The Eagle Has Landed: Impact of US Exports on Global LNG Markets

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US LNG Upends Global Gas Trade; Now What?

- Emergence of the “US model” creates challenges and opportunities for buyers around the world
  - With US LNG on the market, buyers around the world are clamoring for contract, price and destination flexibility in new/expiring contracts
  - US LNG enters an overcrowded market. Delays and disruptions are large enough to support spot gas prices around the world temporarily
  - US capacity holders have made significant investments upstream, making shut ins more costly
- Portfolio deals proliferate around the world as security of supplier becomes less important
  - Demand outlook under fundamental pressure for established buyers of US capacity
- Converging global gas prices don’t preclude large volumes of US LNG in Asia on a seasonal basis, underscoring the need for a liquid JKM benchmark
US is just getting started on this generation of capacity additions; ultimately US will account for 20% of global LNG

Source: S&P Global Platts Analytics
US LNG upends global gas trade, paving the way for myriad new players; supply delays push out FID process by 1-2 years

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LNG EXPORT CAPACITY BUILDOUT (BCF/D)

Facility | Train | Est. Start Date
--------|------|------------------
Sabine Pass | 1 | 2/1/2016
Sabine Pass | 2 | 8/1/2016
Sabine Pass | 3 | 4/1/2017
Sabine Pass | 4 | 9/1/2017
Sabine Pass | 5 | 4/1/2019
Freeport | 1 | 9/1/2019
Freeport | 2 | 1/1/2020
Freeport | 3 | 5/1/2020
Cameron LNG | 1 | 9/1/2019
Cameron LNG | 2 | 3/1/2020
Cameron LNG | 3 | 9/1/2020
Corpus Christi | 1 | 3/1/2019
Corpus Christi | 2 | 9/1/2019
Corpus Christi | 3 | 12/1/2021
Elba Island | 1-6 | 12/1/2018
Elba Island | 7-10 | 7/1/2019

*Includes commissioning gas

Source: S&P Global Platts Analytics
Sabine gas gets around yet the 50% of US LNG cargoes headed to Asia this year was driven by higher netbacks and Asian contract “obligations”

161 US LNG cargoes shipped to 24 countries (Oct’17 to July’18)

23% to Americas
50% to Asia
12% to Middle East/India
6% to Europe

24 countries
161 cargoes
50% Asia
12% to Middle East/India
6% to Europe
23% Americas

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US LNG exports by buyer show Asia seasonality, particularly in China which is this year well surpassing contract import volumes.
China LNG Supply by Pricing Basis

• Has proportionally the most LNG contracts based on Henry Hub among Asian buyers.

• However, with the U.S. tariffs going forward, we expect that the suppliers will negotiate out of the HH towards JKM or Dated Brent.

* Also has some European gas-linked pricing (P) - Portfolio
Theory of HH Linked Volumes vs Reality: US prices converging with Qatari delivered prices in Asia as volumes ramp up

Weighted avg price from US & Qatar to Asia vs JKM

$/MMBtu

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Long-term global LNG contracts start expiring *en masse* post-2020; what will replace them in the spot market era?

**LNG contracts by buyer**

**Changes in LNG contract obligations pre/post 2020**

- **2017-2020**
  - Americas
  - Mideast
  - Europe
  - Rest of Asia
  - China

- **2020-2030**
  - Americas
  - Mideast
  - Europe
  - Rest of Asia
  - Japan
  - China

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