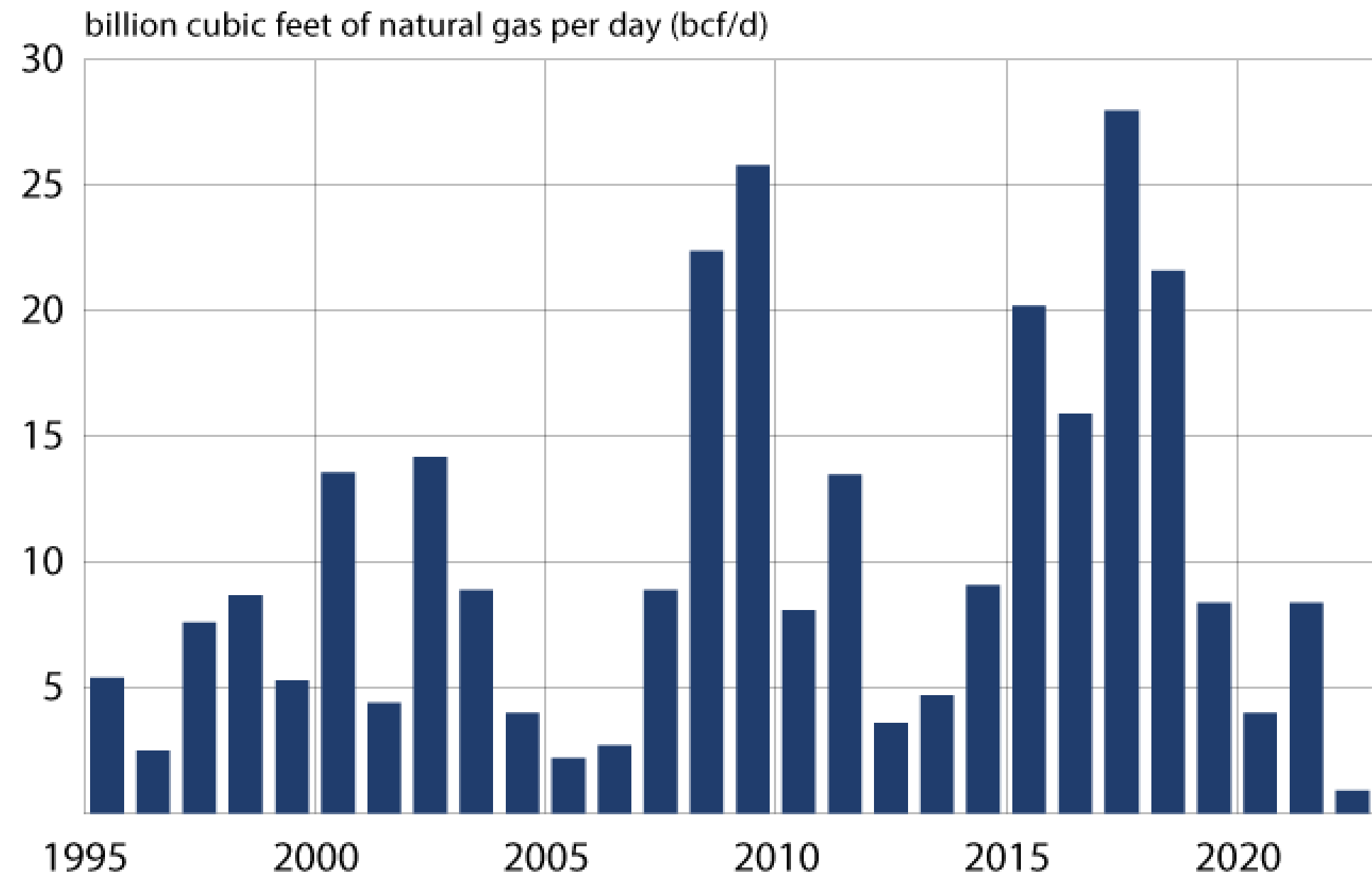
**Why Permitting Reform?**  
Future USLNG growth  
requires more interstate  
pipeline capacity



# Pipeline Additions

- Four Dismal Years
- 2022 Lowest in Three Decades!

## U.S. Interstate Pipeline Additions per Year



Source: EIA State-to-State Capacity Tracker (March 2023)

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