



# LNG trade: more flexible than spot statistics indicate

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Operating costs are defined as underlying operating expenses, which are operating expenses less identified items. Organic free cash flow is defined as free cash flow excluding inorganic capital investment and divestment proceeds. Clean CCS ROACE (Return on Average Capital Employed) is defined as defined as the sum of CCS earnings attributable to shareholders excluding identified items for the current and previous three quarters, as a percentage of the average capital employed for the same period. Capital employed consists of total equity, current debt and non-current debt. Capital investment comprises capital expenditure, exploration expense excluding well write-offs, new investments in joint ventures and associates, new finance leases and investments in Integrated Gas, Upstream and Downstream securities, all of which on an accruals basis. In 2016, the capital investment was impacted by the acquisition of BG Group plc. which are included in “Change in non-controlling interest” within “Cash flow from financing (CFFF) activities”. Divestments comprises proceeds from sale of property, plant and equipment and businesses, joint ventures and associates, and other Integrated Gas, Upstream and Downstream investments, reported in “Cash flow from investing activities (CFFI)”, adjusted onto an accruals basis and for any share consideration received or contingent consideration recognised upon divestment, as well as proceeds from the sale of interests in entities while retaining control (for example, proceeds from sale of interest in Shell Midstream Partners, L.P.). This presentation contains the following forward-looking Non-GAAP measures: Organic Free Cash Flow, Free Cash Flow, Capital Investment, CCS Earnings, CCS Earnings less identified items, Gearing, Underlying Operating Expenses, ROACE, Capital Employed and Divestments. We are unable to provide a reconciliation of the above forward-looking Non-GAAP measures to the most comparable GAAP financial measures because certain information needed to reconcile the above Non-GAAP measure to the most comparable GAAP financial measure is dependent on future events some which are outside the control of the company, such as oil and gas prices, interest rates and exchange rates. Moreover, estimating such GAAP measures consistent with the company accounting policies and the required precision necessary to provide a meaningful reconciliation is extremely difficult and could not be accomplished without unreasonable effort. Non-GAAP measures in respect of future periods which cannot be reconciled to the most comparable GAAP financial measure are calculated in a manner which is consistent with the accounting policies applied in Royal Dutch Shell plc’s financial statements. The financial measures provided by strategic themes represent a notional allocation of ROACE, capital employed, capital investment, free cash flow, organic free cash flow and underlying operating expenses of Shell’s strategic themes. Shell’s segment reporting under IFRS 8 remains Integrated Gas, Upstream, Downstream and Corporate.

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# LNG PROVIDES NEW FORM OF ENERGY SECURITY



Queensland Curtis LNG Facility, Australia

## 01

### • LNG RESILIENT TO ITS OWN UNCERTAINTIES

- Geopolitics
- Timing of new supply and demand
- Existing plant output
- Changing trade patterns

## 02

### • LNG SOLVES GAS MARKET VARIABILITY

- Domestic market uncertainty
- Nuclear reliability
- Renewable intermittency
- Weather disruptions

## 03

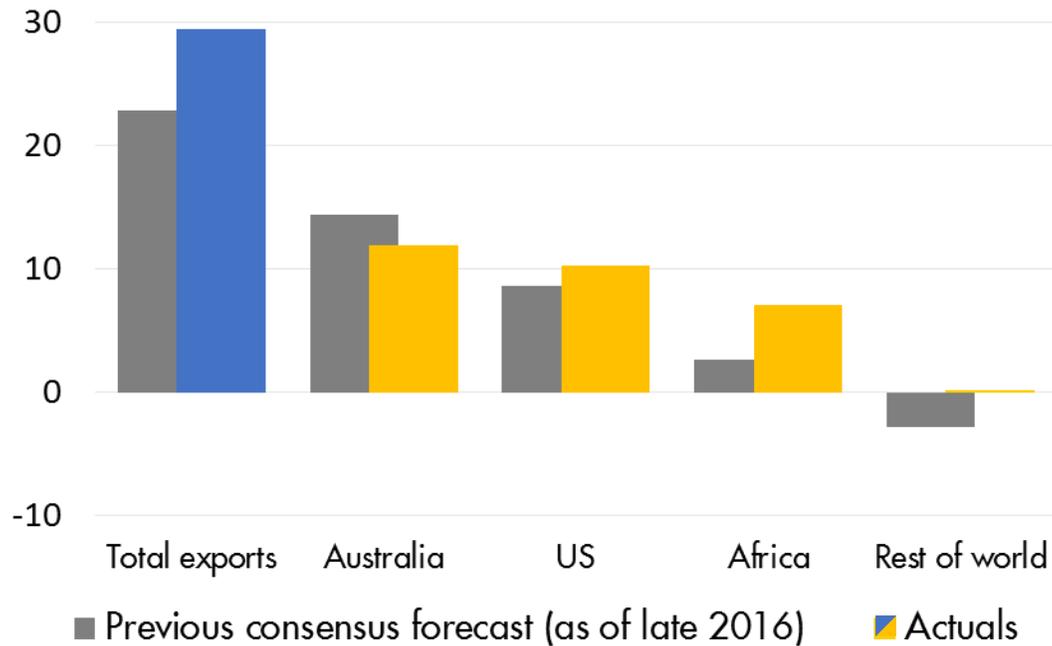
### • ENABLERS OF LNG MARKET FLEXIBILITY

- Growing shipping fleet
- Rise of market intermediaries
- Floating regasification
- Physical + financial liquidity

# LNG RESILIENT TO MARKET SHOCKS, CHANGING TRADE

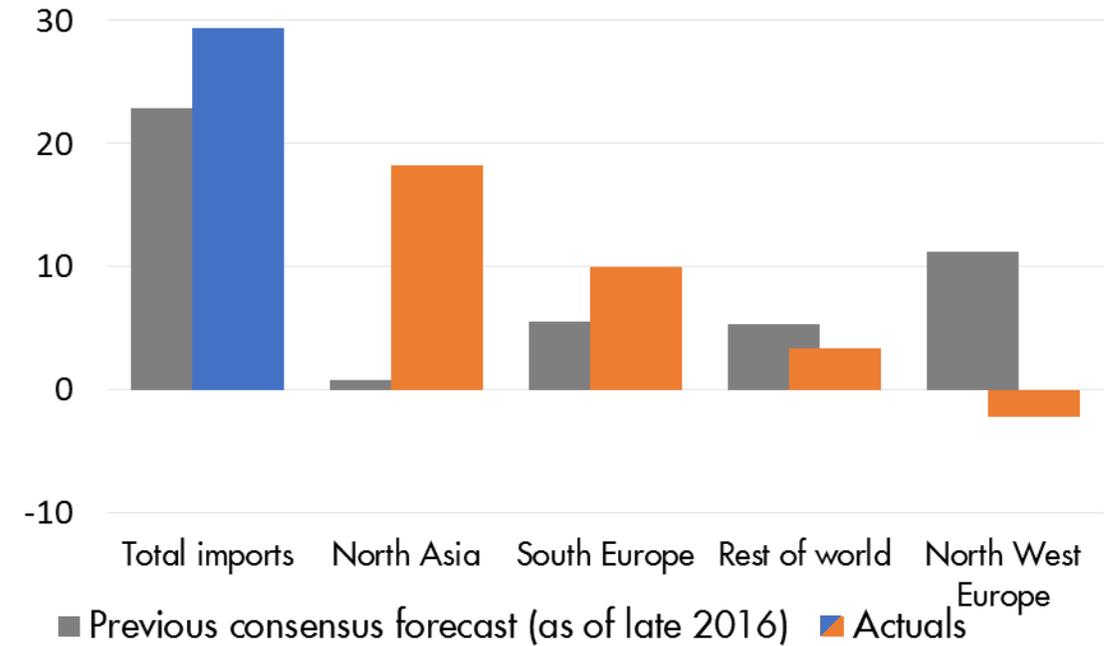
**Net exports: 2017 YoY**

Million tonnes (DES)



**Net imports: 2017 YoY**

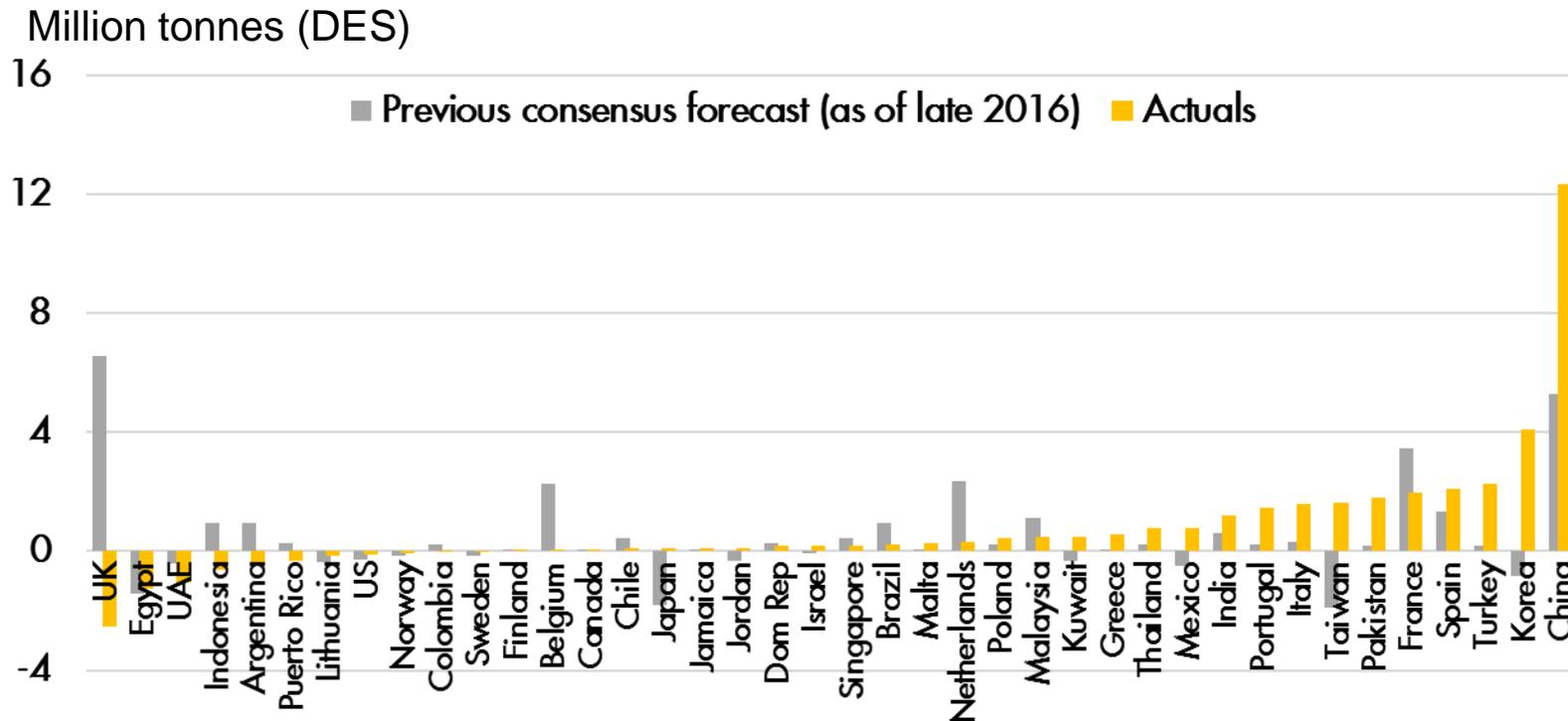
Million tonnes (DES)



Source: Shell interpretation of IHS Markit, Wood Mackenzie and Poten & Partners 2016 and Q4 2017 data

# 2017 LNG IMPORT GROWTH DRIVEN BY DOMESTIC GAS DEMAND

Net LNG imports: 2017 YoY



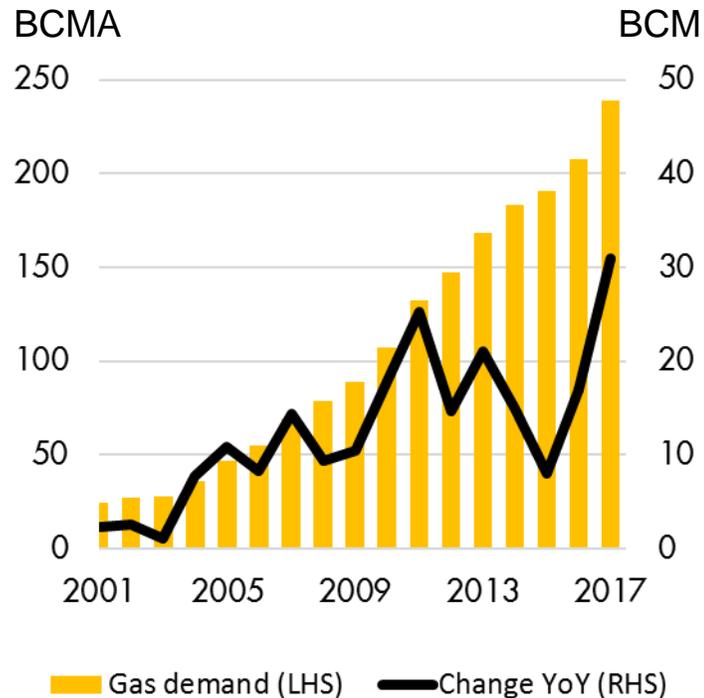
## 2017 LNG Import Drivers

- Supportive gas policy
- Falling nuclear reliability
- Weak hydroelectric output
- Weather-driven seasonality

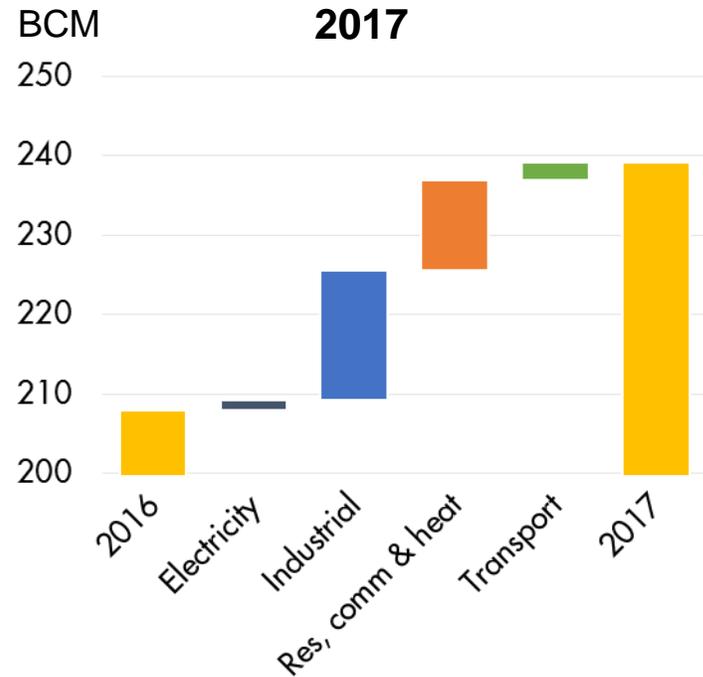
Source: Shell interpretation of IHS Markit, Wood Mackenzie and Poten & Partners data 2016 and Q4 2017

# STRONG POLICY-DRIVEN GAS DEMAND IN CHINA MET BY LNG

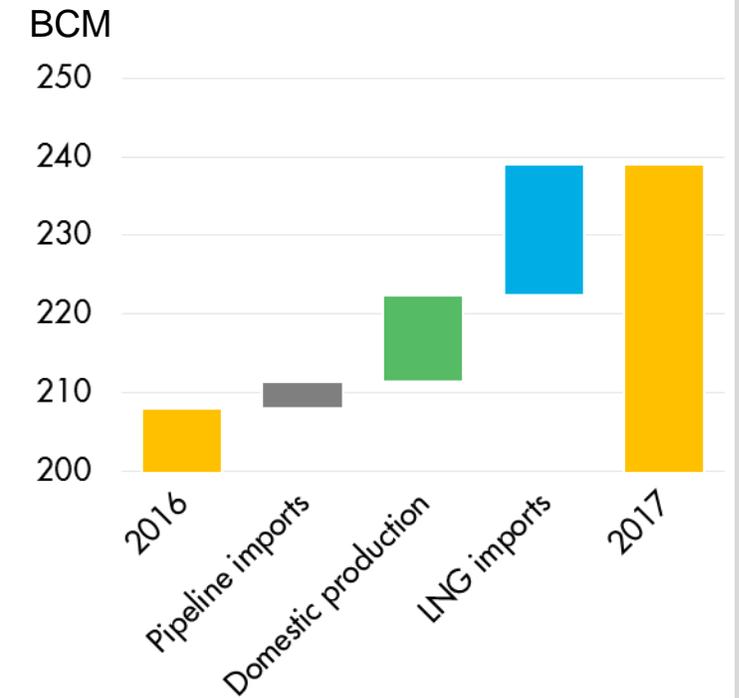
**China gas demand up 15%, 2017**



**China demand growth by sector, 2017**



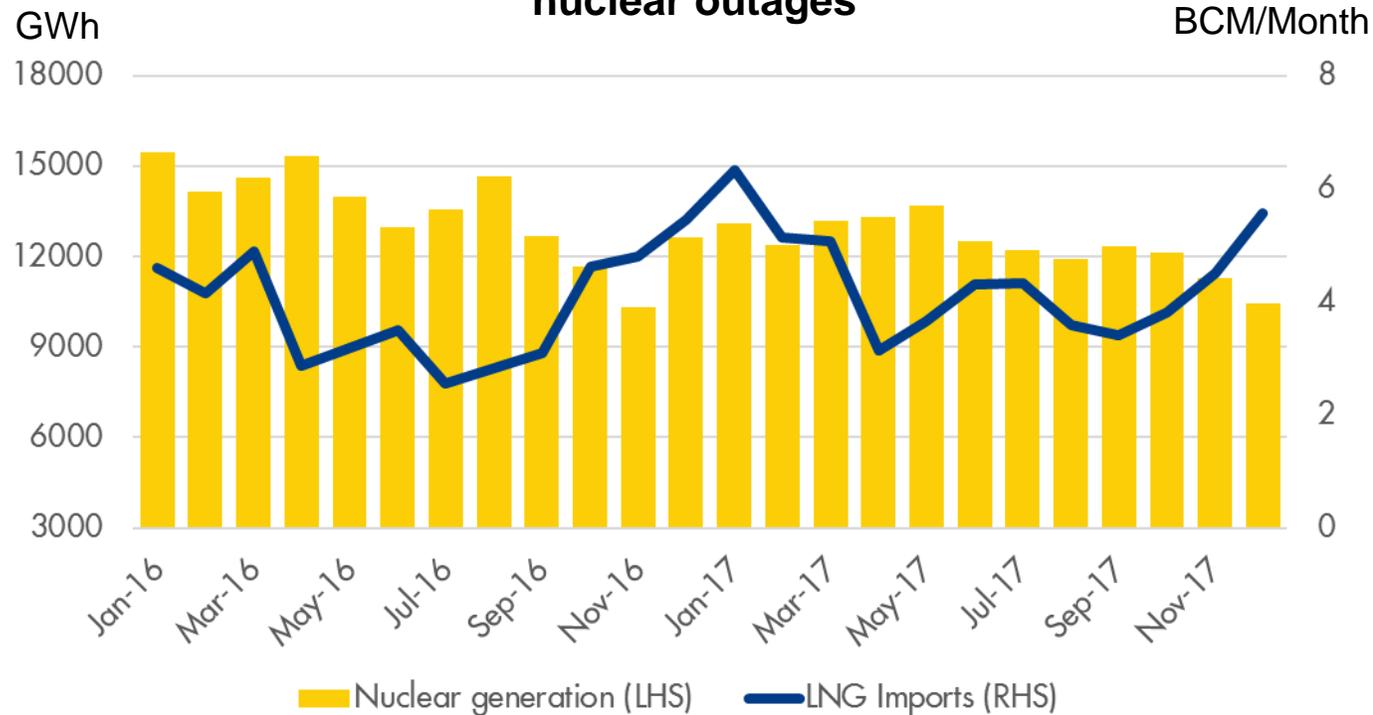
**LNG >50% of supply growth, 2017**



Source: Shell interpretation of IHS Markit, China National Bureau of Statistics and Chinese customs data; latest estimates for 2017

# LNG BACKFILLS UNRELIABLE NUCLEAR PRODUCTION

**LNG supports South Korean power generation during unexpected nuclear outages**



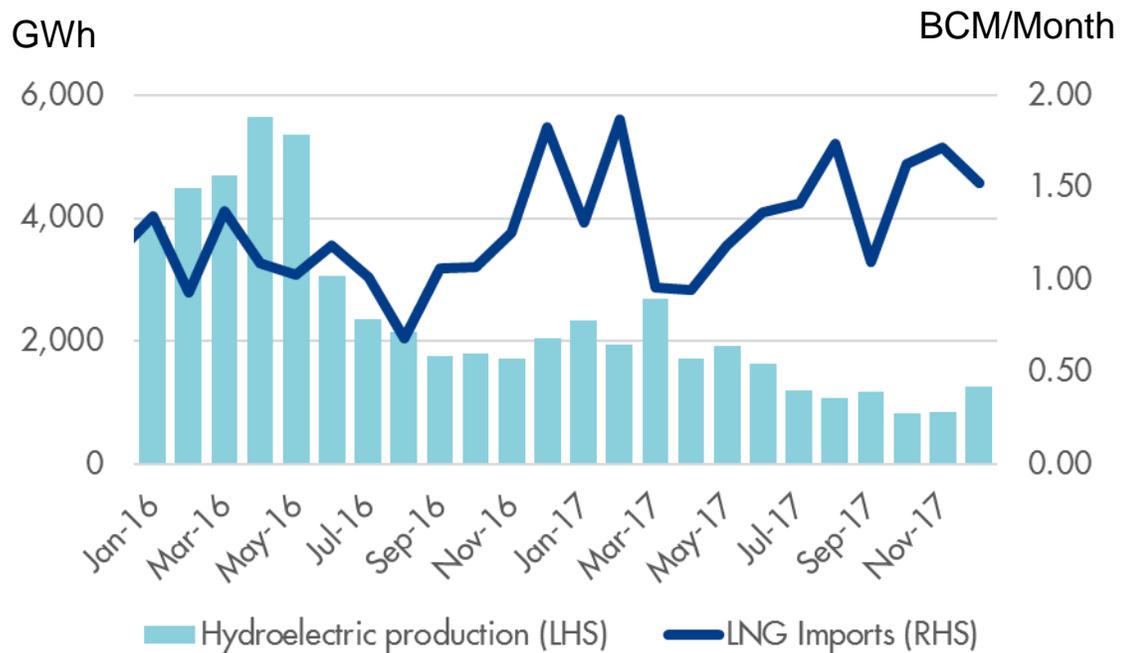
## LNG SUPPLEMENTED LOST NUCLEAR OUTPUT IN...

- South Korea
- France
- Taiwan
- Japan

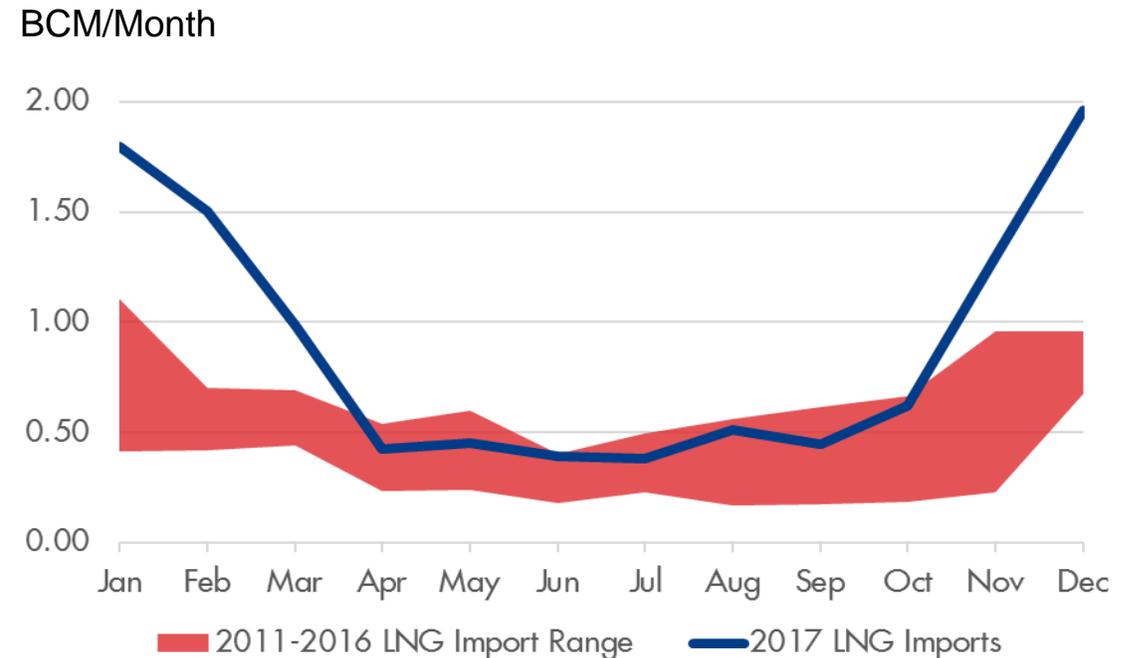
Source: Shell Interpretation of IHS Markit data

# LNG RESPONDS TO RENEWABLES, WEATHER VARIABILITY

**LNG reliably responds to low hydro generation in Spain**



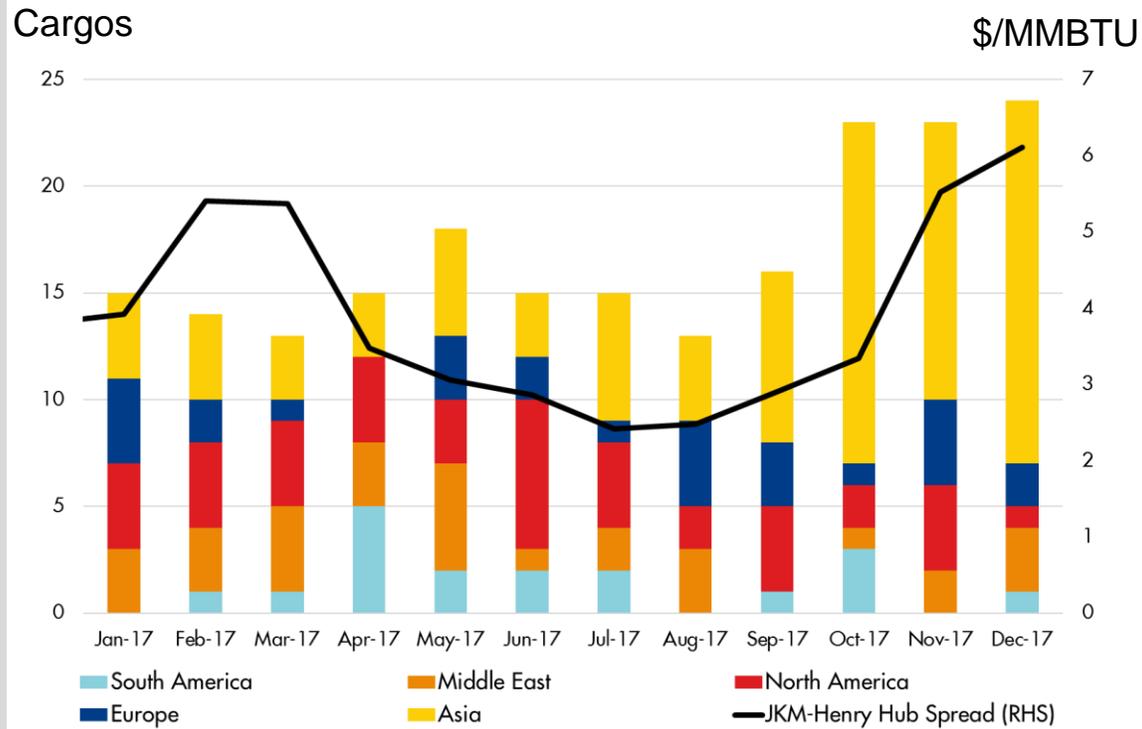
**Turkey turns to weather-responsive LNG during peaking winter demand**



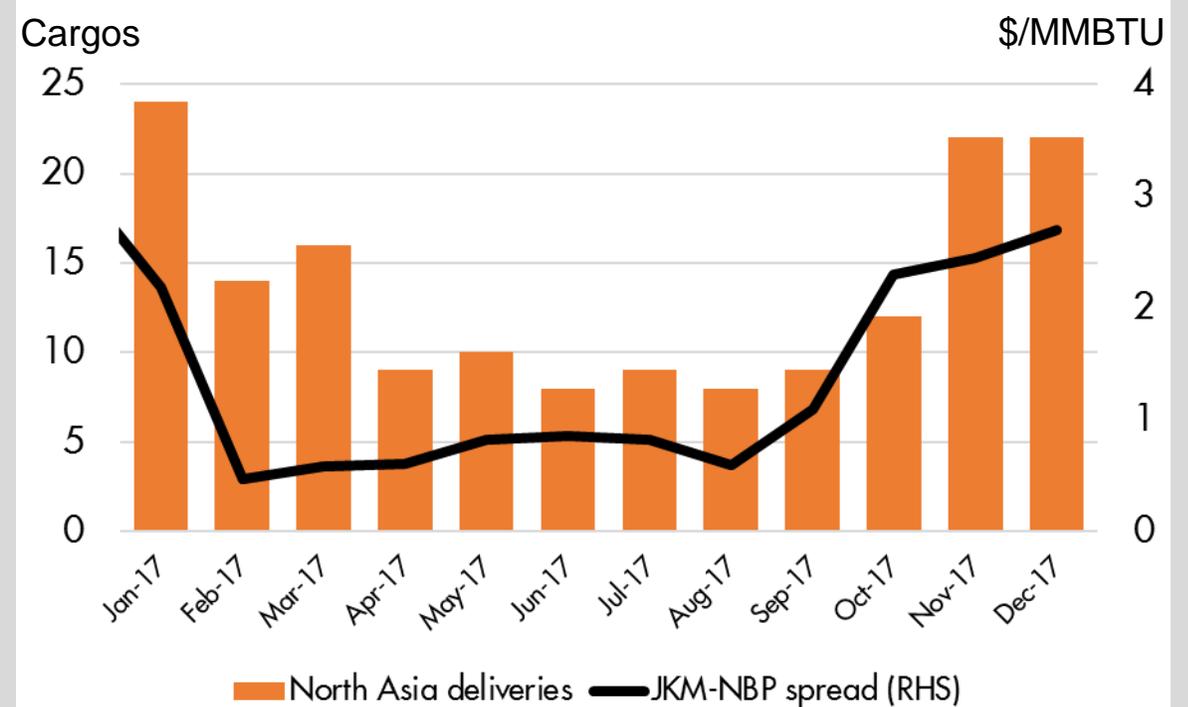
Source: Shell interpretation of Wood Mackenzie Q4 2017 and IHS Markit data

# LNG SUPPLY IS RESPONDING TO PRICE SIGNALS

**U.S. LNG deliveries by region**



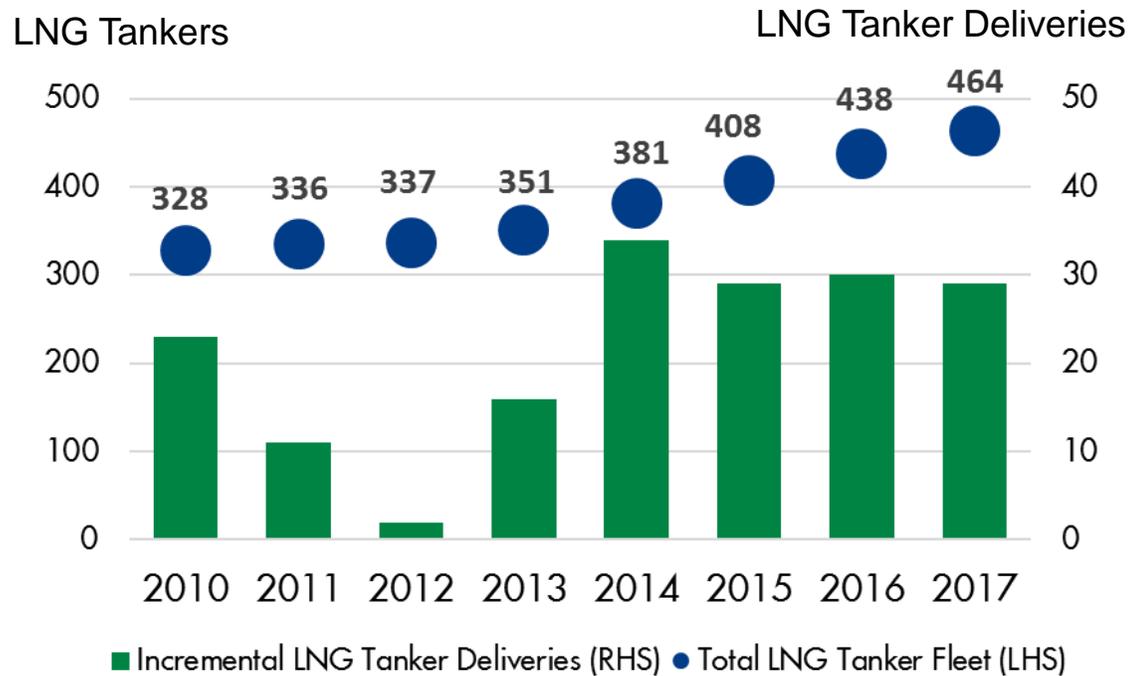
**Atlantic Basin deliveries into North Asia**



Source: Shell interpretation of IHS Markit Q4 2017, S&P Global Platts, ICE data and Wood Mackenzie Q4 2017 data, U.S. Department of Energy customs data

# LNG FLEXIBILITY FACILITATED BY INCREASED SHIPPING, FSRUs

## Global LNG tanker fleet grew by >120 tankers since 2012

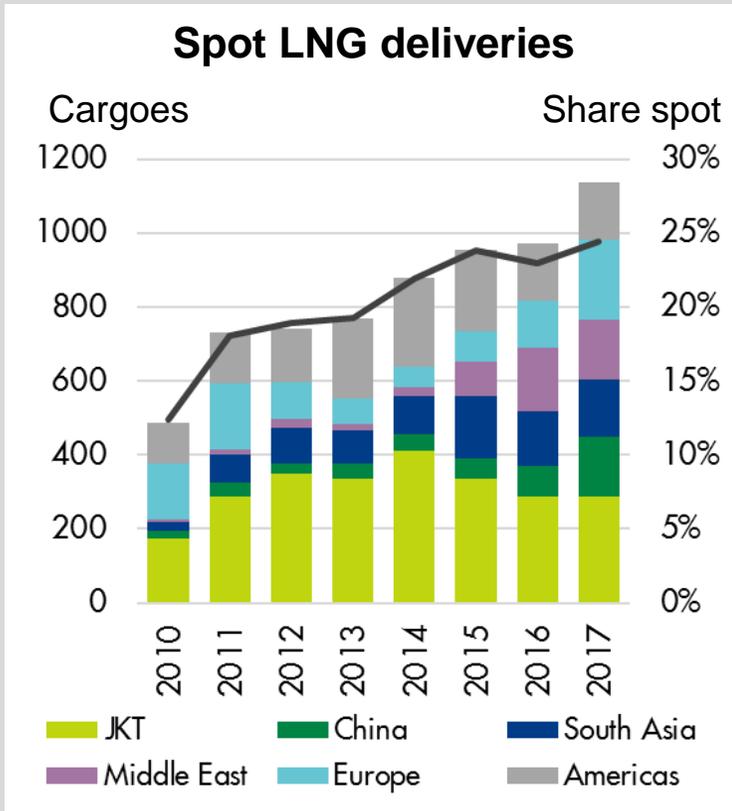


Source: Shell interpretation of IHS Markit data

- New LNG market entrants provide added risk management
- Market intermediaries complement traditional buyer and seller dynamic
- Floating regas terminals unlock latent demand quickly



# SHORT-TERM FLEXIBILITY COMPLEMENTS LONG-TERM CONTRACTS



## CONCLUSIONS:

- LNG resilient to its own uncertainties
- LNG solves gas market variability
- LNG flexibility increasing through multiple enabling factors
- LNG can provide energy security to buyers depending on their needs through long-term contracts and short-term supply

Source: Shell interpretation of IHS Markit Q4 2017

