

U.S. LNG Exports – Catch a Wave!

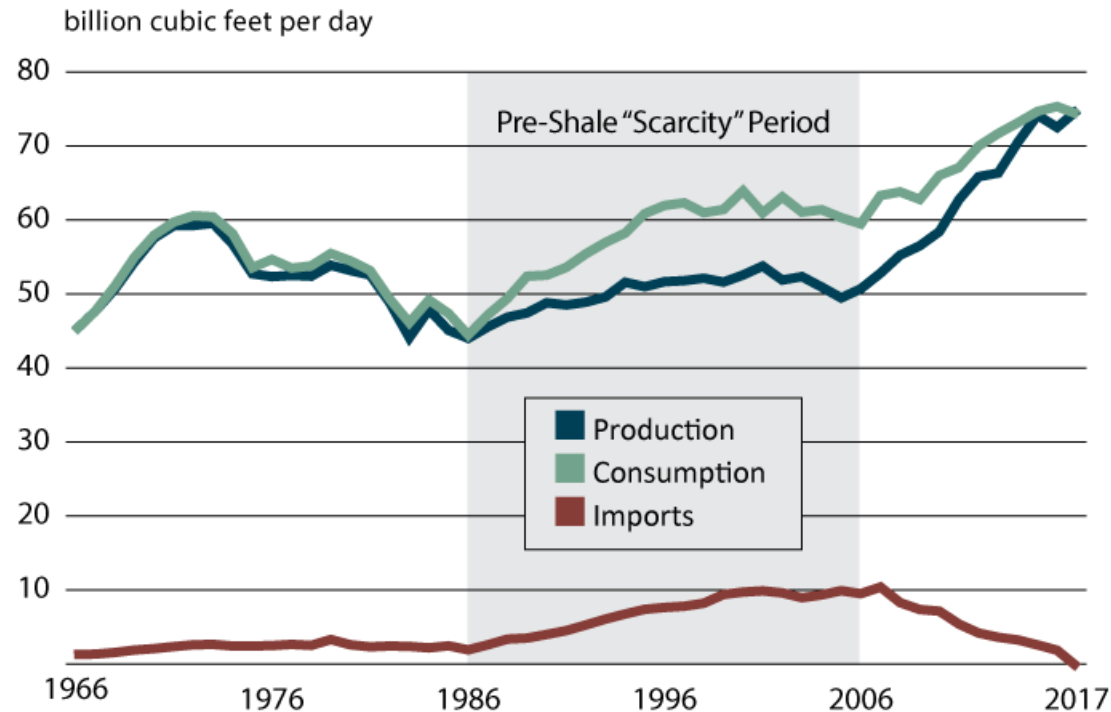
USEA 12th Annual
Energy Supply Forum
Oct. 2, 2019

LNG  Allies™
THE US LNG ASSOCIATION



Shale Changes Everything

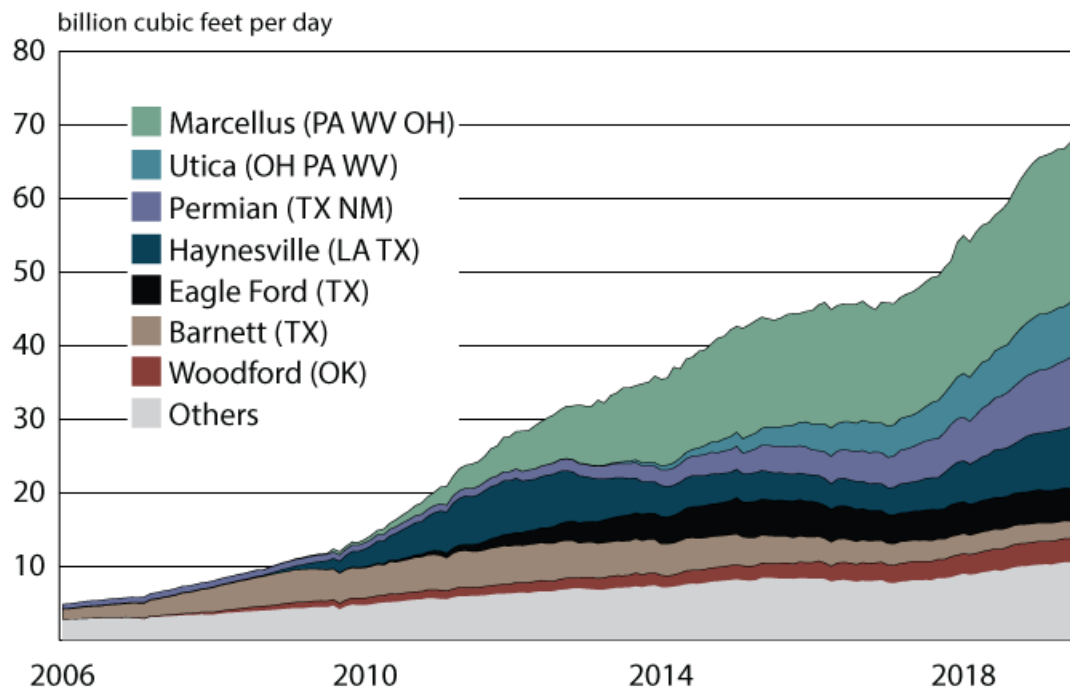
U.S. Natural Gas Production, Consumption, Imports



Source: EIA Monthly Energy Review (Jan. 2019)

©LNG Allies, 2019

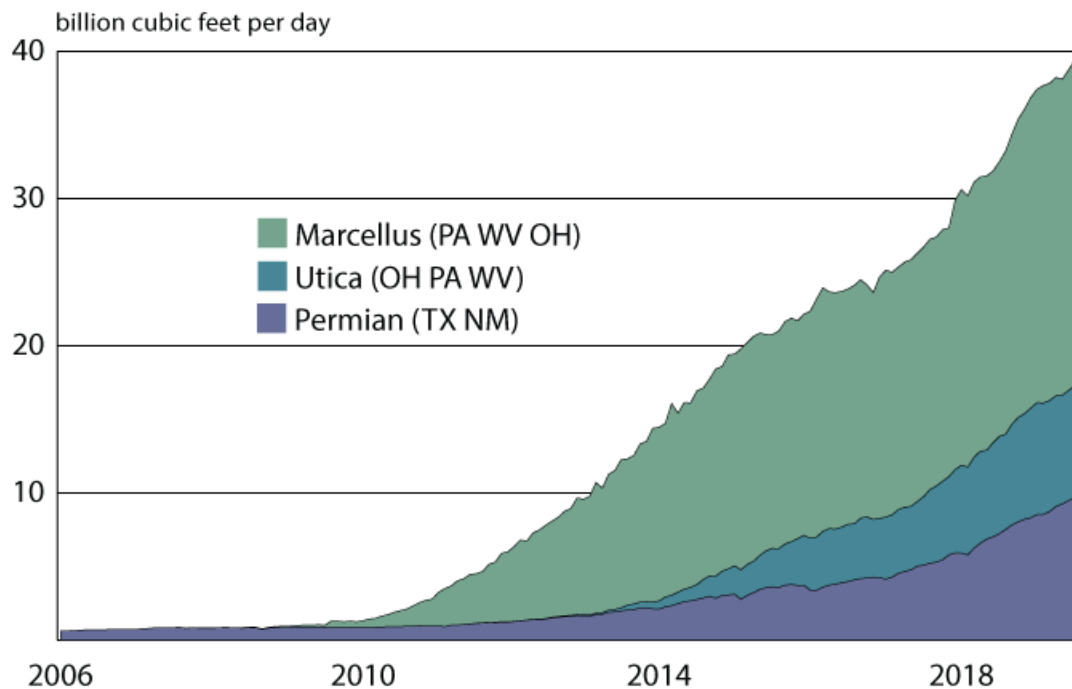
U.S. Dry Shale Gas Production by Basin



Source: EIA Natural Gas Weekly Update (07 Aug. 2019)

©LNG Allies, 2019

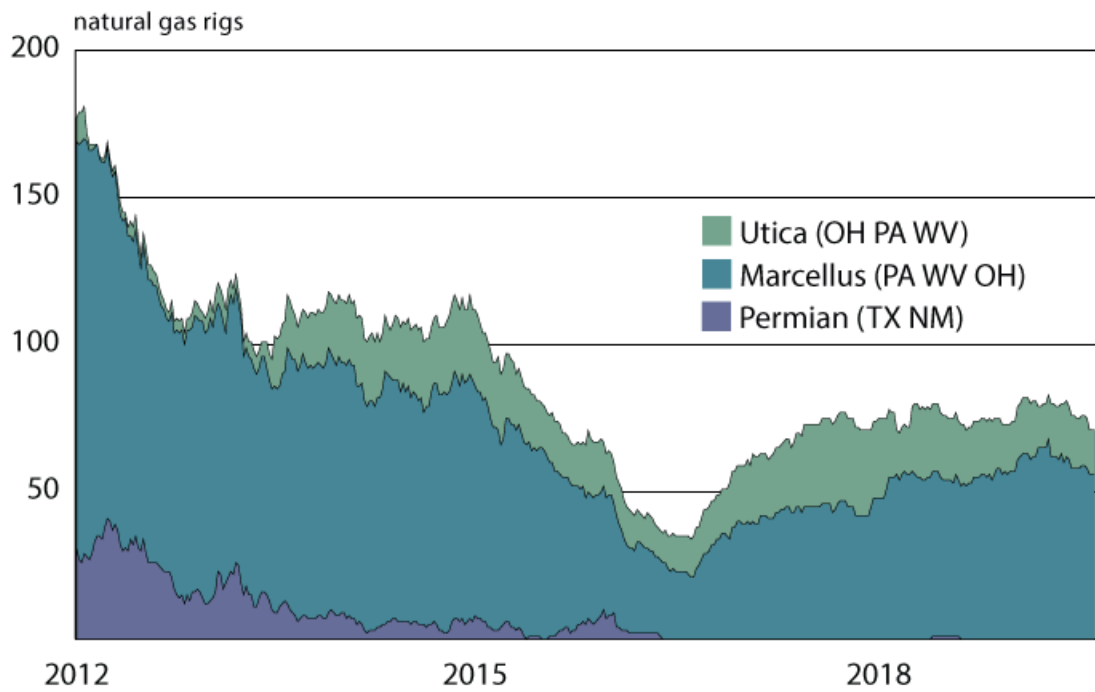
Permian, Utica, Marcellus Shale Gas Production



Source: EIA Natural Gas Weekly Update (07 Aug. 2019)

©LNG Allies, 2019

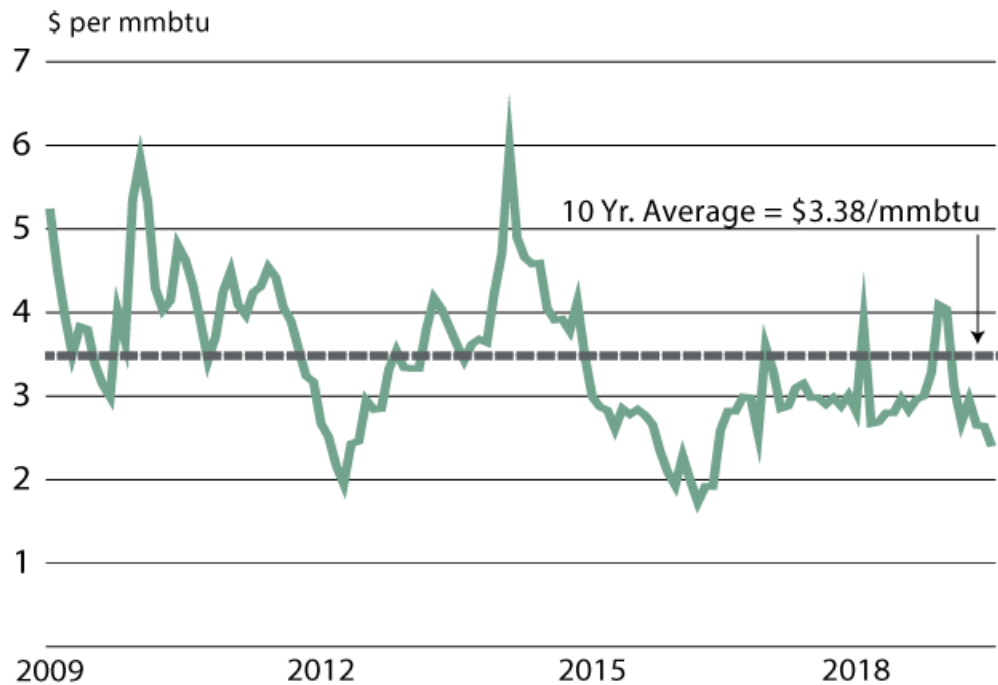
Permian, Utica, Marcellus Weekly Gas Rig Count



Source: Baker Hughes GE (09 Aug. 2019)

©LNG Allies, 2019

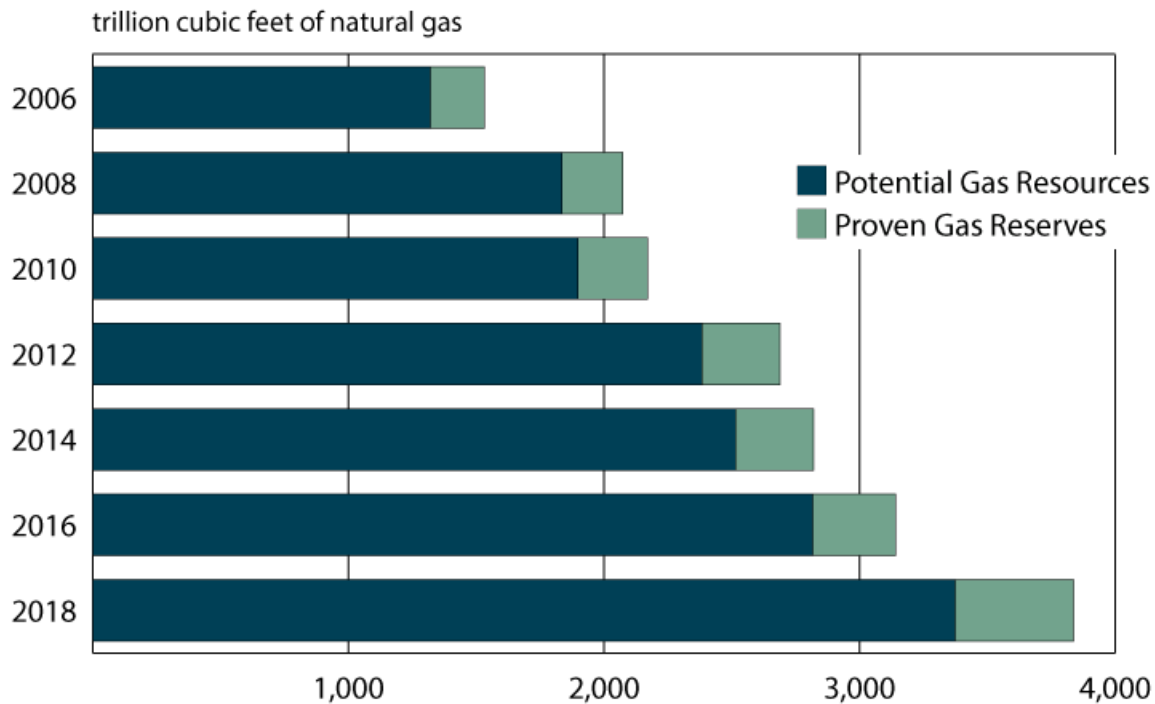
Monthly Henry Hub Spot Prices - Past 10 Years



Source: EIA & Thomson Reuters (Data to June 2019)

©LNG Allies, 2019

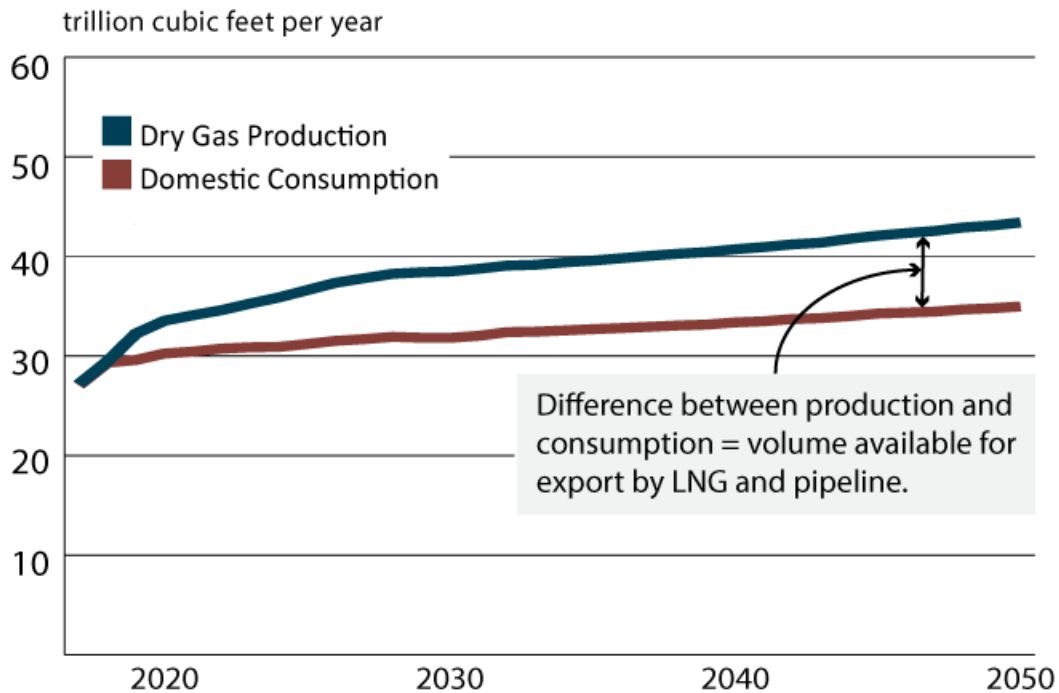
U.S. Future Gas Supply (Resources + Reserves)*



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

©LNG Allies, 2019

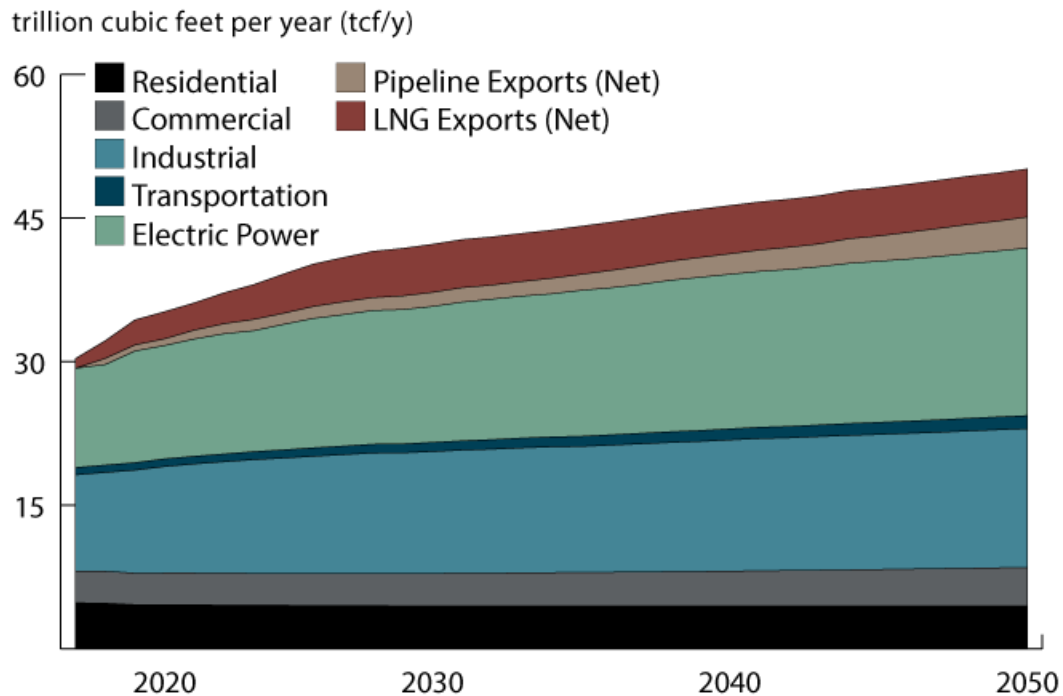
U.S. Natural Gas Production and Consumption



Source: EIA Annual Energy Outlook - 2019 (Reference Case)

©LNG Allies, 2019

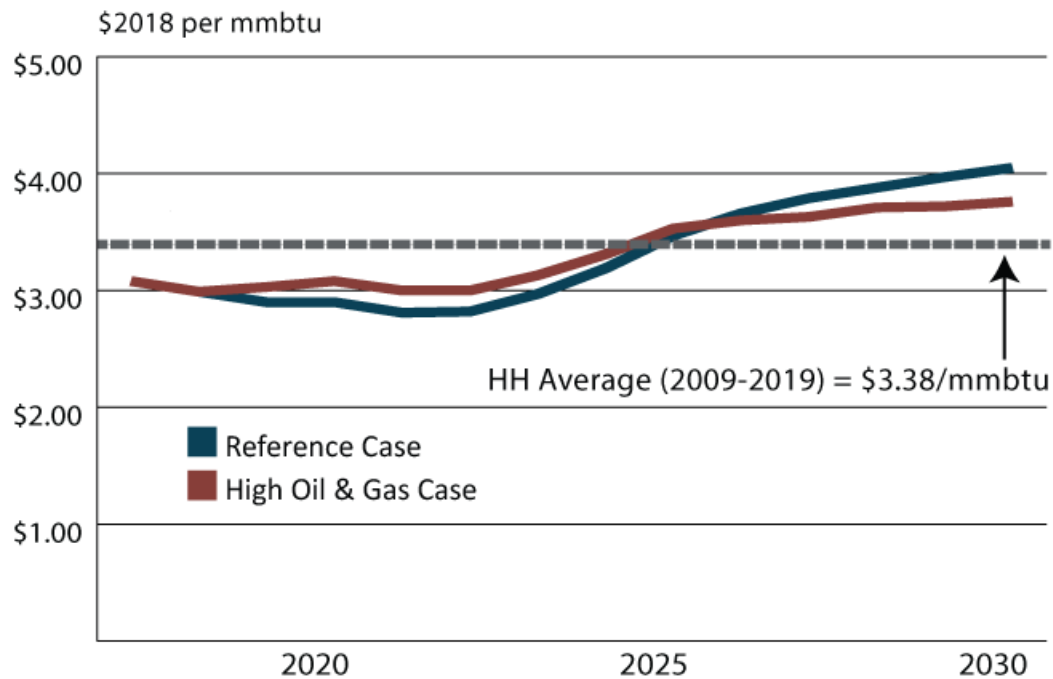
U.S. Natural Gas Consumption by Sector



Source: EIA Annual Energy Outlook 2019 (Reference Case)

©LNG Allies, 2019

U.S. Natural Gas Price Forecasts (Henry Hub)



Source: EIA Annual Energy Outlook - 2019

©LNG Allies, 2019

U.S. LNG Export Industry

U.S. LNG Export Industry

- Eight major brownfield (import) terminals adding/planning liquefaction capabilities
- Another 20+ greenfield projects proposed
- Midstream players and special purpose entities; IOCs mostly offtakers not project sponsors (XOM, Total, minority owners)

Permitting Status of Major U.S. LNG Export Projects

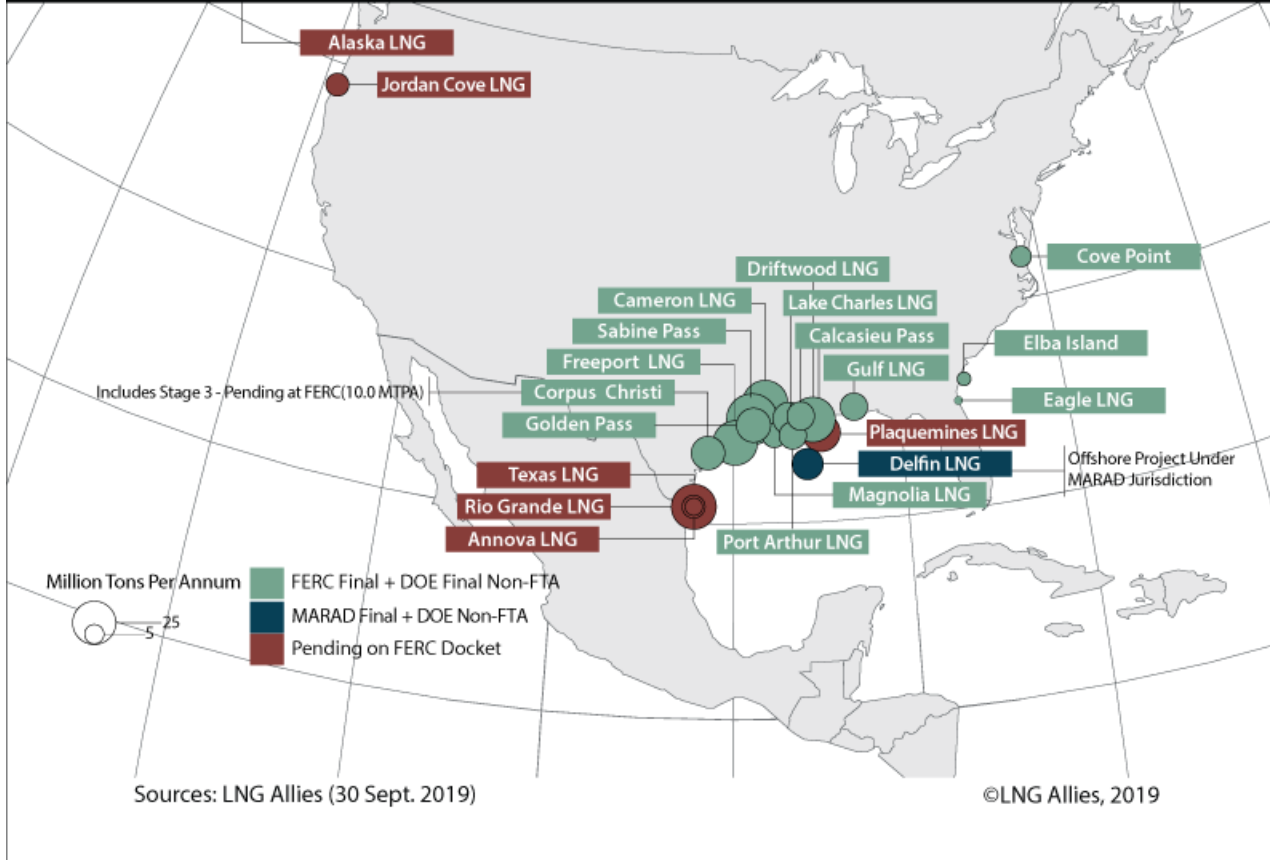
Project Stage	Projects	mtpa	bcm/yr	bcf/day
Permitted & Under Construction	8	107.9	148.8	14.2
Permitted Pre-FID	6	101.5	140.0	13.4
Formal FERC Review	8	105.0	144.8	13.8
FERC Pre-Filing	4	61.0	83.6	8.0
Total	26	375.4	517.3	49.4

Notes: (1) Projects = individual projects. (2) Additional trains for existing projects not included in the project count, but in mtpa, bcm/year, and bcf/day totals (Sabine Pass #6, Cameron #4 #5, Freeport #4, Port Arthur #3 #4). (3) This table only includes projects with a liquefaction capacity of 1.0 mtpa or greater.

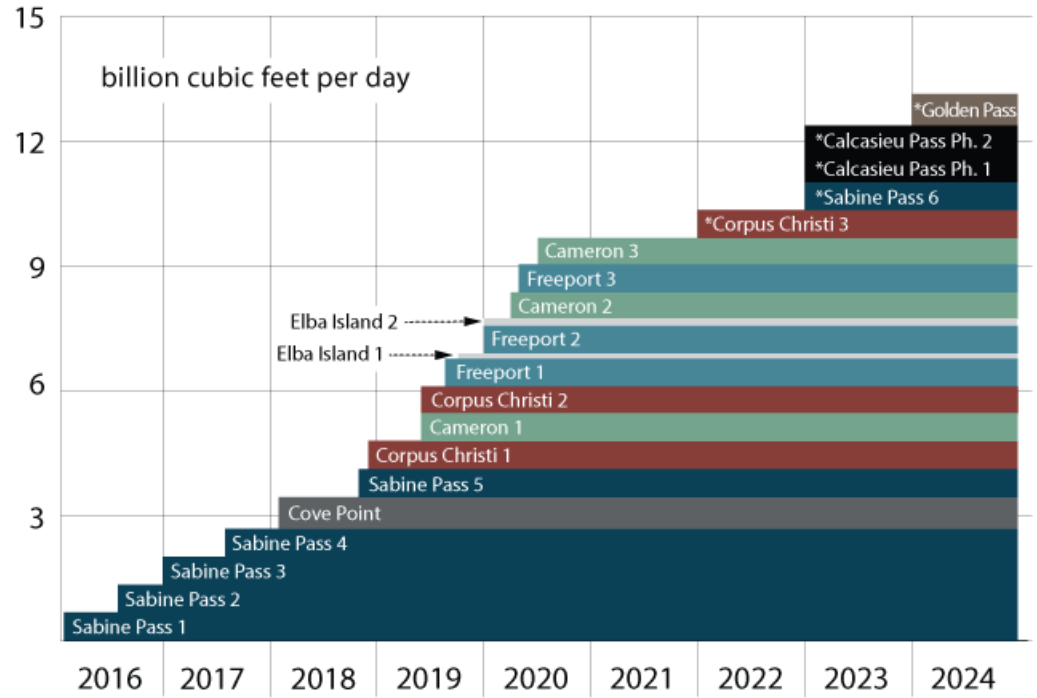
Source: Federal Energy Regulatory Commission & LNG Allies (21 Aug. 2019)

©LNG Allies, 2019

Major U.S. LNG Export Projects - Existing & Proposed



U.S. LNG Liquefaction Capacity Growth

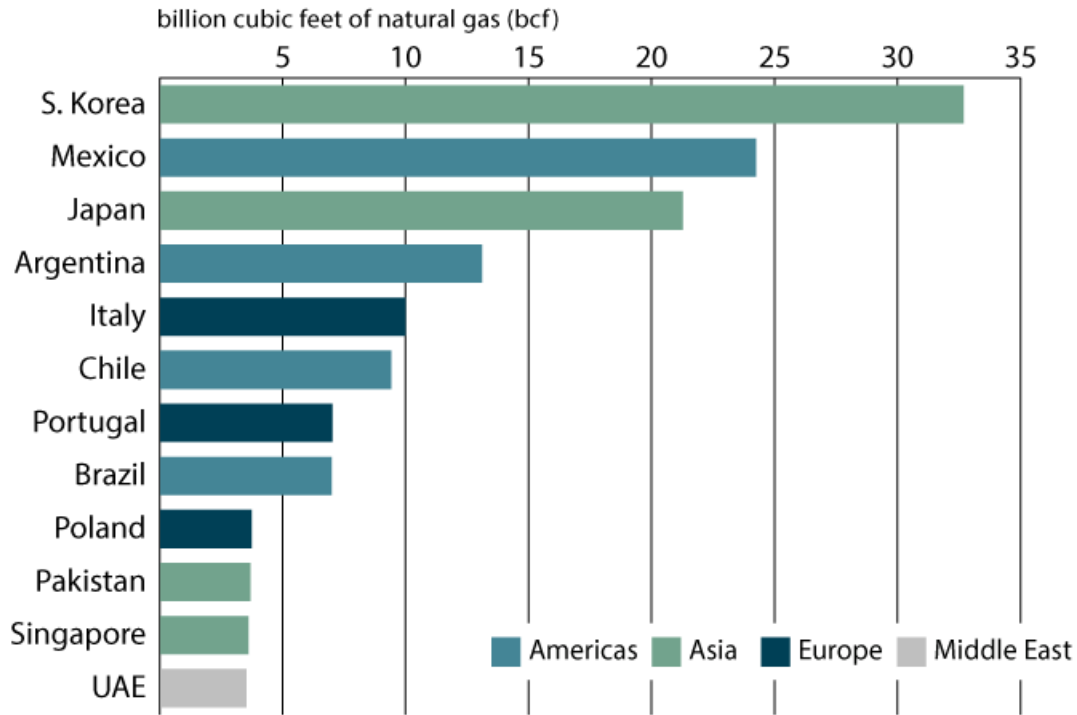


Source: EIA and LNG Allies (21 Aug 2019) *Rough Estimate Only

©LNG Allies, 2019

U.S. LNG Exports

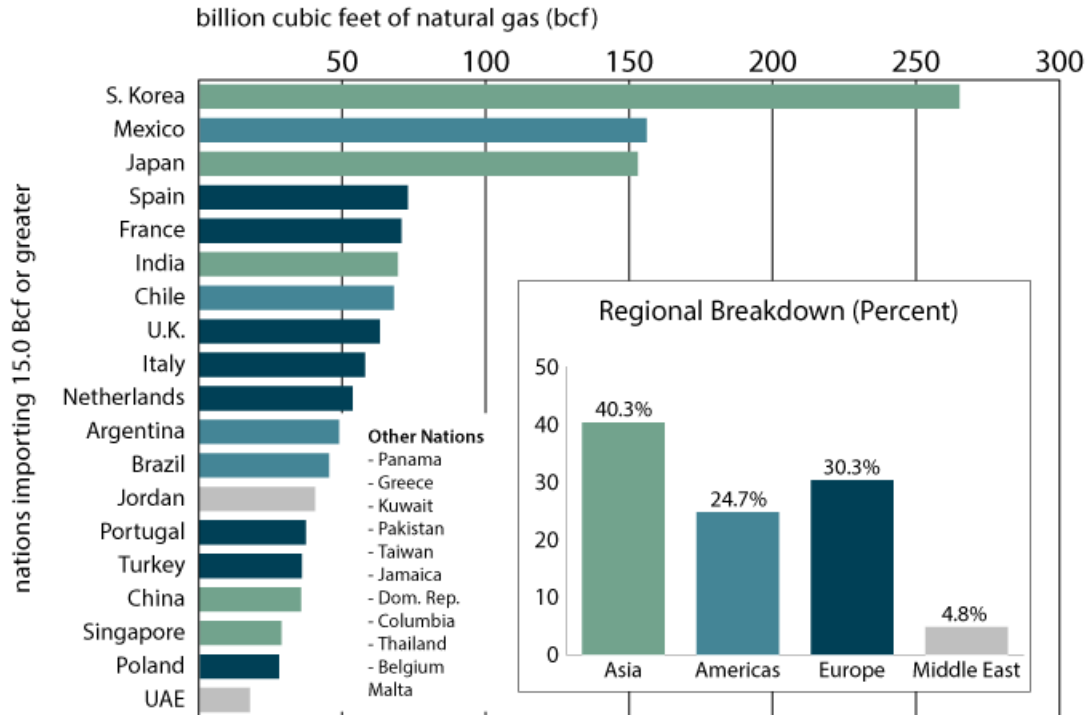
Top 12 U.S. LNG Export Destinations - July 2019



Source: DOE LNG Monthly (Data through July 2019)

©LNG Allies, 2019

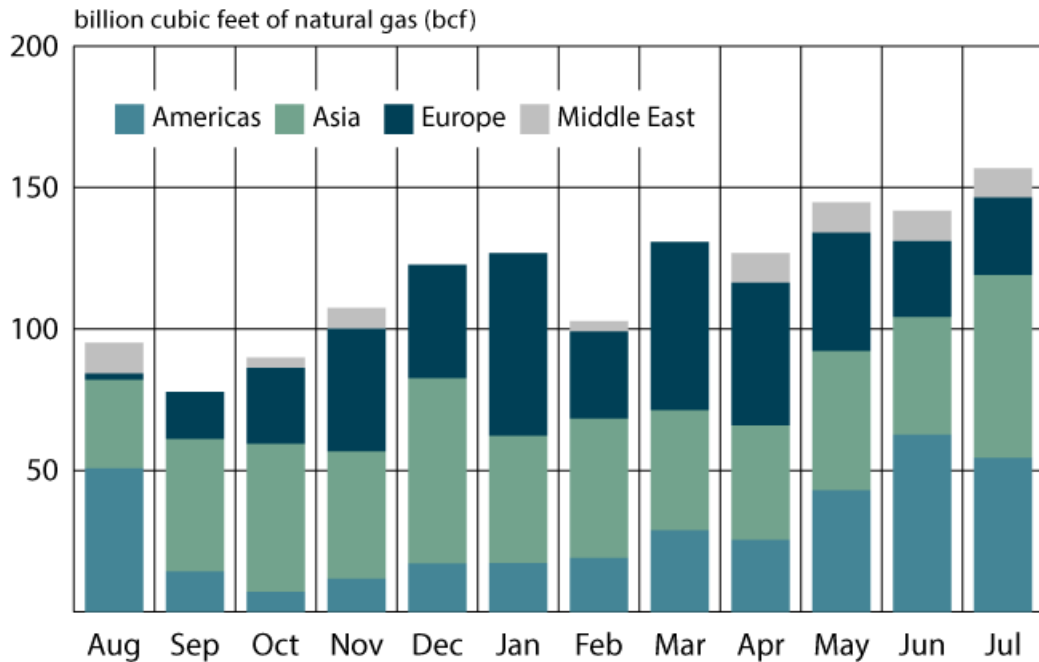
U.S. LNG Destinations - Past 12 Months



Source: DOE LNG Monthly (Data through July 2019)

©LNG Allies, 2019

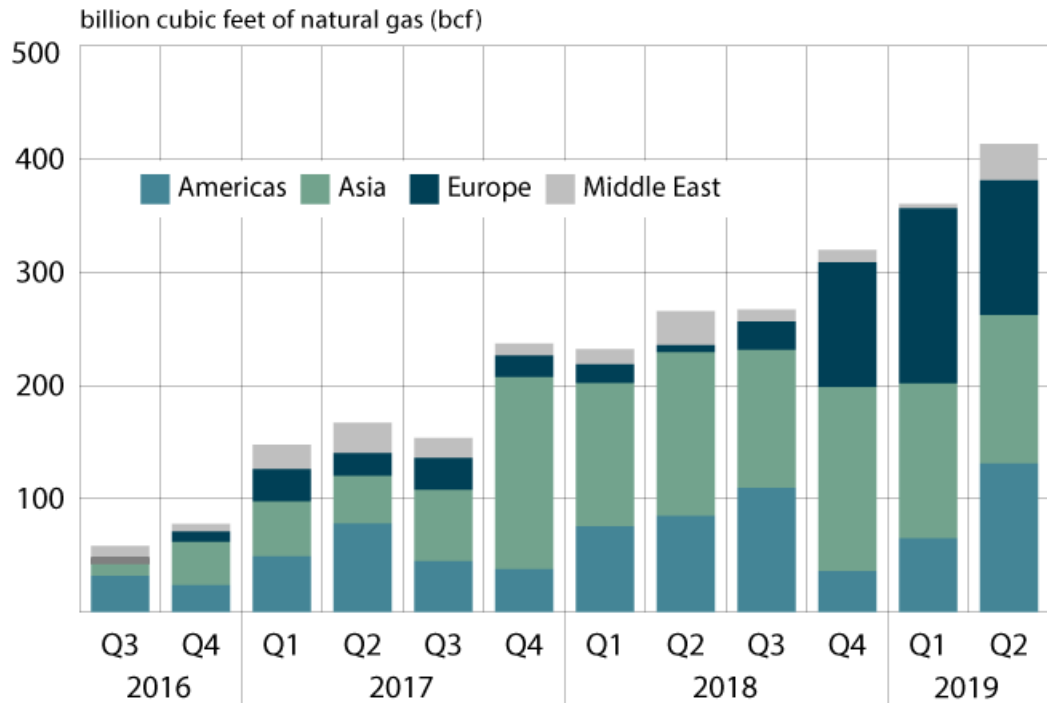
Regional Distribution of U.S. LNG - Past 12 Months



Source: DOE LNG Monthly (Data through July 2019)

©LNG Allies, 2019

Regional Distribution of U.S. LNG - Past 3 Years



Source: DOE LNG Monthly (Data through 30 June 2019)

©LNG Allies, 2019

www.Ingallies.com

@Ingallies