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**CHENIERE ENERGY, INC.**

Emerging World LNG Market: Forecast and the Effects on the North American Market

January 2020

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# Safe Harbor Statements

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## Forward-Looking Statements

This presentation contains certain statements that are, or may be deemed to be, “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements, other than statements of historical or present facts or conditions, included or incorporated by reference herein are “forward-looking statements.” Included among “forward-looking statements” are, among other things:

- statements regarding the ability of Cheniere Energy Partners, L.P. to pay distributions to its unitholders or Cheniere Energy, Inc. to pay dividends to its shareholders or participate in share or unit buybacks;
- statements regarding Cheniere Energy, Inc.'s or Cheniere Energy Partners, L.P.'s expected receipt of cash distributions from their respective subsidiaries;
- statements that Cheniere Energy Partners, L.P. expects to commence or complete construction of its proposed liquefied natural gas (“LNG”) terminals, liquefaction facilities, pipeline facilities or other projects, or any expansions or portions thereof, by certain dates or at all;
- statements that Cheniere Energy, Inc. expects to commence or complete construction of its proposed LNG terminals, liquefaction facilities, pipeline facilities or other projects, or any expansions or portions thereof, by certain dates or at all;
- statements regarding future levels of domestic and international natural gas production, supply or consumption or future levels of LNG imports into or exports from North America and other countries worldwide, or purchases of natural gas, regardless of the source of such information, or the transportation or other infrastructure, or demand for and prices related to natural gas, LNG or other hydrocarbon products;
- statements regarding any financing transactions or arrangements, or ability to enter into such transactions;
- statements relating to the construction of our proposed liquefaction facilities and natural gas liquefaction trains (“Trains”) and the construction of our pipelines, including statements concerning the engagement of any engineering, procurement and construction (“EPC”) contractor or other contractor and the anticipated terms and provisions of any agreement with any EPC or other contractor, and anticipated costs related thereto;
- statements regarding any agreement to be entered into or performed substantially in the future, including any revenues anticipated to be received and the anticipated timing thereof, and statements regarding the amounts of total LNG regasification, natural gas, liquefaction or storage capacities that are, or may become, subject to contracts;
- statements regarding counterparties to our commercial contracts, construction contracts and other contracts;
- statements regarding our planned development and construction of additional Trains or pipelines, including the financing of such Trains or pipelines;
- statements that our Trains, when completed, will have certain characteristics, including amounts of liquefaction capacities;
- statements regarding our business strategy, our strengths, our business and operation plans or any other plans, forecasts, projections or objectives, including anticipated revenues, capital expenditures, maintenance and operating costs, run-rate SG&A estimates, cash flows, EBITDA, Adjusted EBITDA, distributable cash flow, distributable cash flow per share and unit, deconsolidated debt outstanding, and deconsolidated contracted EBITDA, any or all of which are subject to change;
- statements regarding projections of revenues, expenses, earnings or losses, working capital or other financial items;
- statements regarding legislative, governmental, regulatory, administrative or other public body actions, approvals, requirements, permits, applications, filings, investigations, proceedings or decisions;
- statements regarding our anticipated LNG and natural gas marketing activities; and
- any other statements that relate to non-historical or future information.

These forward-looking statements are often identified by the use of terms and phrases such as “achieve,” “anticipate,” “believe,” “contemplate,” “develop,” “estimate,” “example,” “expect,” “forecast,” “goals,” “guidance,” “opportunities,” “plan,” “potential,” “project,” “propose,” “subject to,” “strategy,” “target,” and similar terms and phrases, or by use of future tense. Although we believe that the expectations reflected in these forward-looking statements are reasonable, they do involve assumptions, risks and uncertainties, and these expectations may prove to be incorrect. You should not place undue reliance on these forward-looking statements, which speak only as of the date of this presentation. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors, including those discussed in “Risk Factors” in the Cheniere Energy, Inc. and Cheniere Energy Partners, L.P. Annual Reports on Form 10-K filed with the SEC on February 26, 2019, which are incorporated by reference into this presentation. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by these “Risk Factors.” These forward-looking statements are made as of the date of this presentation, and other than as required by law, we undertake no obligation to update or revise any forward-looking statement or provide reasons why actual results may differ, whether as a result of new information, future events or otherwise.

# Agenda

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1 LNG Demand

2 LNG Supply

3 Pricing

4 U.S. LNG and Cheniere

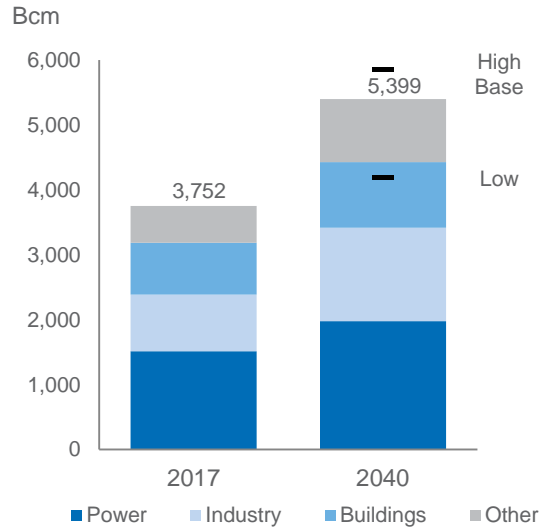
5 U.S. Fundamentals

6 Integrated Production Marketing (“IPM”)

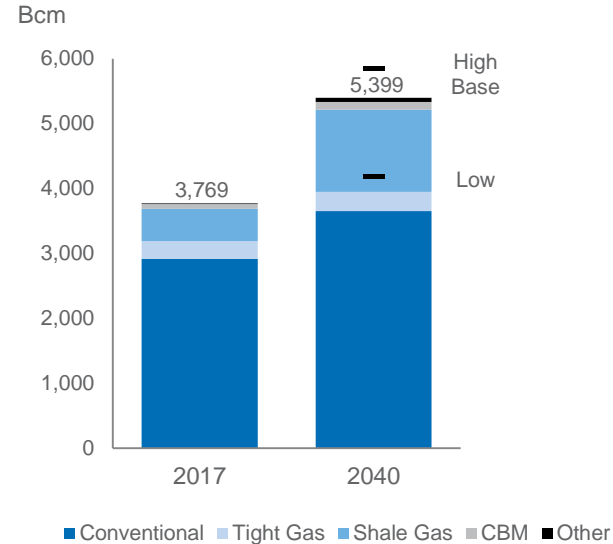
# Long-term Worldwide Outlook for Natural Gas Remains Robust

## LNG to facilitate gas demand growth and drive interregional trade

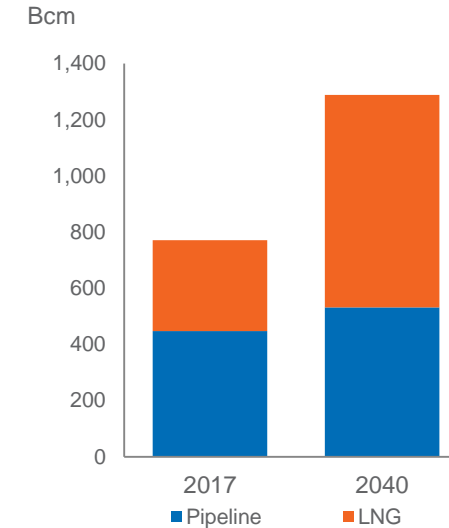
### Gas Demand Outlook



### Gas Supply Outlook



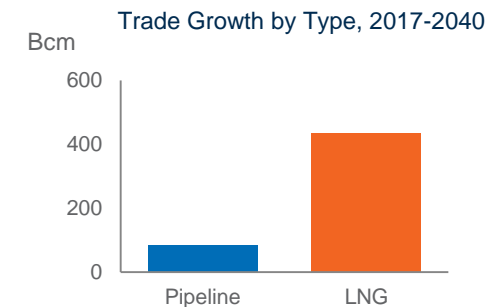
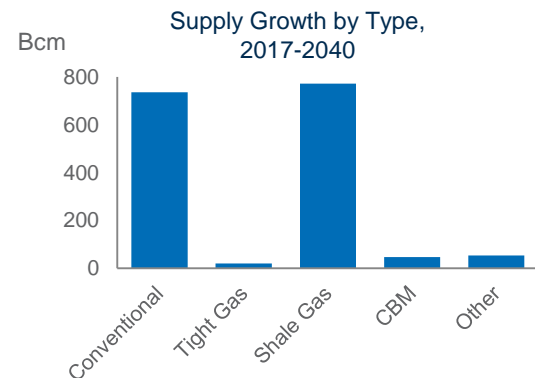
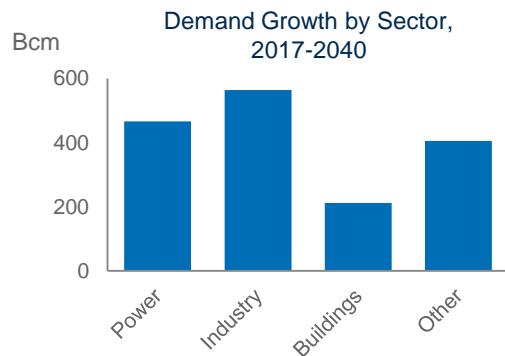
### Interregional Trade



Global gas demand set to grow by 44% to 2040<sup>1</sup>

CAGR of 1.6%

- Forecast range of +8% / -22% based on economic and environmental factors
- Natural gas ≈ 22% of world primary energy demand in 2017, 25% in 2040<sup>2</sup>
- Natural gas forecast to be the fastest-growing hydrocarbon to 2040
- CAGRs, 2017-2040<sup>3</sup>:
  - Gas = 1.6%
  - Oil = 0.4%
  - Coal = 0.1%



Interregional LNG trade set to grow by 134% to 2040<sup>1</sup>

CAGR of 3.8%

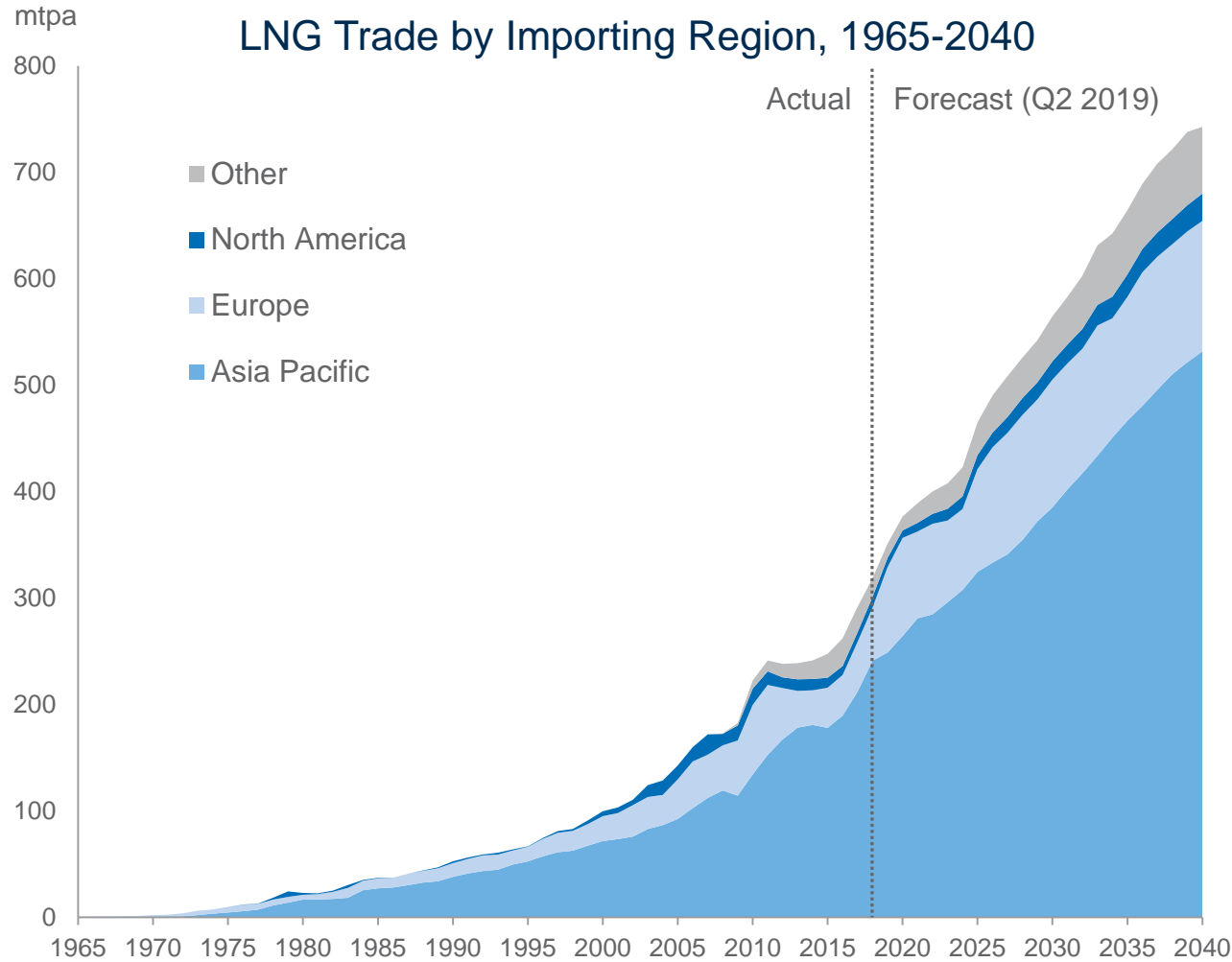
- LNG forecast<sup>4</sup> to account for ~17% of total gas consumption by 2040 (versus 11% in 2017)

Notes: Base = New Policies Scenario, High = Current Policies Scenario, Low = Sustainable Development Scenario  
Source: International Energy Agency World Energy Outlook 2018, IHS Markit (Jul. 2018), 2019 BP Energy Outlook

(1) Growth projections from 2017 to 2040 under the IEA's 2018 New Policies Scenario.  
(2) Projected share under the IEA's 2018 New Policies Scenario.  
(3) Projected CAGRs under the IEA's 2018 New Policies Scenario.  
(4) Based on IHS Markit's Jul. 2018 "Rivalry" scenario and the 2019 BP Energy Outlook.

# LNG is a High Growth Industry

## Underpinned by strong fundamental growth drivers



- Total LNG trade forecast to grow to 743 mtpa (~100 Bcf/d) in 2040 from 319 mtpa (~40 Bcf/d) in 2018
- CAGR of 3.9% to 2040<sup>1</sup>
- LNG provides affordable, secure, and sustainable energy worldwide
- Diversification of trade via access to more distant supplies/markets
- Particularly for high economic growth and “hydrocarbon-poor” Asia region
- Asia accounts for 64% of global primary energy demand growth to 2040 and ~50% of global gas demand growth<sup>2</sup>

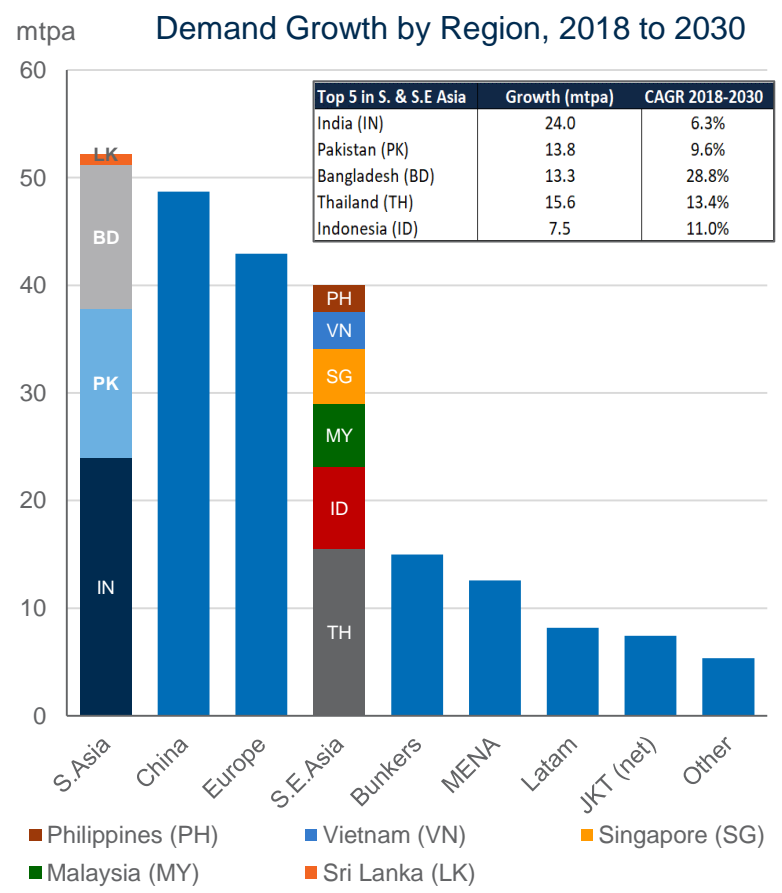
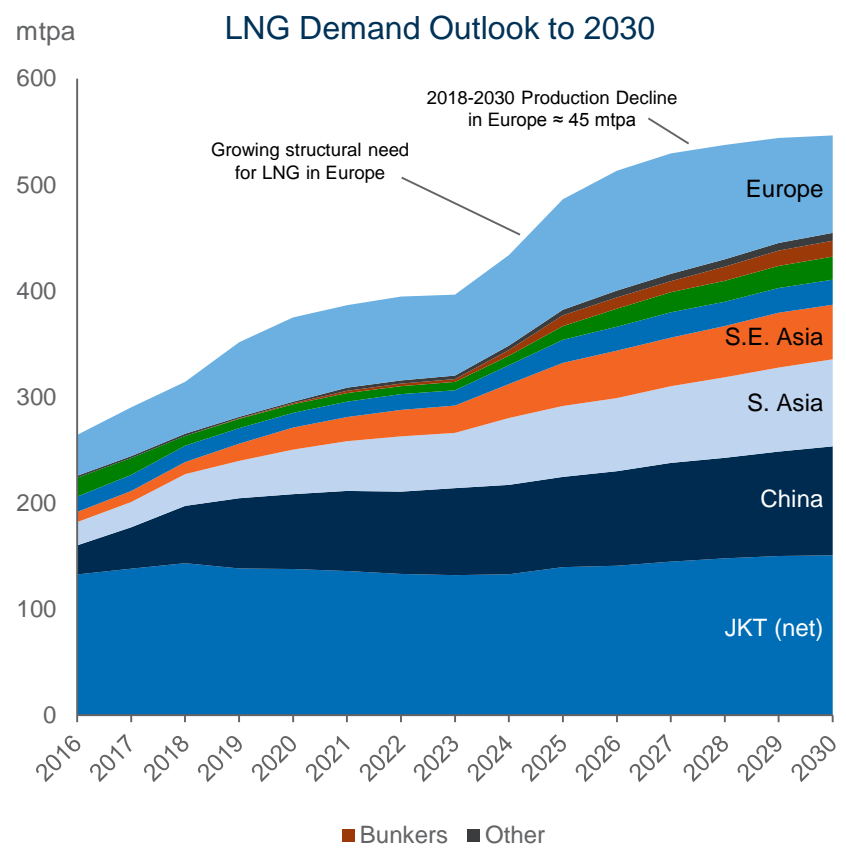
(1) Slightly higher than the CAGR implied by the corresponding IEA outlook as this includes both inter- and intra-regional trade.

(2) Growth projections from 2017 to 2040 under the IEA's 2018 New Policies Scenario.

Source: IHS Markit (May 2019) for chart actuals, Wood Mackenzie (Q2 2019) for chart forecasts, International Energy Agency World Energy Outlook 2018

# LNG Demand Overview

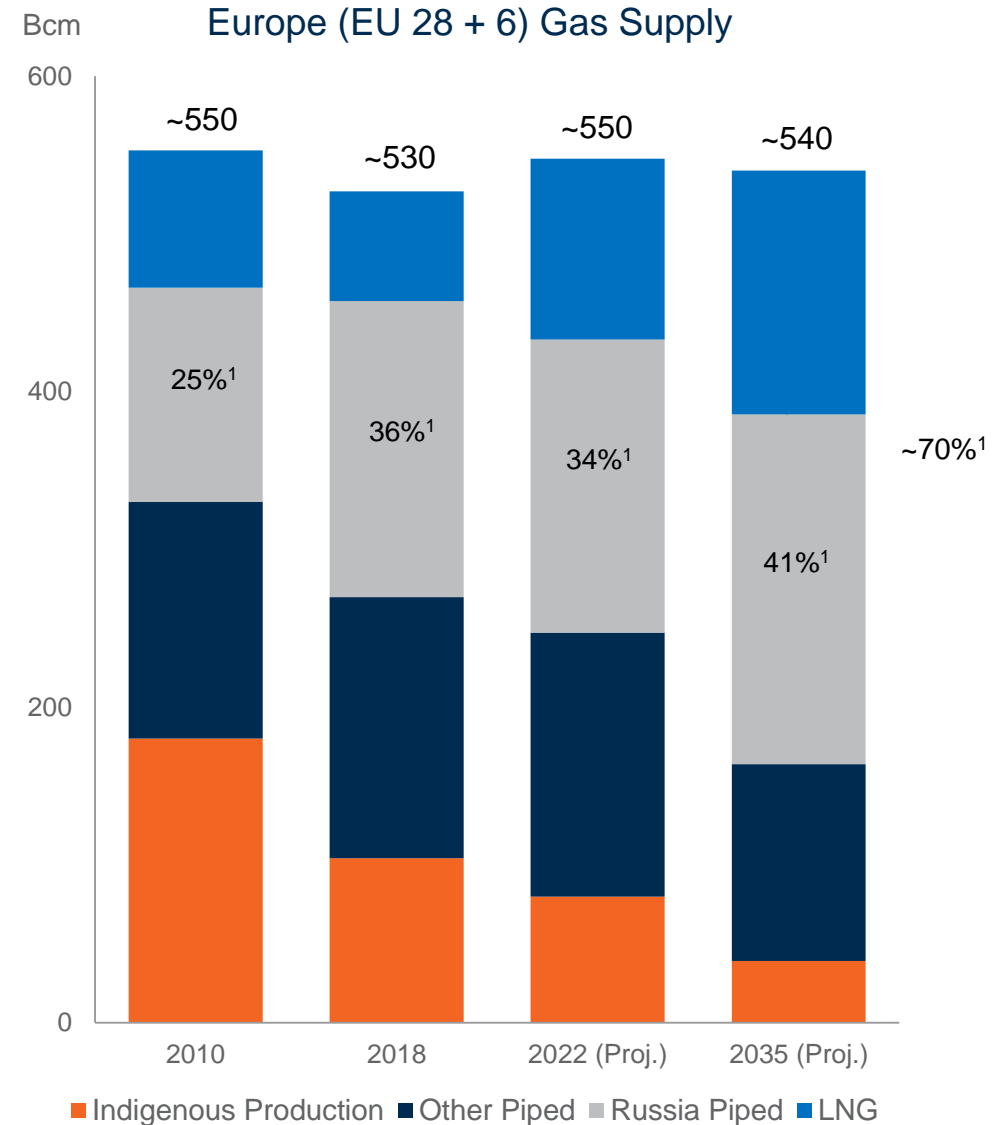
- Emerging markets in Asia will gain market share as more infrastructure is developed
  - Emerging Asia forecast represents 43% of the global LNG trade in 2030; China, India and Pakistan are among the top three markets as they aim to grow gas share from ~7% to 15% in the energy mix by 2030
- Structural changes in Europe will increase the need for gas in the second half of the decade as domestic supplies dwindle and urgency around environmental targets intensifies



Source: Cheniere Research, Wood Mackenzie (H1 2019)

# Europe Will Require Additional Volumes

- Fundamentals indicate a growing natural gas import dependency over time
  - Indigenous production forecast to decline
  - Non-Russia pipeline (net) forecast to decline
  - ~70%<sup>1</sup> of natural gas imports forecast to be supplied by Russian pipeline plus LNG in 2035
- LNG represents a robust supply solution
  - Source diversification
  - Flexibility to balance renewables
  - Use of existing infrastructure
- U.S. LNG well placed to supply Europe
  - Forecast to represent 46% of Atlantic Basin supply by 2022
  - Relatively close to market
    - U.S. – 14 days<sup>2</sup>
    - Qatar – 19 days<sup>2</sup>
    - Mozambique – 21 days<sup>2</sup>
- Mix of long-term & spot LNG volumes gives buyers best protection against the commodity cycle



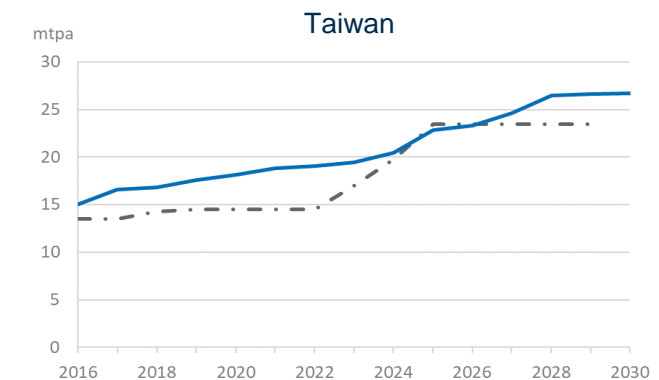
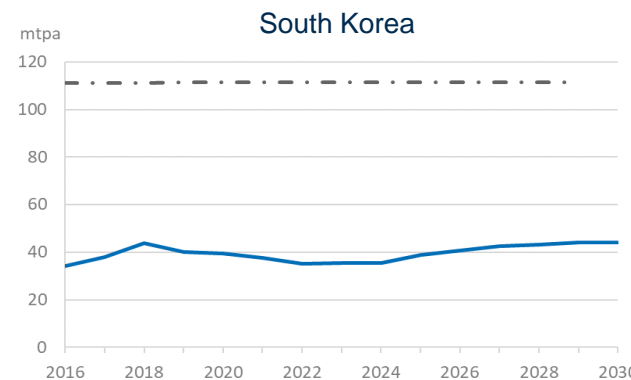
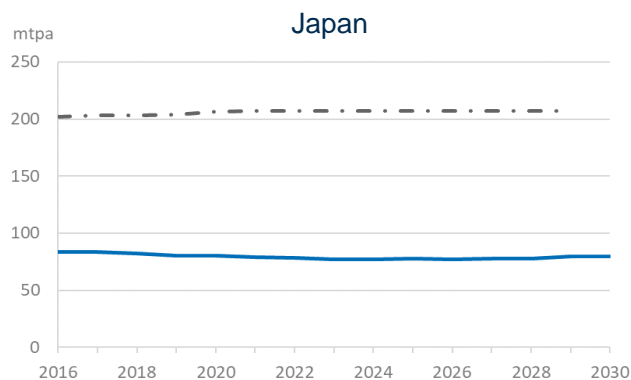
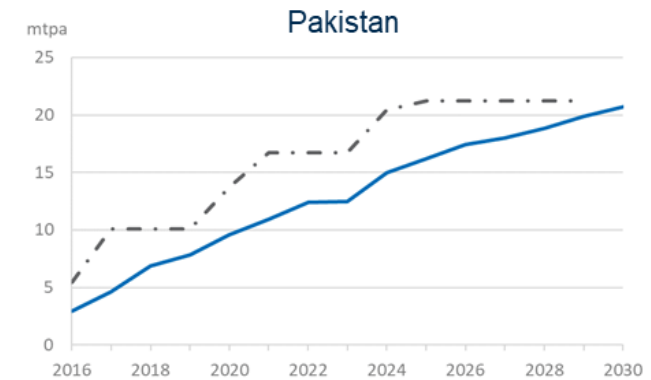
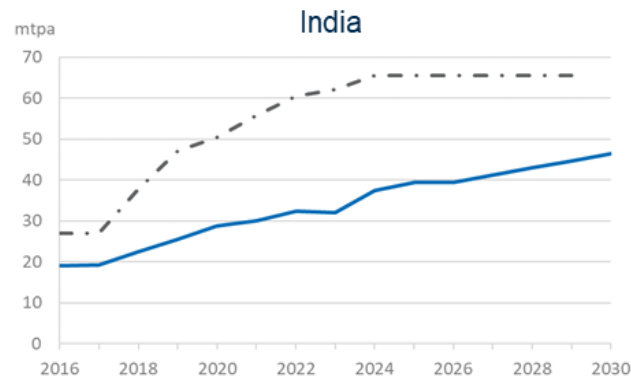
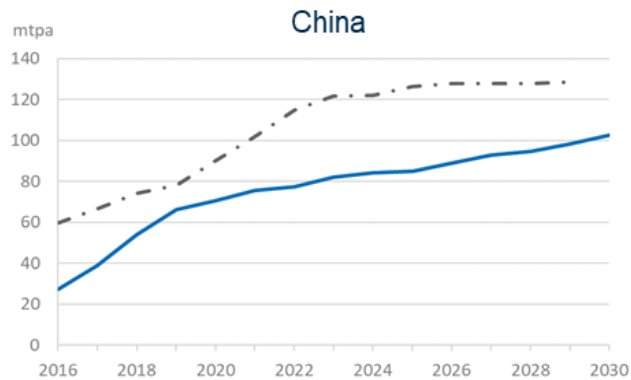
(1) Percentage of EU 28+6.

(2) Days sailing time one-way at 16 knots.

Source: Cheniere interpretation of Wood Mackenzie data (H1 2019)

# Six Key Markets in Asia Projected to Account for ~60% of Global LNG Demand in 2030

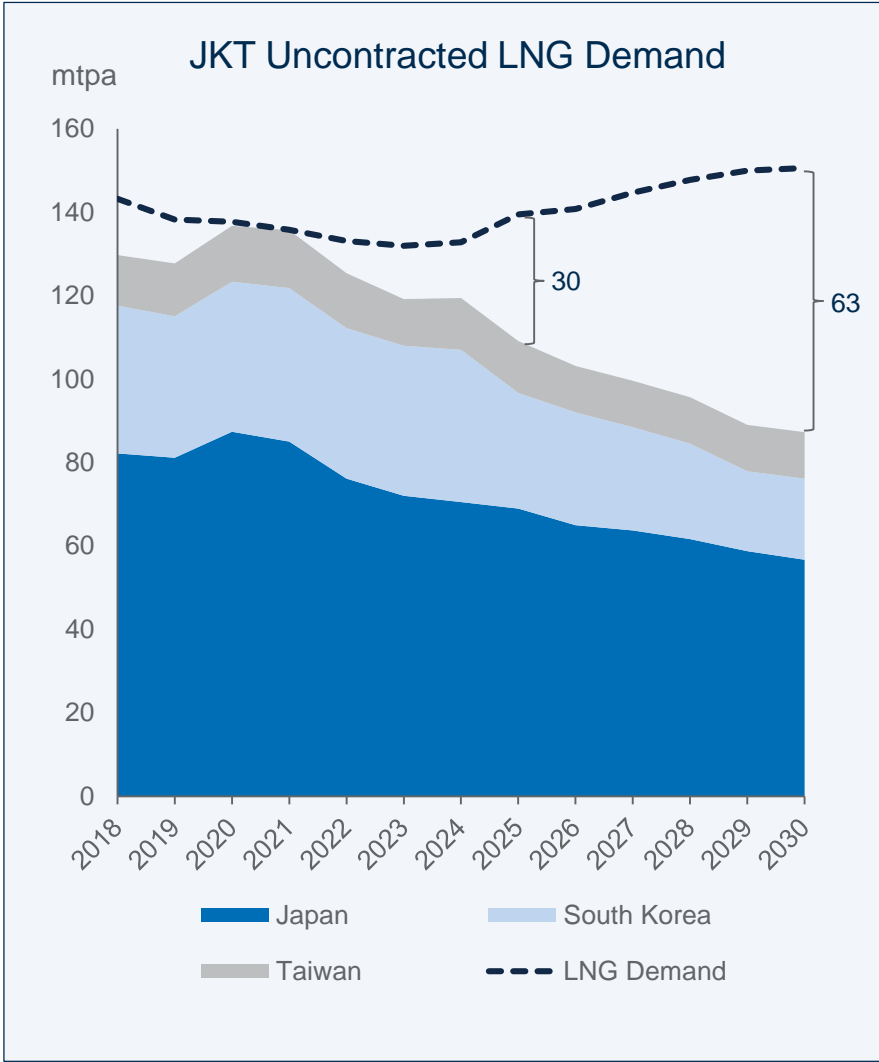
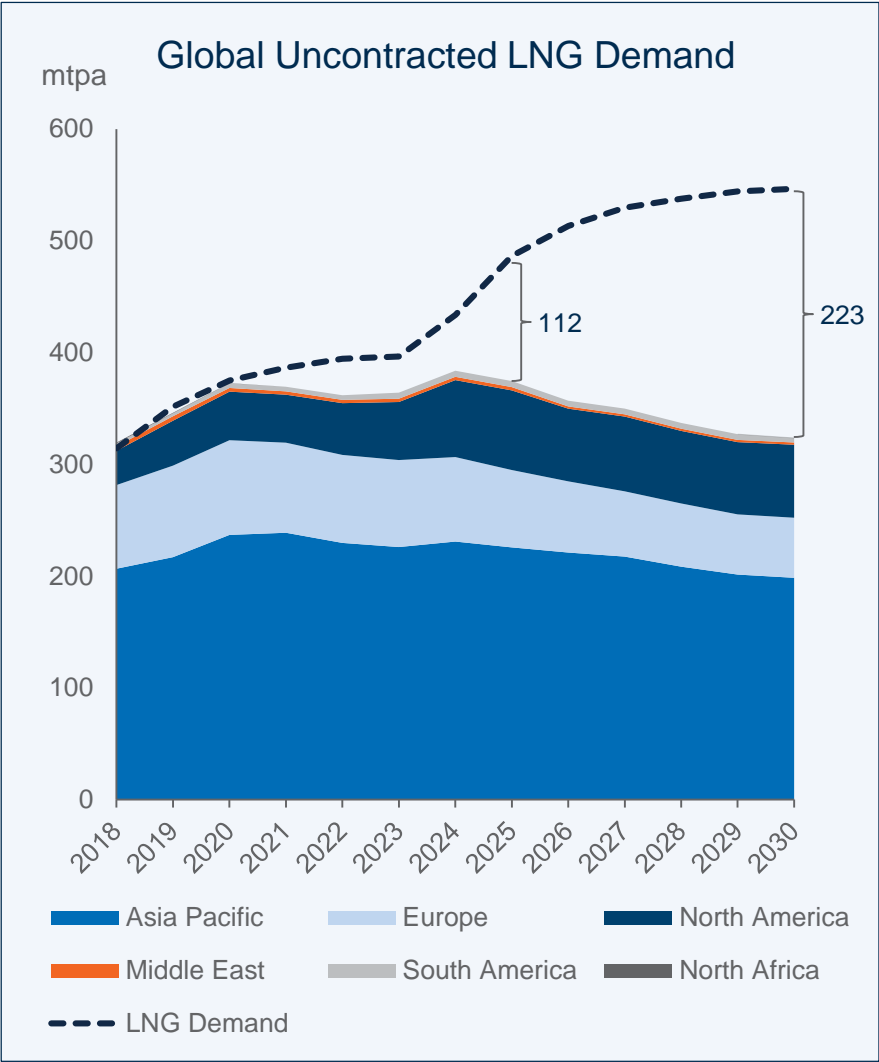
- Environmental commitments in emerging markets in Asia such as China and Pakistan, displacement of liquid fuels in power generation, and replacement of depleting gas reserves in countries such as Thailand and Indonesia, have resulted in pent-up demand and is expected to accelerate LNG demand
- The sizeable, mature JKT market is still expected to represent nearly 30% of the overall market by 2030. This market will need to replace a significant amount of LNG contract roll-offs in the coming few years



Note: Dashed lines show regasification capacities.



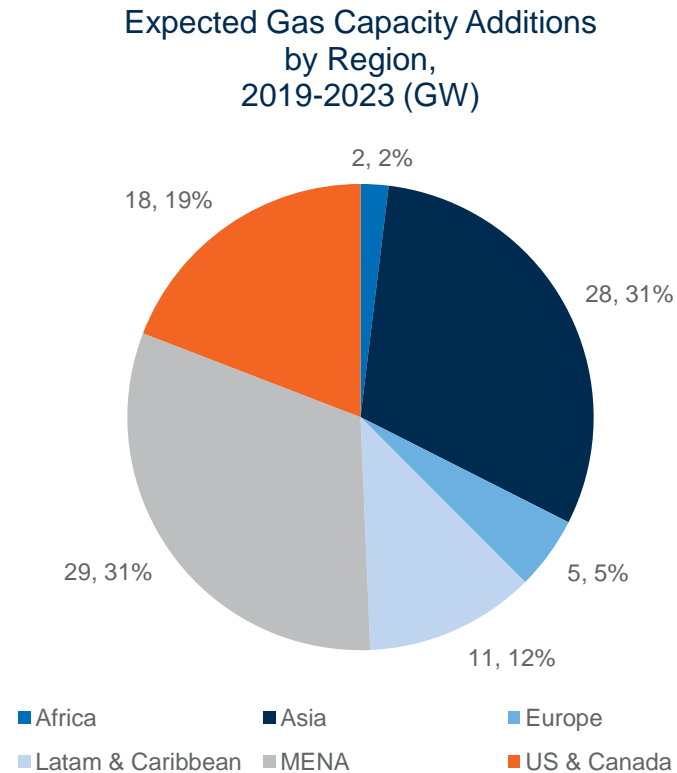
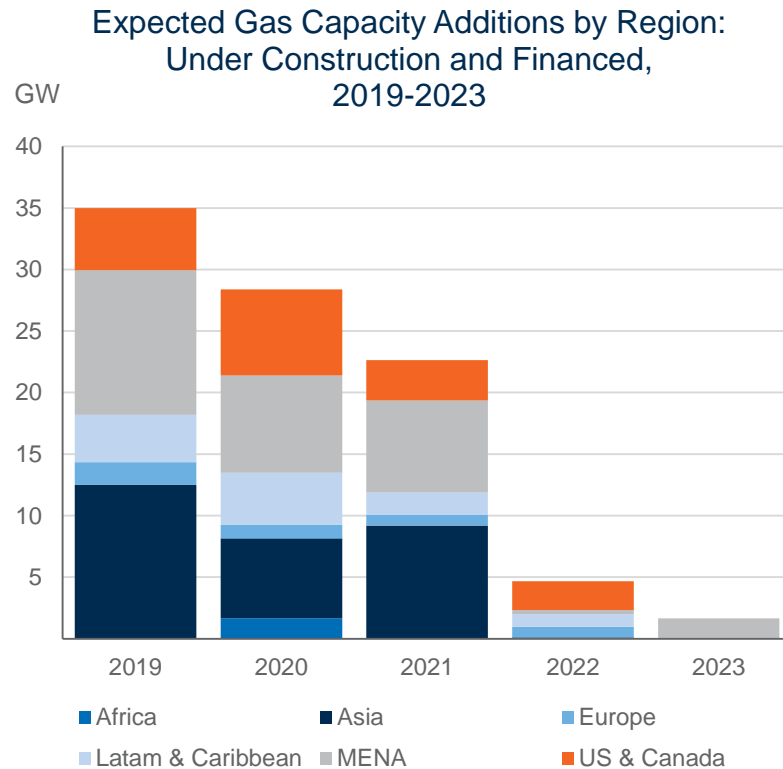
# Expiring Contracts will Further Contribute to “Demand Pull” for U.S. LNG



Source: Cheniere interpretation of Wood Mackenzie data (Q1 2019), Cheniere Research

# U.S. LNG Can Help Global Markets Achieve Environmental Goals

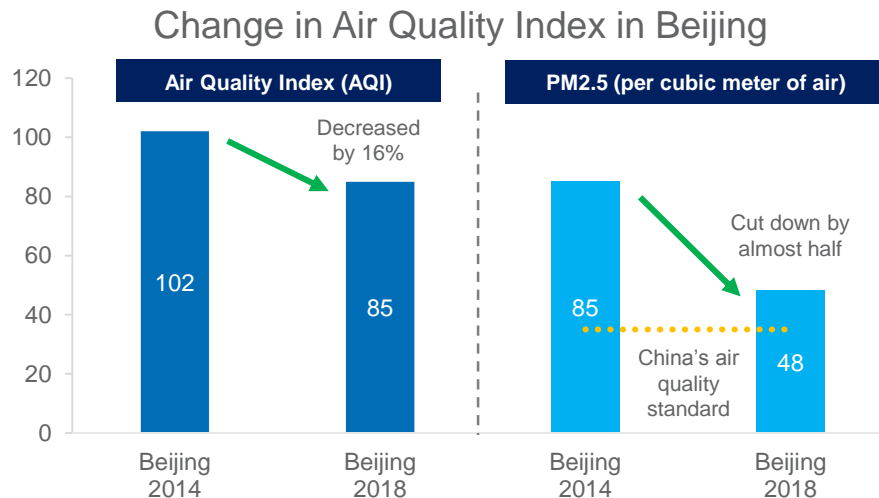
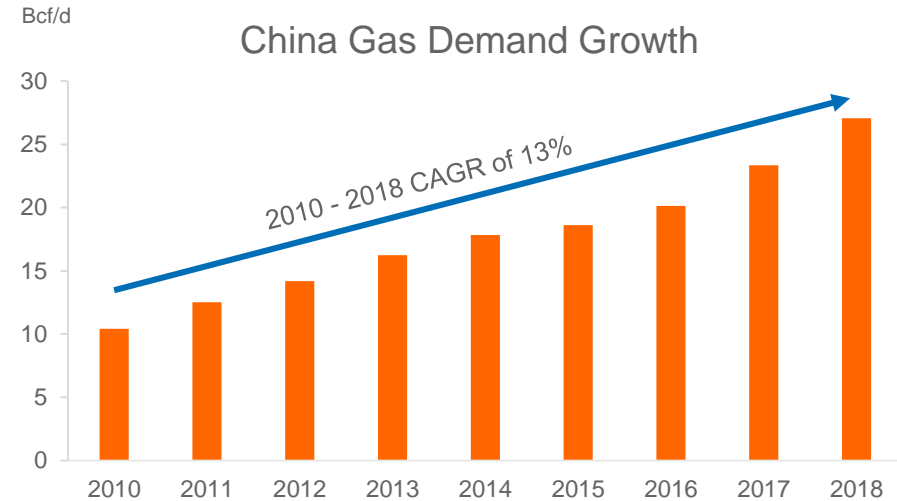
- A combination of responsible environmental policy and favorable market signals has spurred plans to increase the use of cleaner-burning fuels
- China, India, and Pakistan have significant coal and fuel oil displacement demand
- Europe's energy transition requires closure of ~100 GW of coal and nuclear capacity by 2035-2038
- About 95 GW of gas-fired power generation is currently under construction or financed globally—expected online by 2023
- U.S. LNG can help these economies achieve sustainable, environmentally responsible growth



# Case Study - China

## The Drive for Clean Air - As China Emerges as the Largest Global Economy

- China is seeking to achieve **peak CO2 emissions by 2030** and lower carbon intensity of GDP by 60%–65% below 2005 levels by 2030
- China is targeting to expand the use of natural gas to reach a 15% share in the primary energy consumption by 2030 from the current ~8%
- Currently gas penetration in the power sector is limited to ~3%. Given the size of the market, a 1% switch from coal to gas in electricity generation can generate a 1 Bcf/d\* of gas demand
- President Xi has placed a lot of emphasis on reducing coal burn to alleviate pollution. The environmental benefits were visible in the recent few years especially in Beijing and surrounding areas where coal use was curbed
- in 2018 China coal accounted for 67% of the country's electricity generation in 2018, down from 78% in 2008
- In 2018, China consumed 280 Bcm of natural gas, and demand is expected to reach 450-666 Bcm by 2030



**“China faces about 1.6 million premature deaths a year as a result of air pollution” - U.S. Health Effects Institute**



Sources: BP Statistical Review 2019, Air Quality Data is from <https://www.aqistudy.cn/historydata/about.php>

# Case Study - India

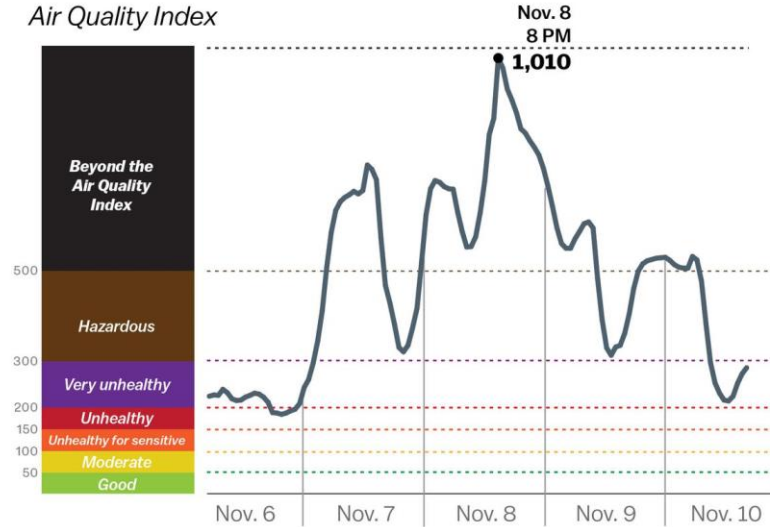
## The next China ?

- **India is Home to 7 of the 10 most polluted cities in the world**
- New Delhi was the world's most polluted capital city in 2018, with average annual concentration of PM2.5 in a cubic meter of air of 113.5, more than double the level of Beijing
- Coal provides ~70% of India's electrical energy needs, and 1.24 million citizens die annually as a result of the choking smog
- India is the largest emitter of Sulphur dioxide (SO<sub>2</sub>) in the world, 15% of global anthropogenic emissions, and is home of five of the top 10 SO<sub>2</sub> emission hotspots worldwide
- The primary reason for India's high emission output is the expansion of coal-based electricity generation over the past decade
- India aims to increase the share of gas in the energy mix from the current 6.2% to 15% by 2030
- Plans to expand the domestic pipeline network, LNG import capacity and the expansion of the city gas distribution network
- India is developing several pipeline expansion projects, which total over 4200 km
- The government's strategy of market and pricing reforms is expected to enable further growth in natural gas consumption

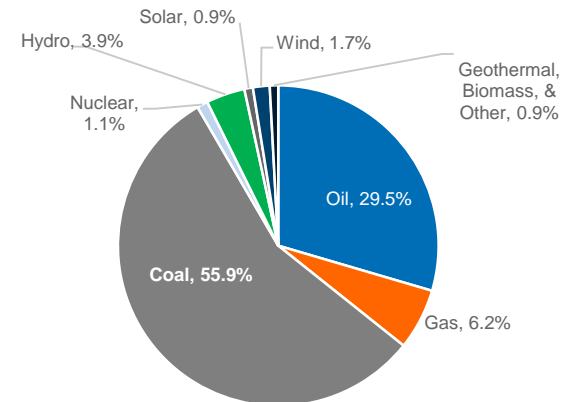


Source: Vox, U.S. State Department, Reuters, CNN

## When Delhi became the most polluted city on Earth



## 2018 Primary Energy Consumption Mix



# Case Study – Thailand

## Replacing Existing Supply in Gas-Based Economies Across the Region

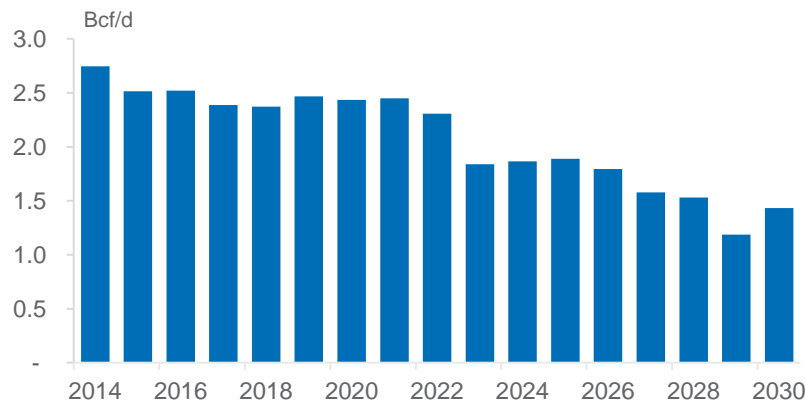
- LNG demand in Thailand has been growing at 28% per annum since starting in 2011
- While gas is the dominant generating fuel, over 20% of the country's power is still generated by coal
- In addition its domestic gas production is expected to decline in the next few years
- The Thai society has been very vocal against coal for environmental reasons
- Bangkok's Air Quality Index (AQI) reached 200, just barely below the "very unhealthy" category
- Protests and hunger strikes in Bangkok forced the government to suspend the construction of two coal-fired power plants, Krabi (0.8 GW) and Thepa (2 GW)
- The newly approved Power Development Plan (PDP) increased the share of gas in generation to 53% in 2037 vs. 37% today

Gas production is expected to decrease at a CAGR of 4%

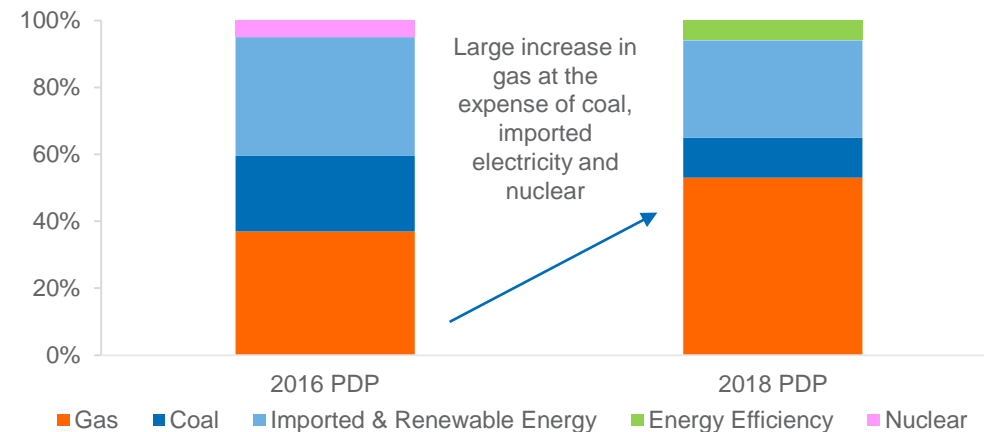


## Gas Favored in Thailand's New Power Development Plan

Domestic Gas Production Outlook



Power Generation Mix 2036-2037



# Wide Range of Potential New Importing Countries & Regions as a Result of Lower Barriers to Entry and Attractive Characteristics of LNG in Power

There are currently 43\* existing importing countries, up from only 15 in 2005



Source: Cheniere Research (2019)

\* Includes Bahrain



# Agenda

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1 LNG Demand

**2 LNG Supply**

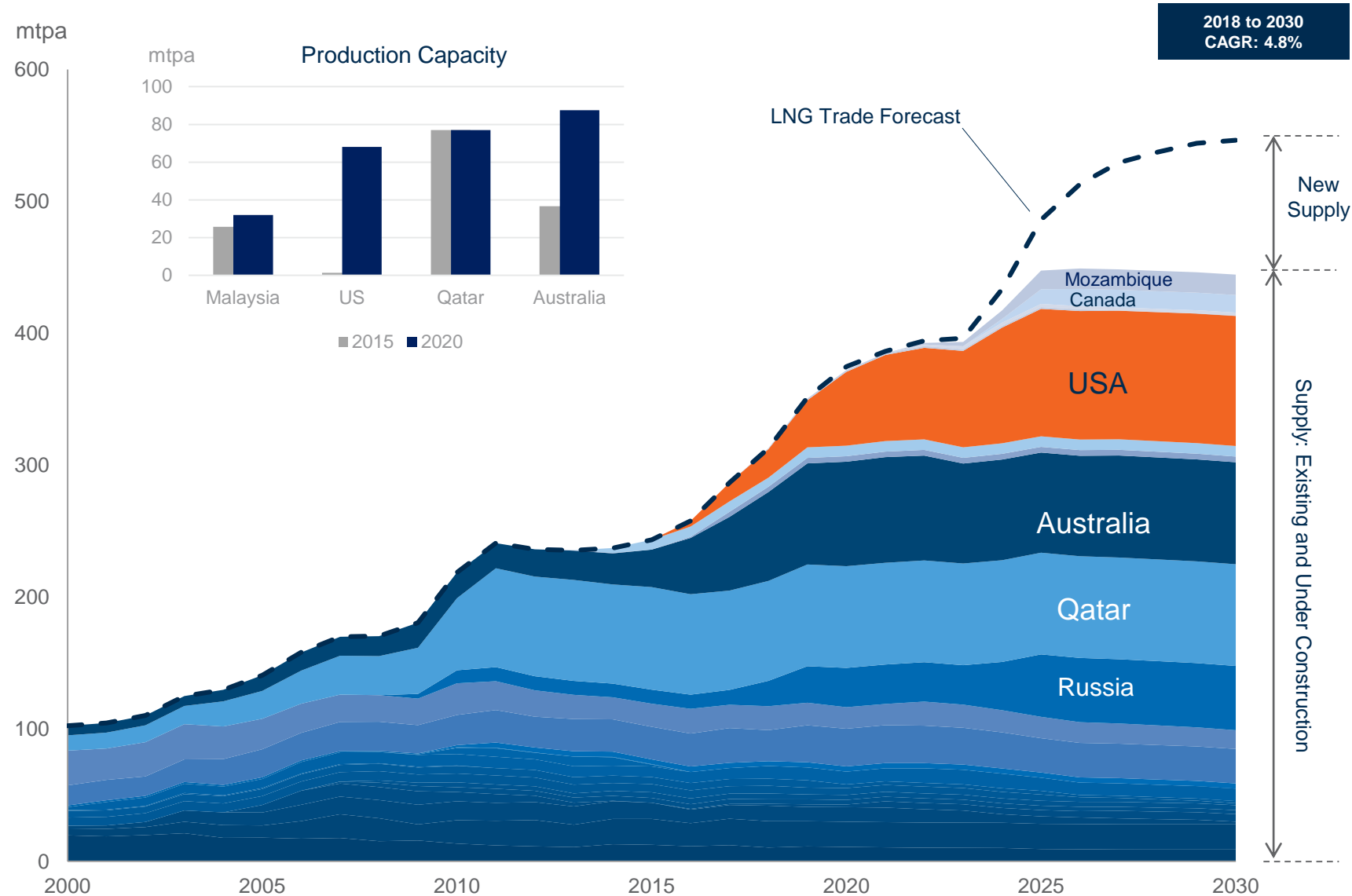
3 Pricing

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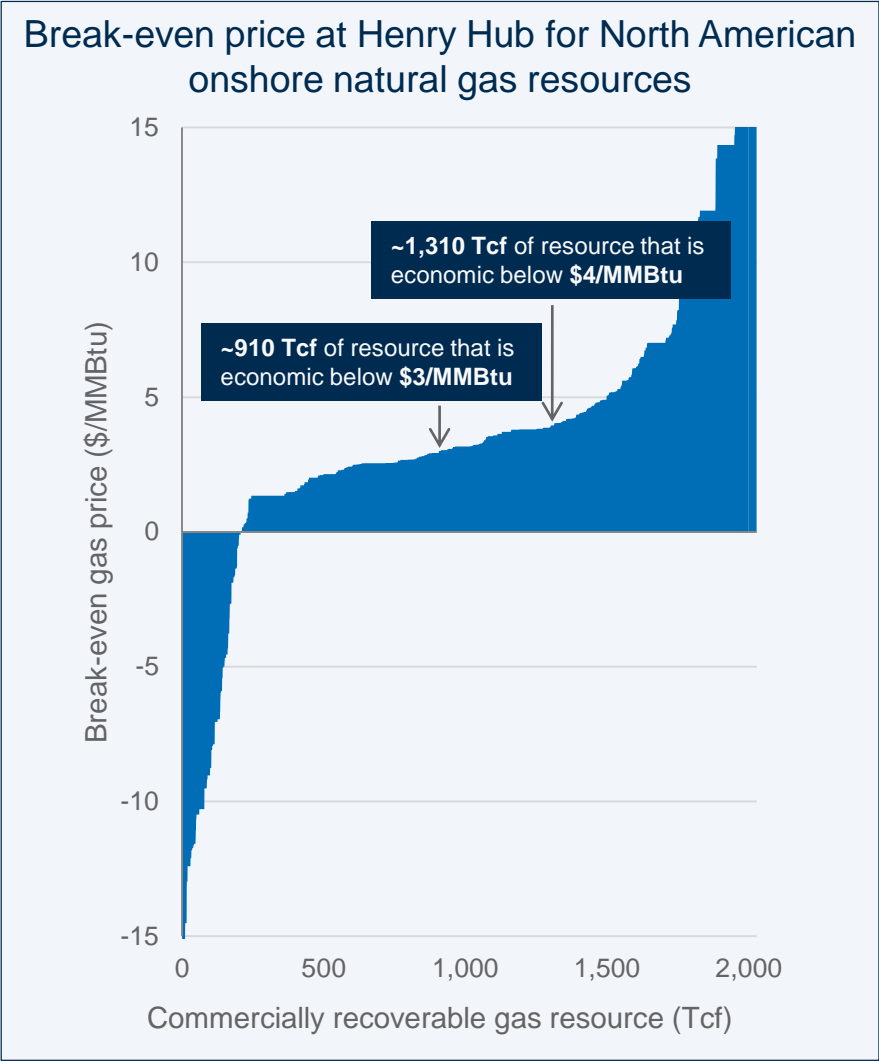
# LNG Supply Capacity (Existing & Committed<sup>(1)</sup>) vs. Demand



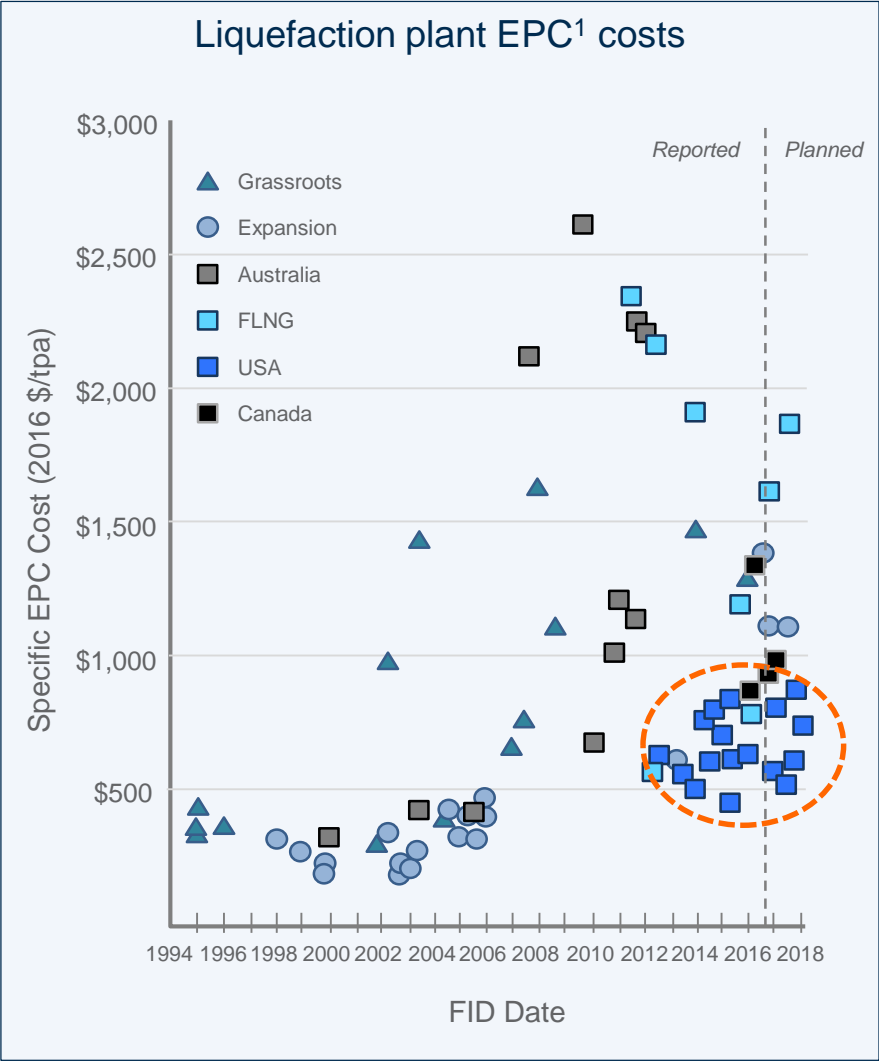
Source: Cheniere Research estimates; Wood Mackenzie for historical figures  
(1) Area chart includes all recent FIDs to September 5, 2019 such as Golden Pass, SPL T6, Mozambique LNG, Calcasieu Pass and Arctic LNG 2



# U.S. LNG Well-Placed to Compete on Costs



Source: IHS Markit (Jan. 2019)



Source: Poten & Partners, Inc.

Note: (1) Engineering, procurement and construction costs for liquefaction plant. Does not include upstream development, pipelines or financing and owner's costs.

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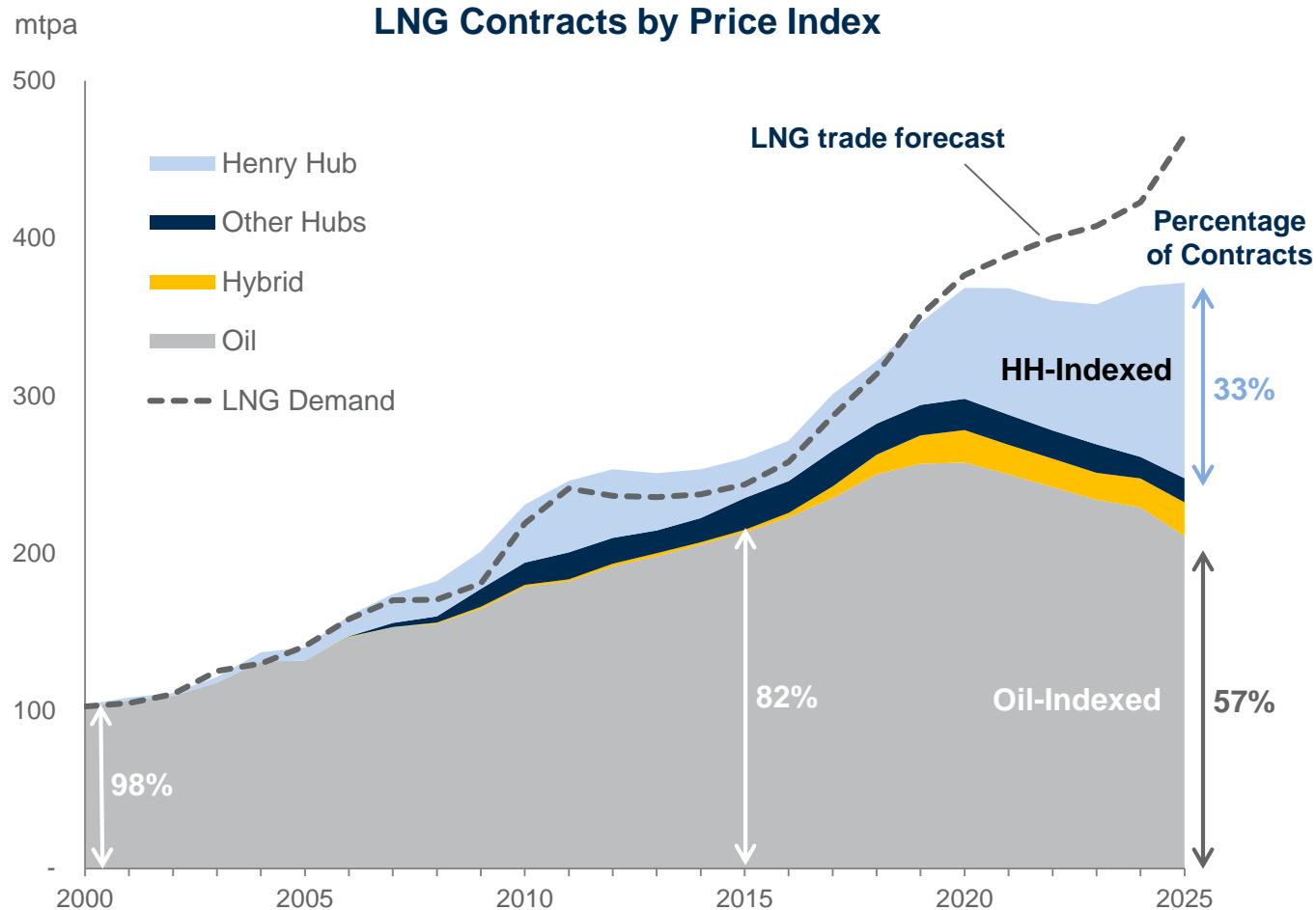
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# US LNG will Have a Growing Global Influence

## Diversification from oil indexation



- Henry Hub contracts are contributing to price index diversity
- LNG from the U.S. will improve price connectivity between markets, and enhance LNG price discovery
- US LNG will represent an increasing proportion of global contracts

*Note: Includes all SPAs.*

*Source: Cheniere Research interpretation of internal and Wood Mackenzie data (Q2 2019). Wood Mackenzie (Q2 2019) used for LNG demand forecast.*

# Wide Uptake of U.S. Volumes by Buyers

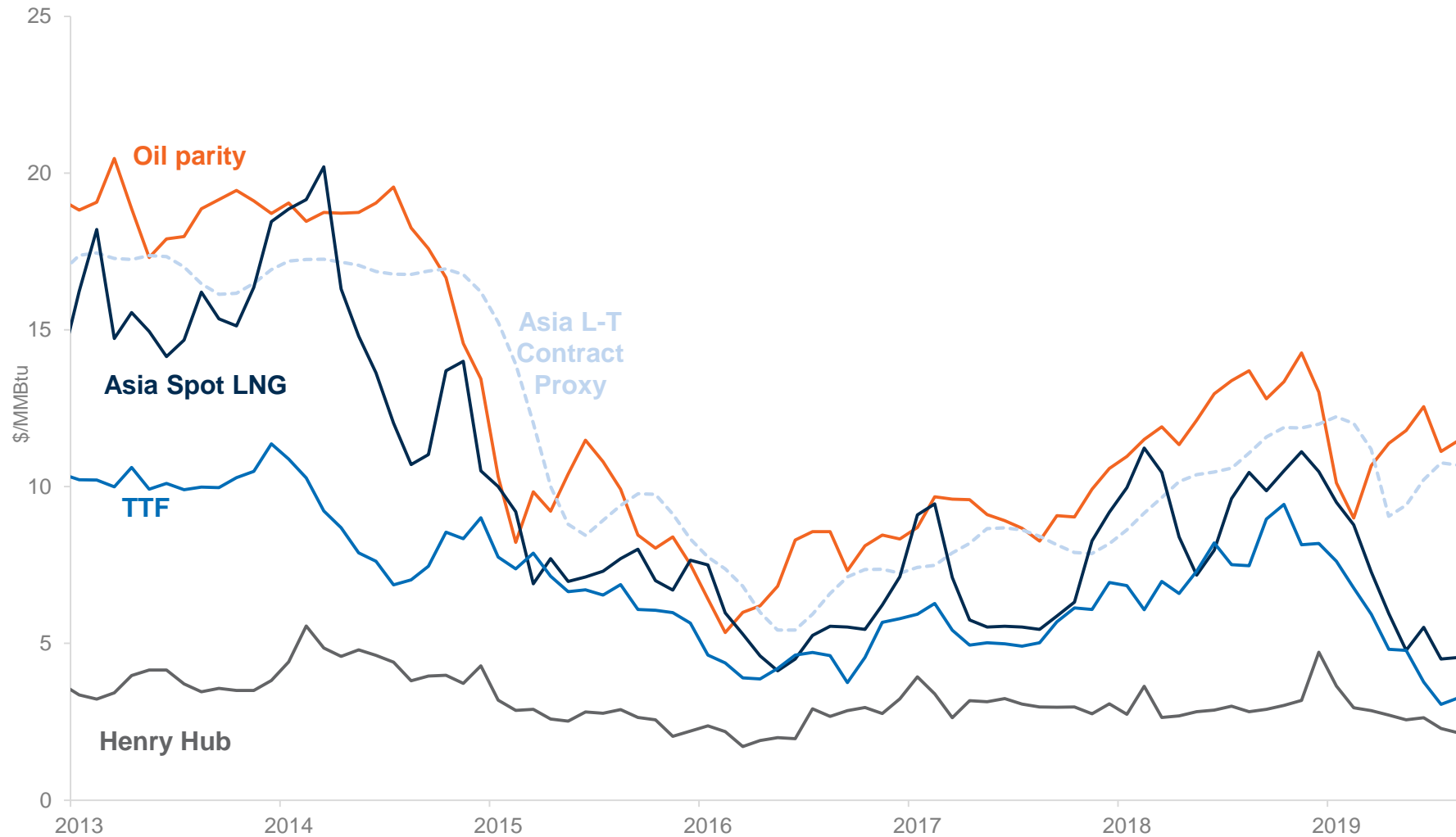
Price index and source diversity are increasingly important as players seek to reduce risk exposure



Source: Cheniere Research; Wood Mackenzie  
Note: Volume shown is net of resale

# Global Gas Prices

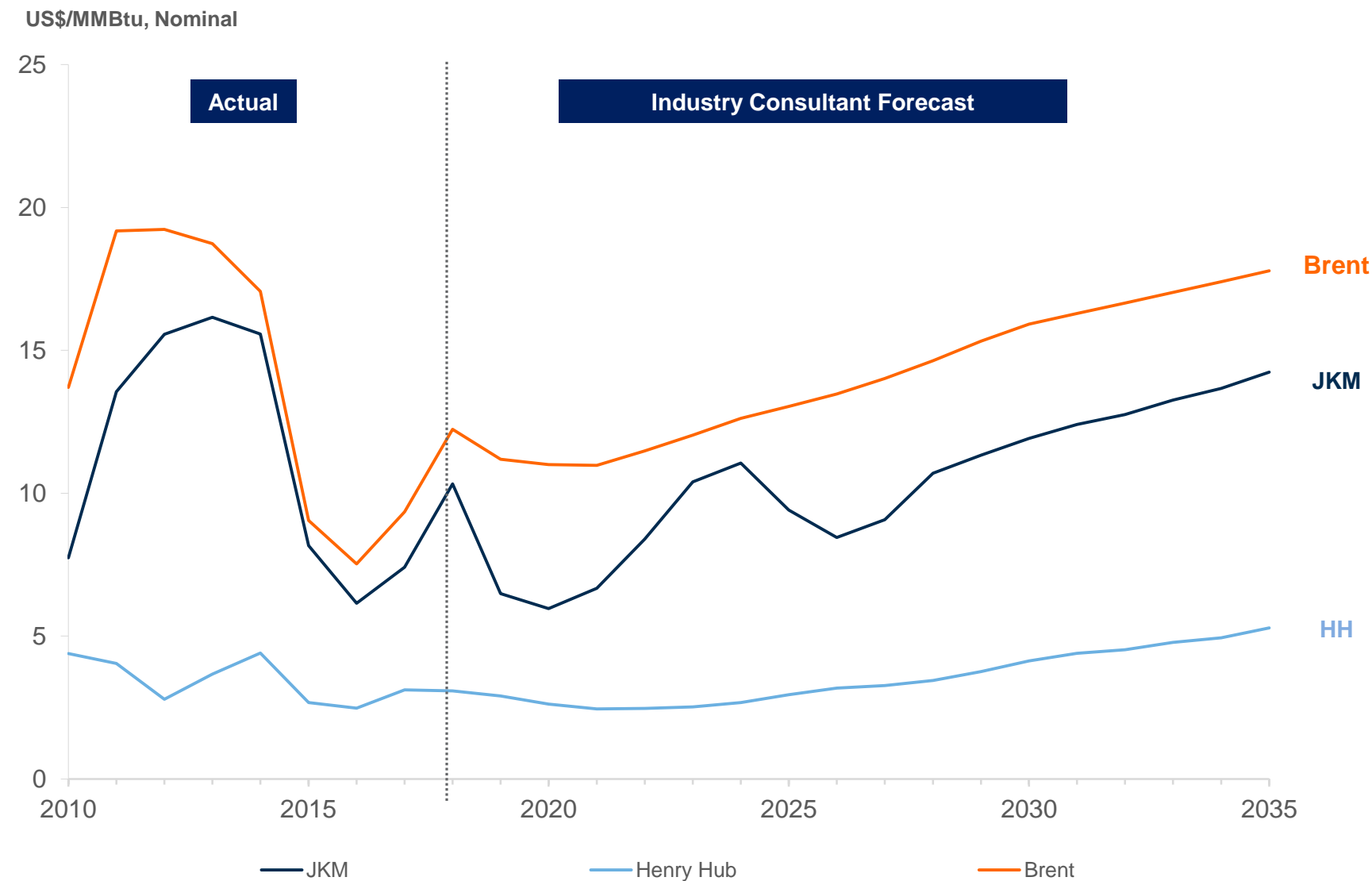
JKM Has Historically Priced Between Crude Oil Parity and European Hub Prices



Sources: Bloomberg (settlements as of 9/6/2019), CME, ICE, Platts, Japan Ministry of Finance, Cheniere Research

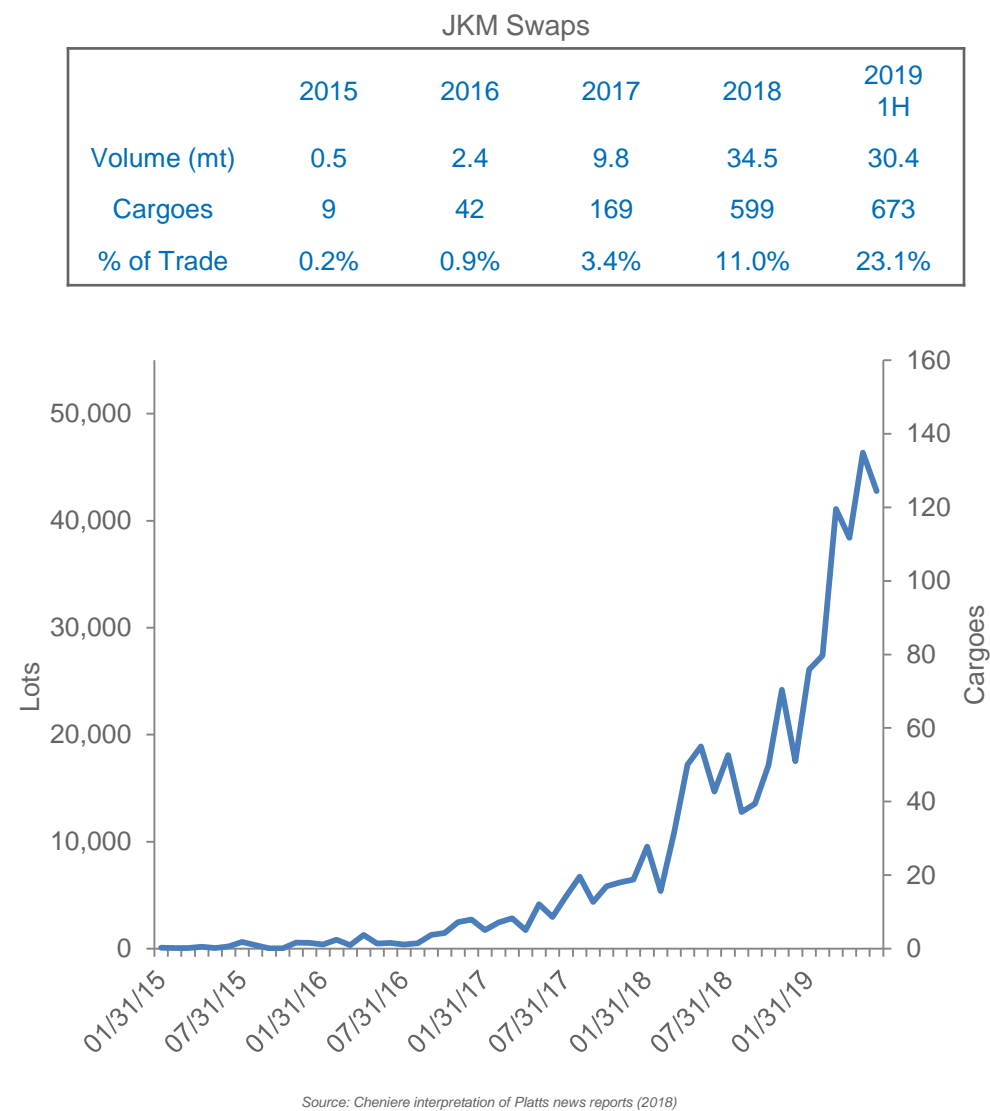
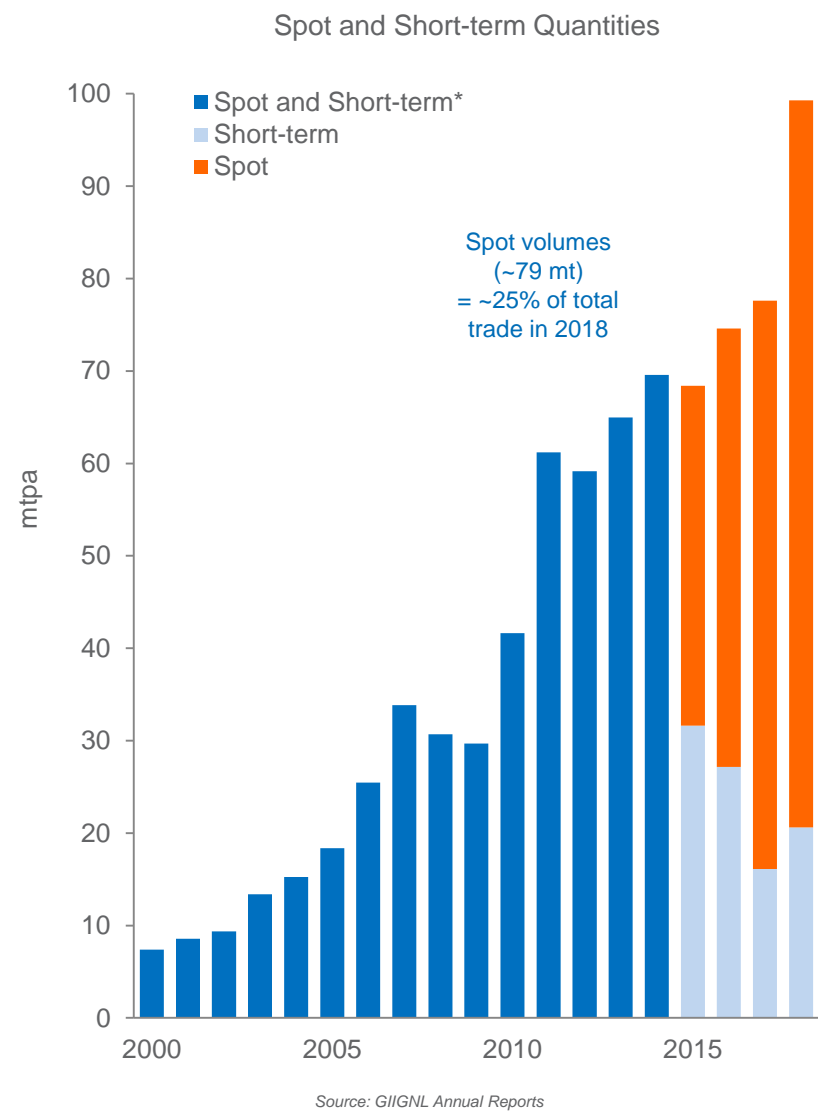
Note: Asia L-T Contract Proxy = 14.85% Japan Crude Cocktail (3-month average) + \$0.50/MMBtu; same formula is used with Brent crude oil prices for forward curves

# Long-Term Price Outlook



Source: Wood Mackenzie (H1 2019), IHS Markit (Aug. 2019)

# Increasing Liquidity and Traded Volumes

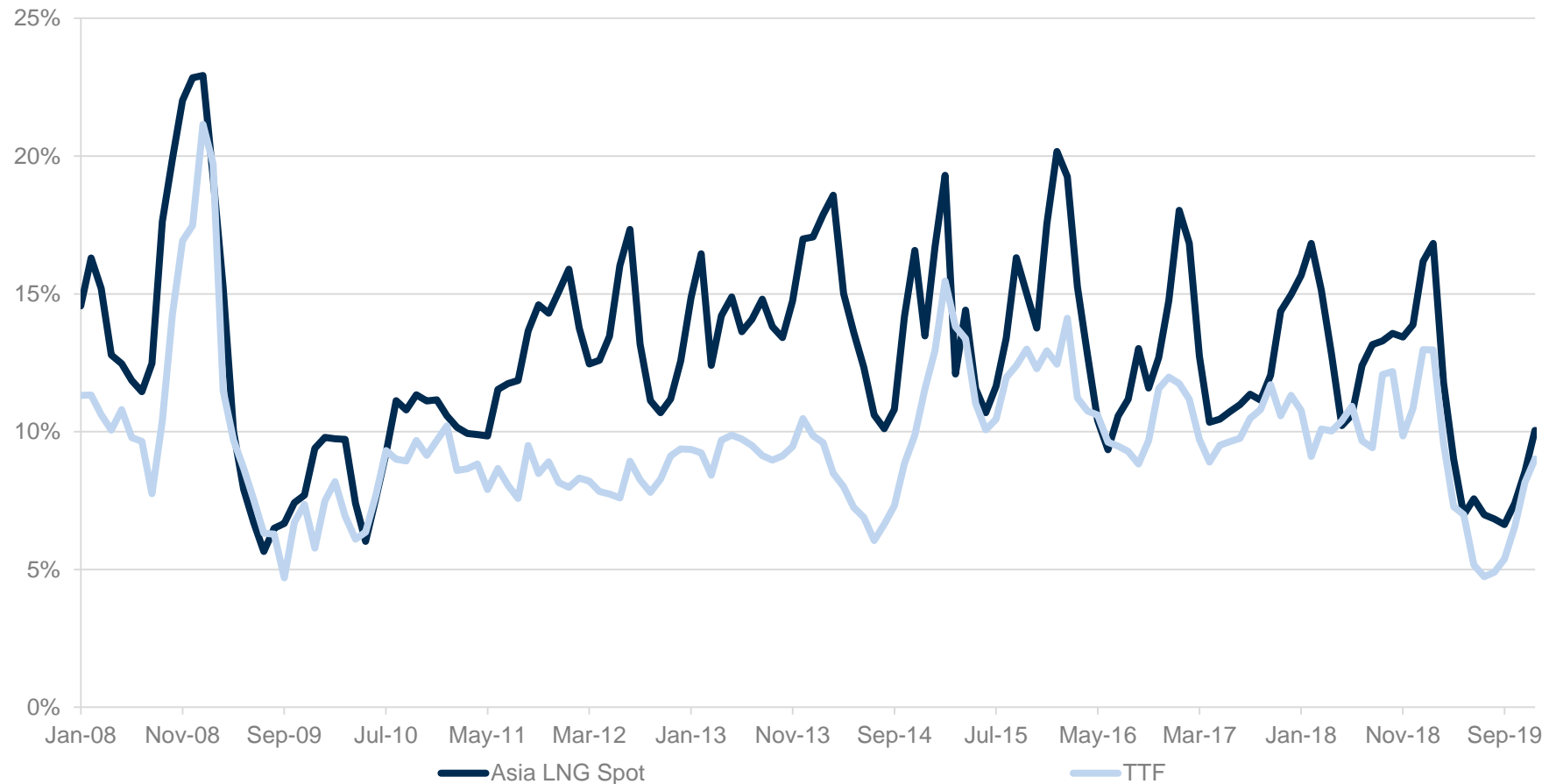


\* Spot = delivered within 90 days; Short-Term = 90 days to 4 years

# Asian and European Spot Price Trends Versus Brent

- Average JKM % of Brent since 2008 = 12.8%
- Average TTF % of Brent since 2008 = 9.7%

**TTF and Asia Spot Price Curves as % of Brent**



Sources: Bloomberg (settlements as of 9/6/2019)



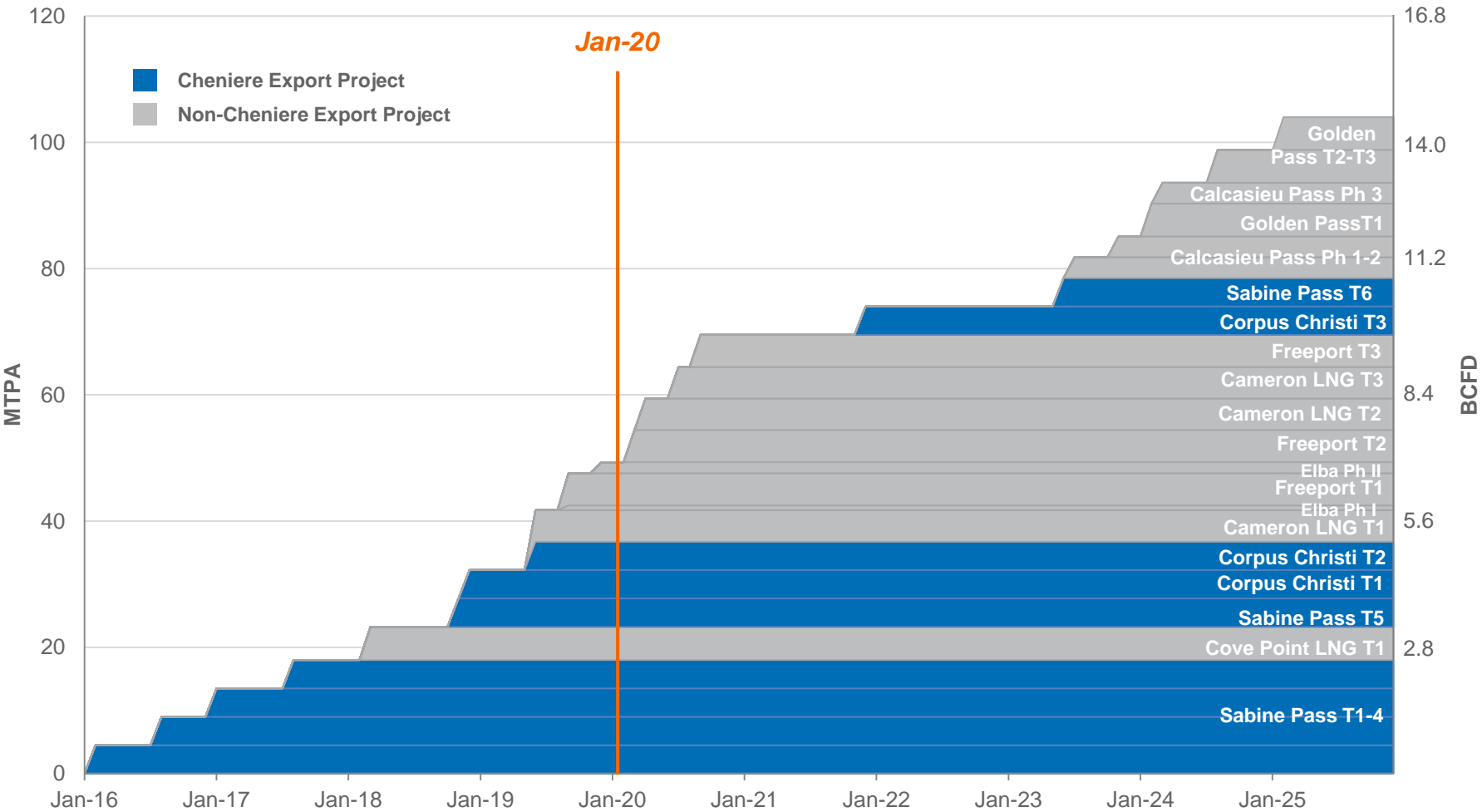
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# U.S. LNG Capacity Growing Rapidly

Cheniere Constructing over 40% of Expected U.S. LNG Export Capacity Through 2025



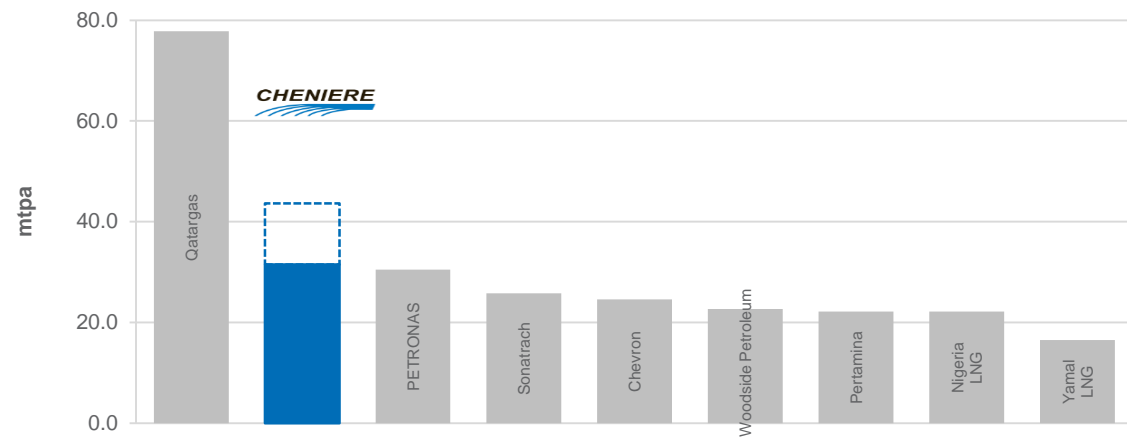
Source: Cheniere Research estimates for first export about three months prior to projected Substantial Completion dates. Actual start dates may differ depending on construction schedules.

# Scale of Cheniere Business Lines

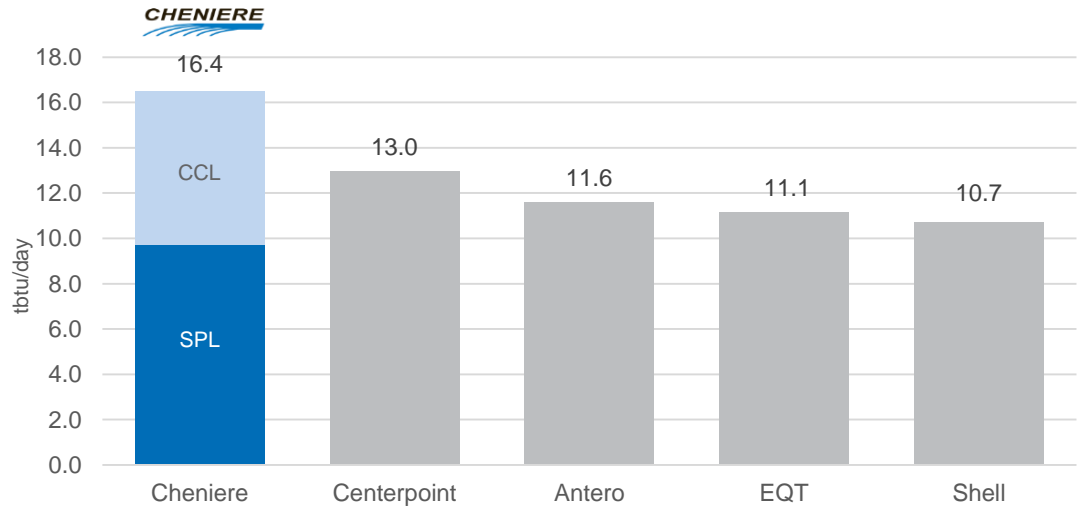
## Significant size advantage across liquefaction, gas supply and LNG marketing

- 1 North America's top holder of interstate firm transportation pipeline capacity
- 2 Second largest LNG operator by 2019
- 3 Top charterer of LNG vessels in 2018
- 4 Cheniere exported approximately 5.4 Bcf/d from its facilities in 2020. Since startup exports were equivalent to ~3.7 Tcf

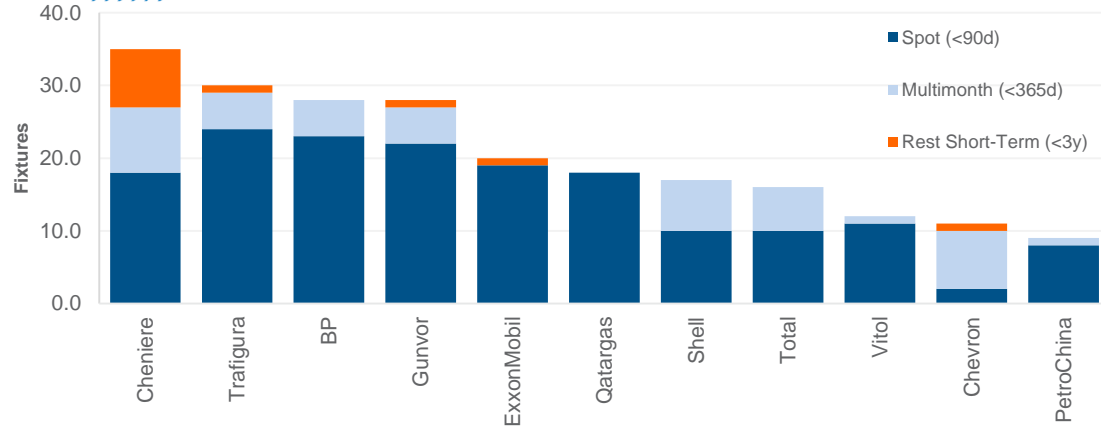
### 2 Became World's Second Largest LNG Operator by 2019<sup>1</sup>



### 1 Contracted Firm Transportation Capacity on Interstate Pipelines<sup>2</sup>



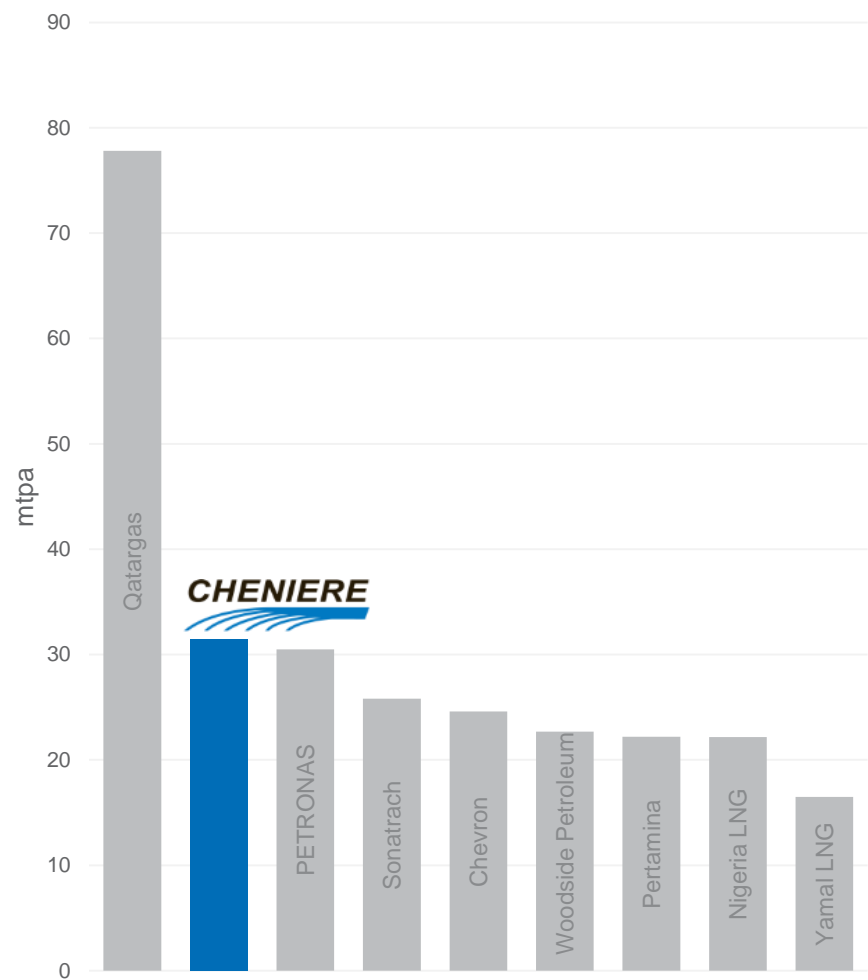
### 3 Cheniere is Among the Largest Charterers of LNG Vessels Top Charters 2018 (Short-term Fixtures)<sup>3</sup>



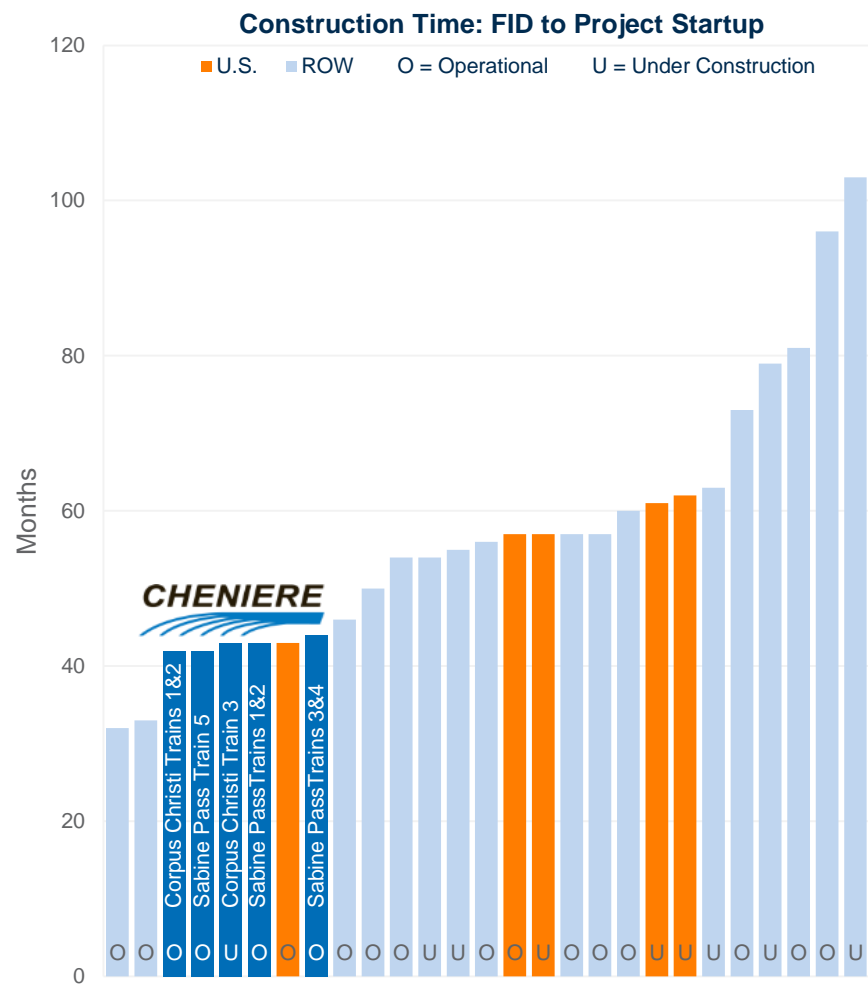
Note: 1. Cheniere interpretation of Wood Mackenzie data (Q4 2018). 2. Ranking shown at parent entity level based on Cheniere's interpretation of Index of Customer data as of January 2020. 3. Fearnleys

# Cheniere – the Premier U.S. LNG Export Company

Cheniere became the world’s second largest LNG operator in 2019



Pack-leading speed to market: Cheniere trains brought online in 42-44 months

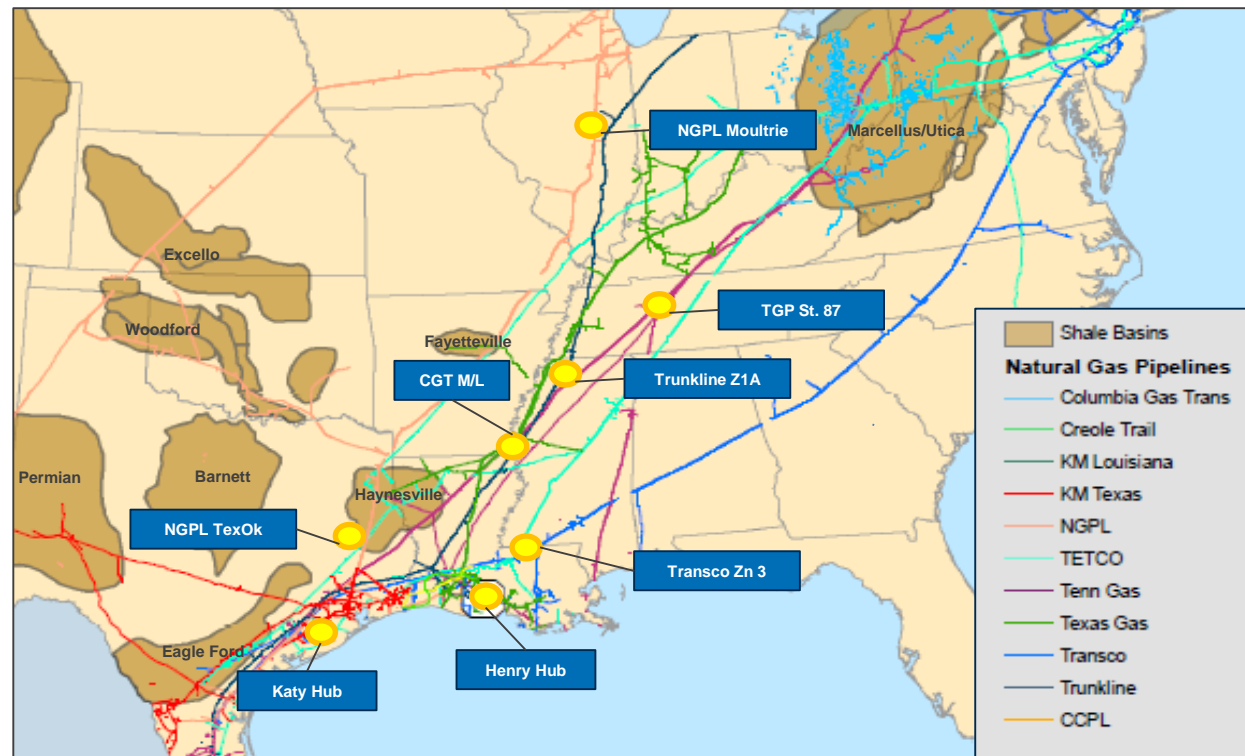


Source: Cheniere interpretation of Wood Mackenzie data (Q2 2019 ; only companies included in the Corporate Service). Excludes Sabine Pass Train 6, currently under construction.

# Cheniere's Upstream Supply Portfolio

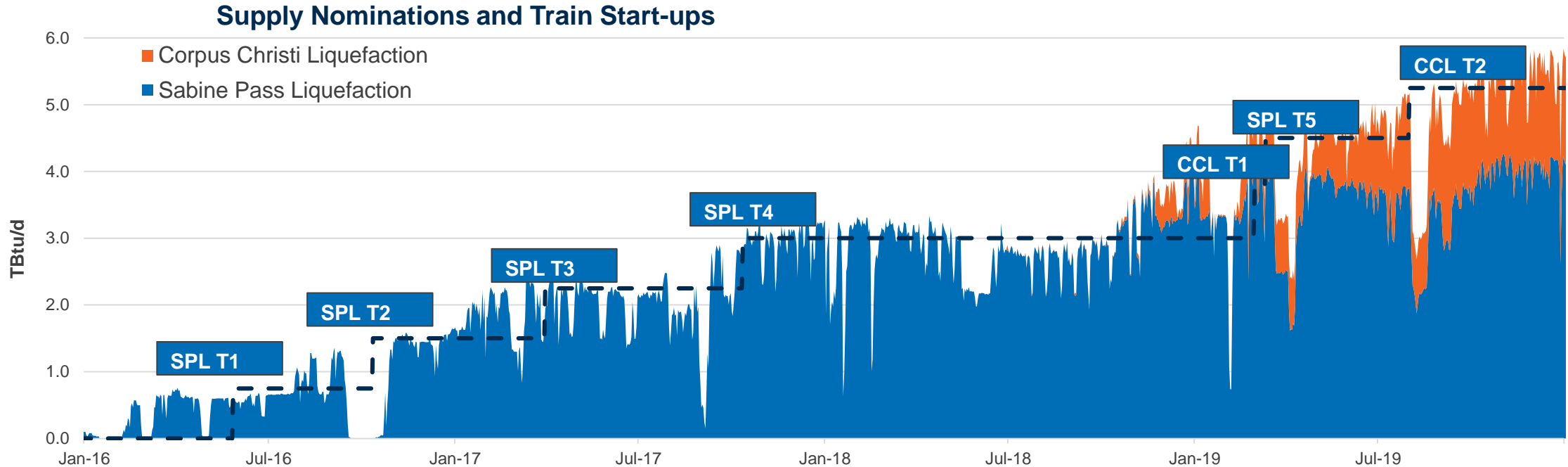
## Accesses a number of major US supply points

- Provides ~6.5 TBtu/day of firm delivery rights to Cheniere's liquefaction assets
- Facilitates physical trading presence at a number of hubs including Henry Hub, NGPL Texok, Transco Zone 3, Katy, Houston Ship Channel, Marcellus, Scoop/Stack, Permian
- Cheniere transport portfolio can supply >50% of current feedgas needs from points outside of Texas, Louisiana
- Portfolio includes ~15 TBtu of firm Gulf Coast storage capacity with respective injection/withdrawal rights of 0.9/0.5 TBtu/day



# Cheniere Gas Supply Operations through 2019

## Sabine Pass and Corpus Christi Liquefaction Supply Nominations



- **Delivered over 3,700 TBtu** of feed gas to Sabine Pass and Corpus Christi
- **Successfully commissioned 7 trains** and associated upstream infrastructure
- Management of intra-month/intra-day volume variance and price exposure requires a fully staffed trade floor in-tune with plant operations able to adhere to 5 standard FERC nomination cycles
- Annual pipeline demand charges expected to reach **~\$500 million in 2020**
- Conduct business with **~185 counterparties** on **~28 different facilities**

# Agenda

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1 LNG Demand

2 LNG Supply

3 Pricing

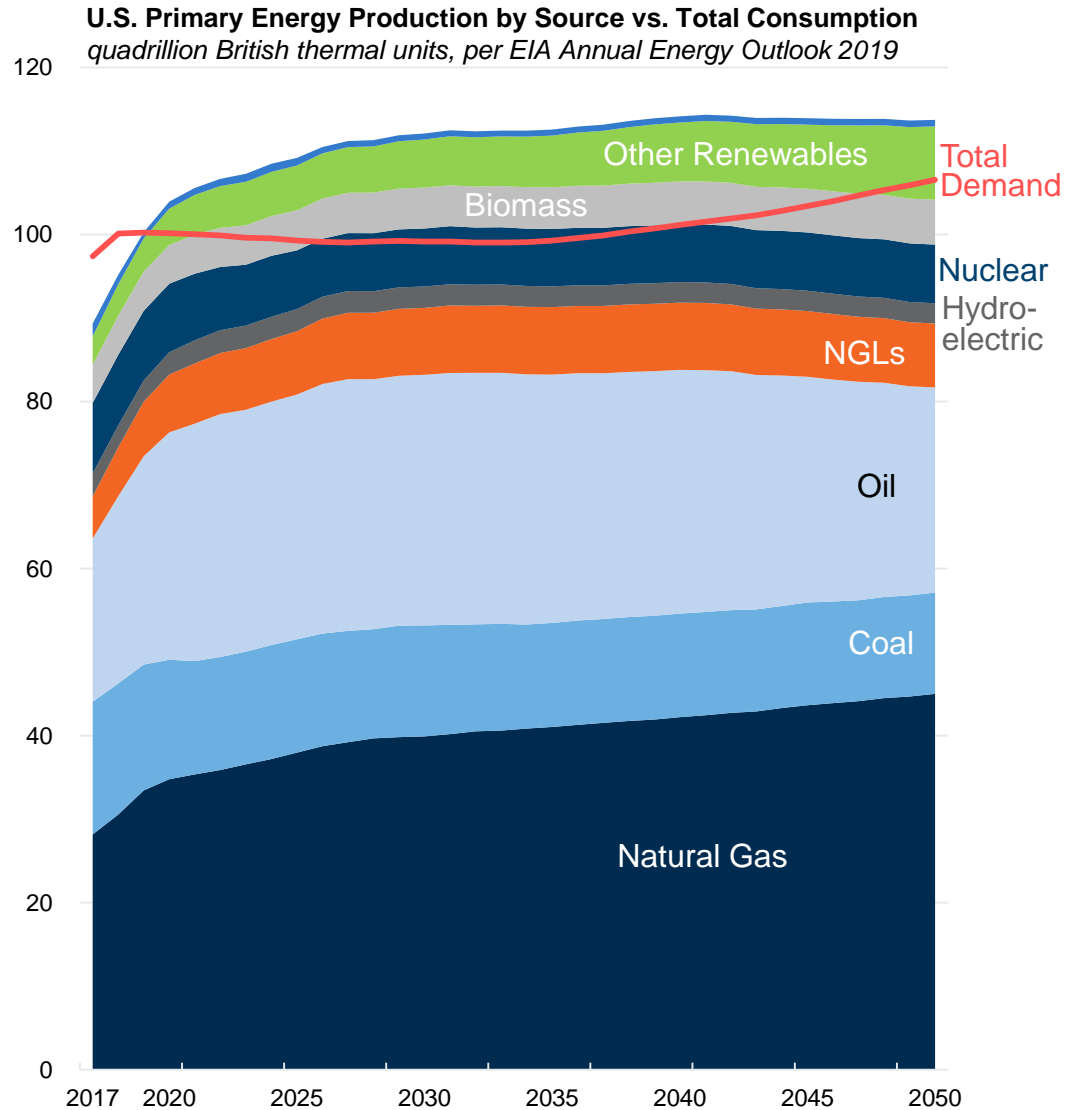
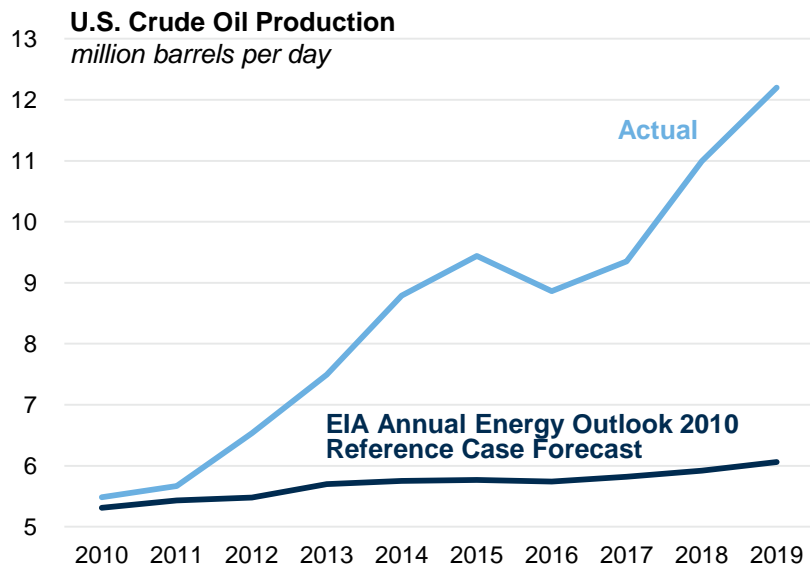
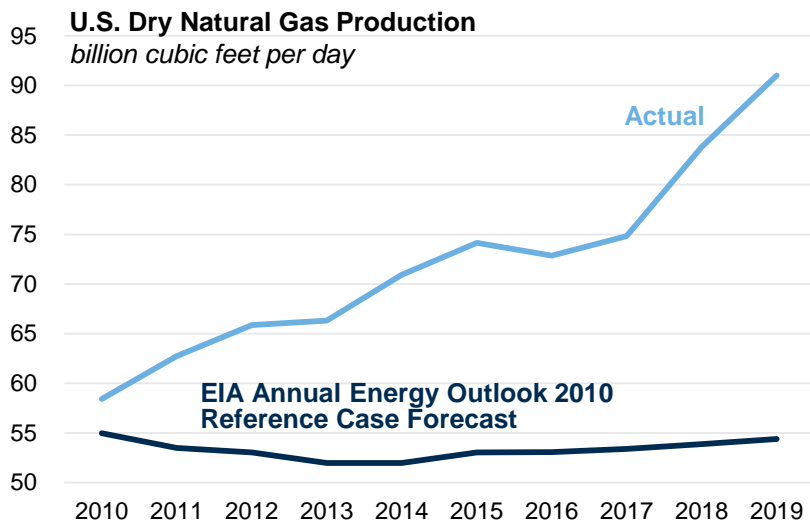
4 U.S. LNG and Cheniere

**5 U.S. Fundamentals**

6 Integrated Production Marketing (“IPM”)

# Dramatic (and unanticipated) growth in US oil and gas production has propelled the U.S. to become a net energy exporter

This dynamic will drive the future of the US oil and gas industry

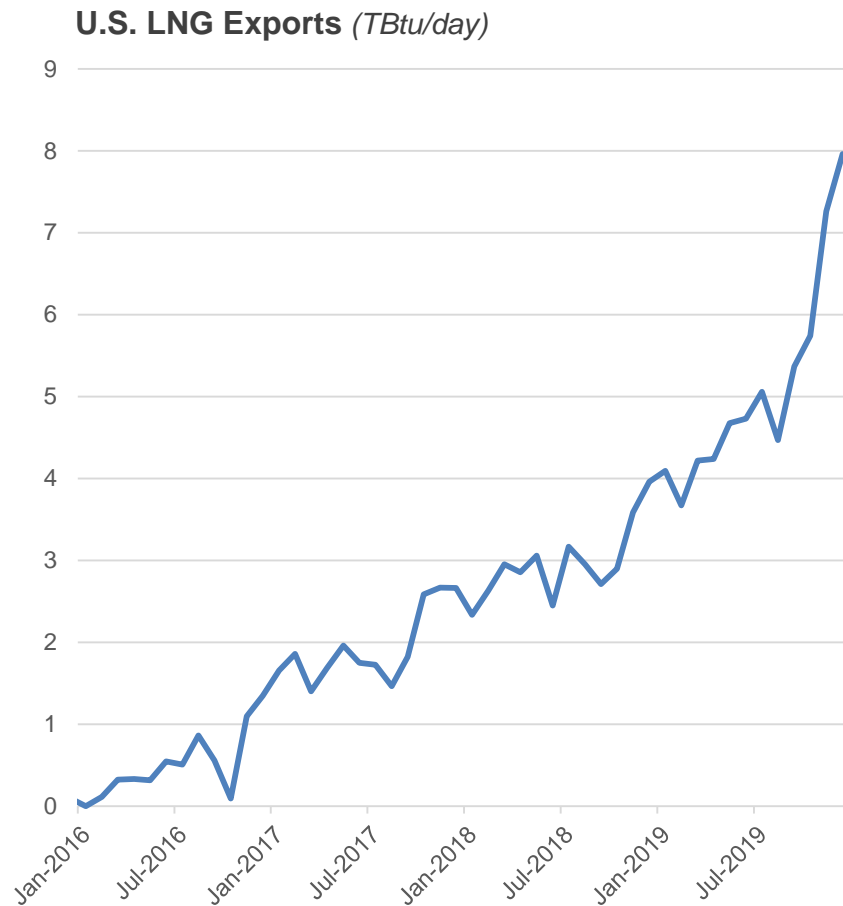




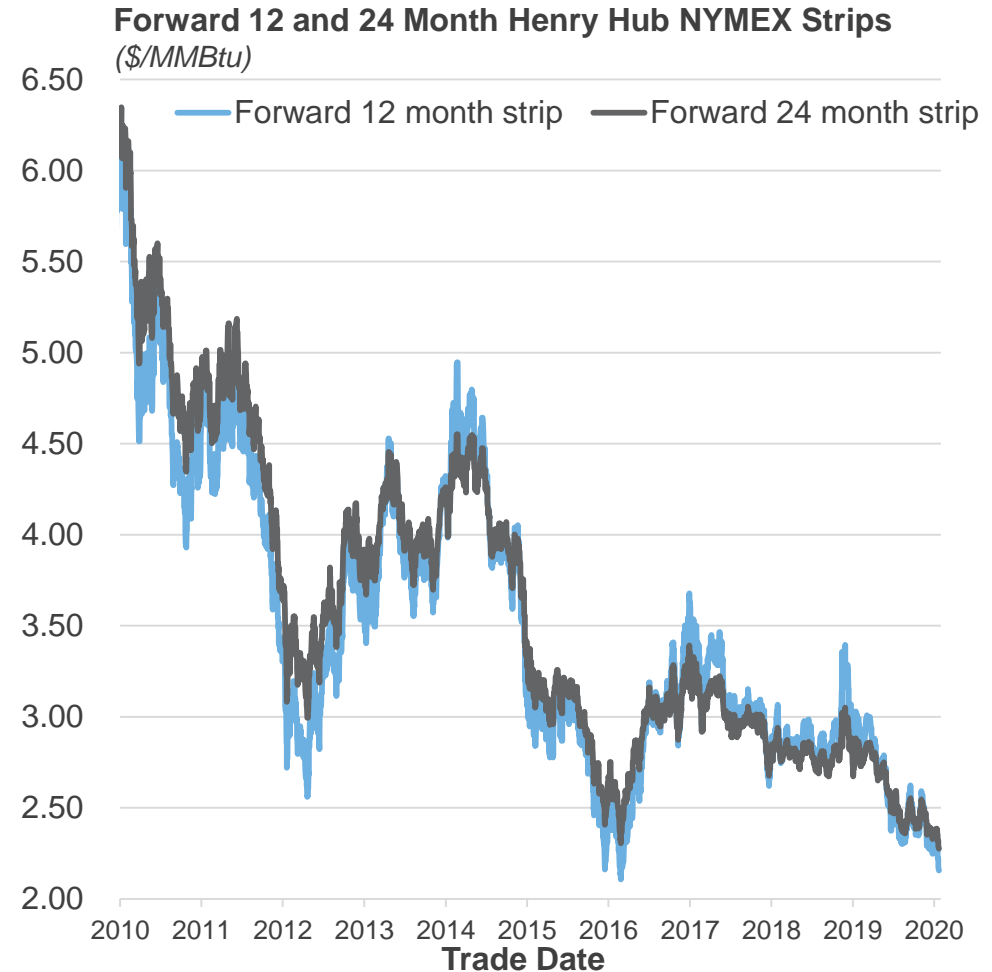
# U.S. LNG exports have grown to ~9 Bcf/d over the past five years

Export expansion has been well-met by supply growth

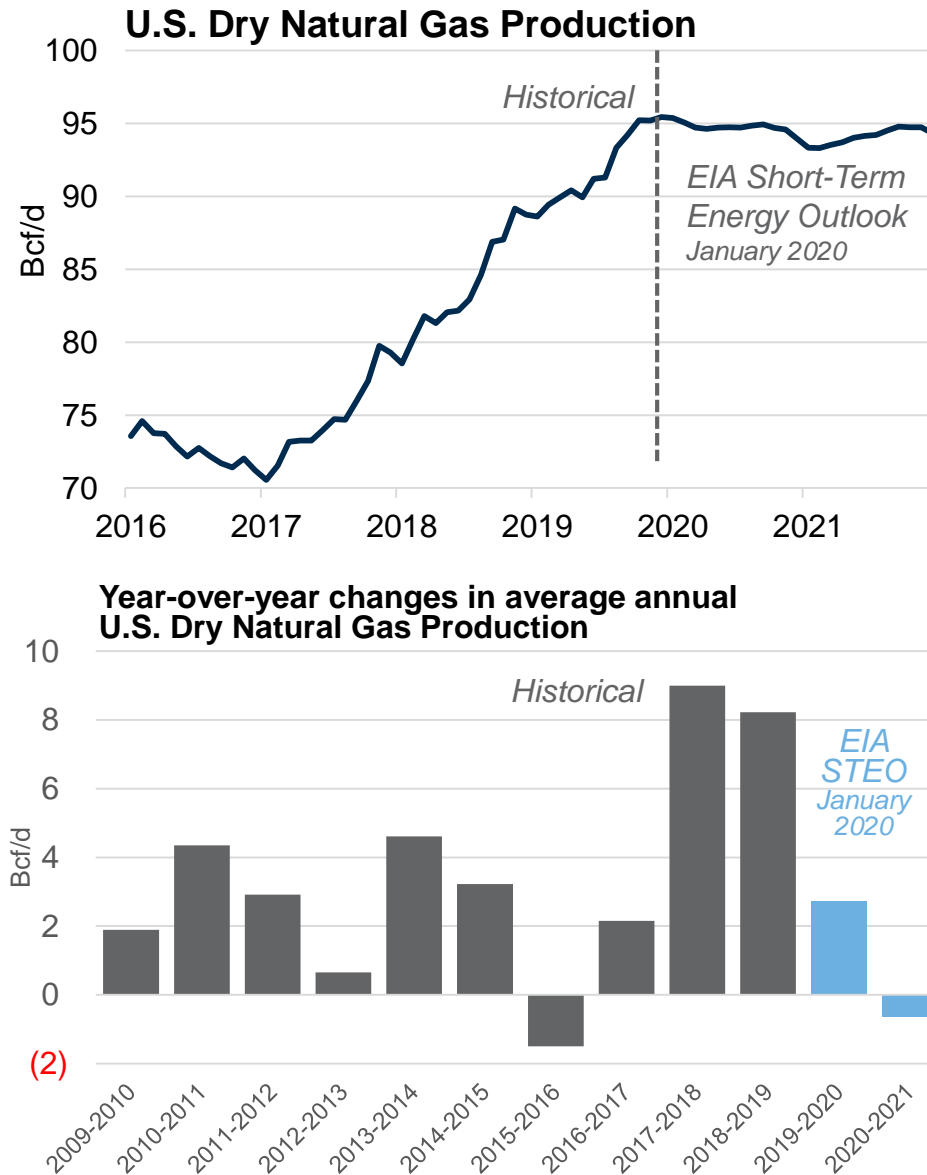
- Forward Henry Hub pricing now trades near all-time lows even as demand from U.S. LNG export terminals comprises nearly 10% of U.S. production



Source: Energy Information Administration and Cheniere Estimates



# Deterioration of gas-directed drilling economics and call for producer capital discipline are expected to result in slowing U.S. gas production



- **EIA STEO anticipates ~1.5 Bcf/d decline in U.S. production by the close of 2020**
  - Supported by public guidance for 2020 capex, production released by Northeast producers
- **Forecast stands in contrast to record YoY growth in 2018 and 2019**
- **Substantial Permian gas production growth is not expected to resume until 2021 with the in-service of additional gas pipeline takeaway capacity**

# Agenda

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1 LNG Demand

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3 Pricing

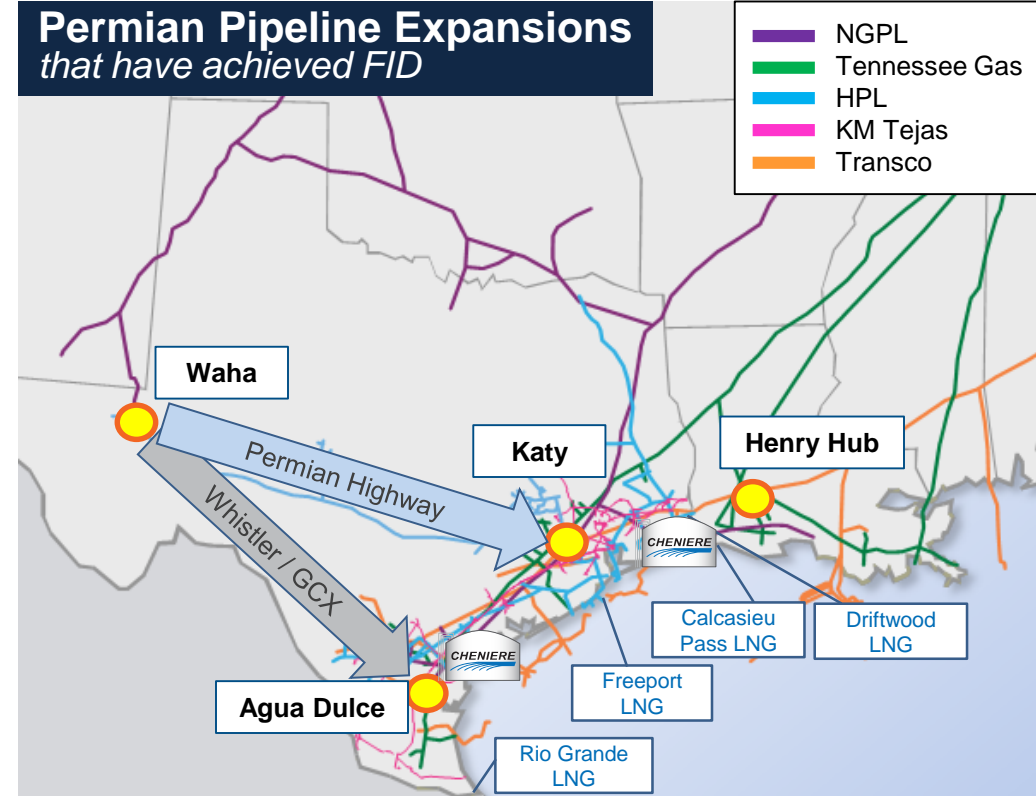
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5 U.S. Fundamentals

**6 Integrated Production Marketing (“IPM”)**

# Large-Scale Pipeline Expansions Will Bring Incremental Permian Natural Gas Production to Gulf Coast Markets

- 6 Bcf/d of pipeline capacity to Southeast Texas has reached FID and will enter service in late 2019, 2020, 2021
- CCL Stage III advantaged by proximity to Permian supply



Pipeline Project	Capacity (Bcf/d)	Target In-service
Gulf Coast Express (GCX)	2.0	4Q 2019
Permian Highway (PHP)	2.0	4Q 2020
Whistler	2.0	3Q 2021

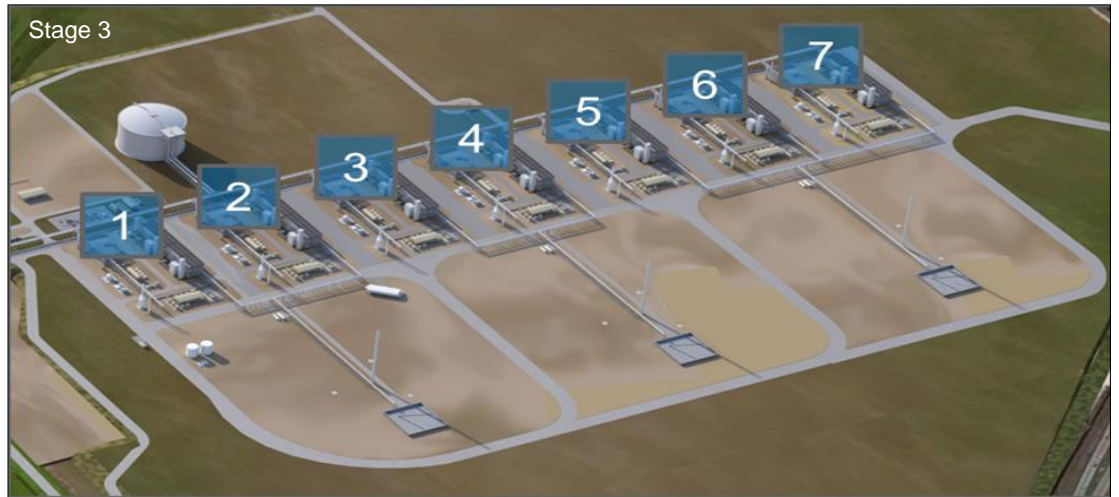
# Corpus Christi Stage 3

## Corpus Christi Stage 3 (~9.5 mtpa)

- Seven ~1.4 mtpa mid-scale liquefaction trains, one 160,000m<sup>3</sup> LNG storage tank
- Stage 3 to share significant infrastructure from Stages 1 & 2
- FERC Environmental Assessment received 1Q 2019
  - FERC approval received 4Q 2019
- Final Investment Decision (FID) targeted in 2020

## Future Developmental Potential in Corpus Christi

- Cheniere's significant land position provides opportunity for further liquefaction capacity expansion
- Advantaged location with proximity to pipeline infrastructure development and natural gas resources



**Leveraging shared infrastructure to deliver world-class, cost competitive LNG growth platform**



Thank You!







# Cheniere's Substantial Asset Platform

## Sabine Pass Liquefaction Project (Louisiana)

T1-6 = 27 mtpa<sup>1</sup> Liquefaction Capacity



- First operational export facility in U.S. Lower-48
- Trains 1-5 operating, contracts with long-term buyers commenced
- Train 6 under construction, estimated completion 1H 2023

## Corpus Christi Liquefaction Project (Texas)

T1-3 = 13.5 mtpa<sup>1</sup> Liquefaction Capacity



- First greenfield LNG export facility in U.S. Lower-48
- Train 1 operating, contracts with long-term buyers commenced
- Train 2 reached substantial completion in August 2019
- Train 3 under construction, estimated completion 2H 2021
- Filed FERC application for ~9.5 mtpa liquefaction expansion, Environmental Assessment received
- Land position enables significant further liquefaction capacity expansion

**Building an industry-leading LNG export platform along the U.S. Gulf Coast**

*Note: (1) Each Train is expected to have a nominal production capacity, prior to adjusting for planned maintenance, production reliability, potential overdesign, and debottlenecking opportunities, of approximately 4.5 mtpa of LNG and an average adjusted nominal production capacity of approximately 4.7-5.0 mtpa of LNG on a run rate basis*



# Cheniere's Long-term Customers

19 long-term customers



- Wide variety of customers including national oil companies, international oil companies, trading houses, and utilities
- Wide variety of home markets, primarily in Europe and Asia
- 8.3 mtpa in long-term LNG contracts signed with new customers by Cheniere entities since early 2018
- Including three long-term DES contracts supported by Cheniere's growing shipping capability (over 30 LNG vessels under charter in 2018)
- Contract structures being designed in response to customer needs