

## DOCKETED

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# BP in the U.S.



BP U.S. Economic Impact Report 2016

BP supports more than  
**145,000**  
jobs across the U.S.

BP invested  
**\$90 billion**  
in the U.S. from 2006 through 2015\*

BP paid  
**13,000**  
U.S. vendors in 2015

BP invested  
**\$147 million**  
in U.S. community programs (2011-2015)

Safety is our  
**No. 1 priority**

BP employs more than  
**14,000**  
people across the U.S.

BP generated  
**\$80 billion**  
in economic value in the U.S. in 2015

In 2015, BP produced  
**643,000**  
barrels of oil and natural gas equivalent per day in the U.S.



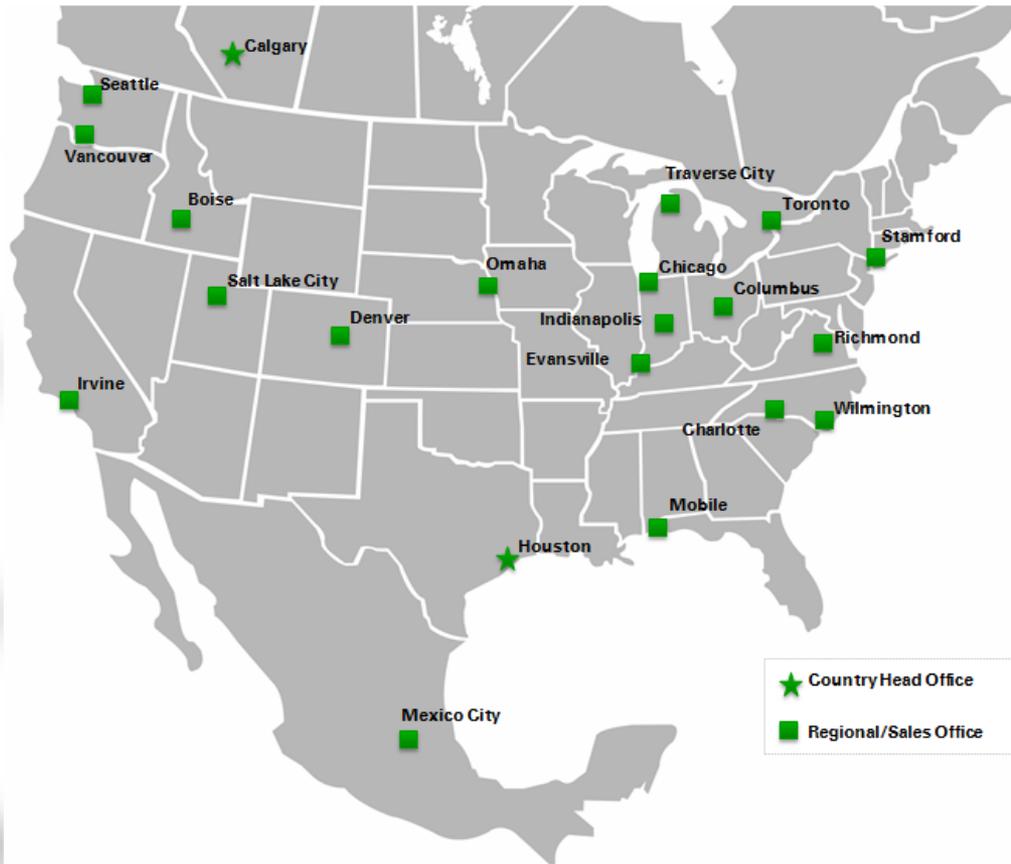
# The leading North American gas marketer

## Expansive Presence

- A full suite of **physical and financial** services from basin to burner tip
- We're active in every major basin, in every corridor, and in every major market.

## Strength in Numbers

- 1st oil and gas major to register as a swap dealer\*
- Approx. 23 bcf/day of physical purchases and sales\*
- About 10 bcf/day firm interstate transport capacity in 2015\*



\*Platts; BP Energy Company is provisionally registered under the US Dodd Frank Act

# Renewable gas solutions for the transportation sector



We are active in RINS & LCFS generation from landfill biogas.

We deliver transport fuels in addition to associated environmental credits, and we optimize value for both buyers and sellers.

We provide credits to customers to meet sustainability initiatives.

- Web of assets to fulfill requirements
- Active at state/federal levels
- Understand regulatory and reporting requirements
- Offer innovative structures
- Strong balance sheet



**300,000+**  
Compliant LCFS  
Credits



**130+ Million**  
Renewable  
Identification  
Numbers (RINS)



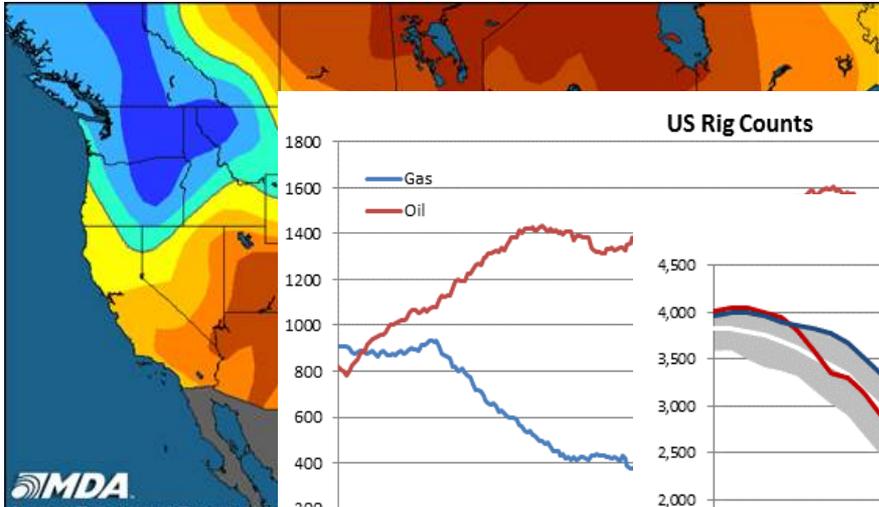
**15** Registered  
Biogas Pathways



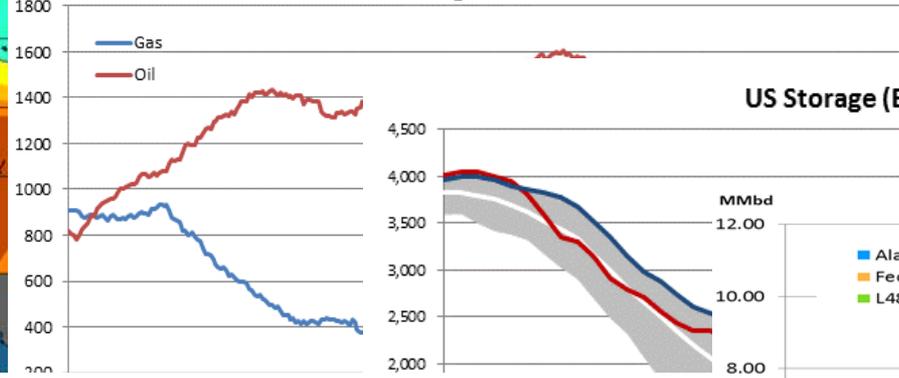
**80+** CNG & LNG  
Fueling Stations



# Many fundamental variables drive North American gas prices...



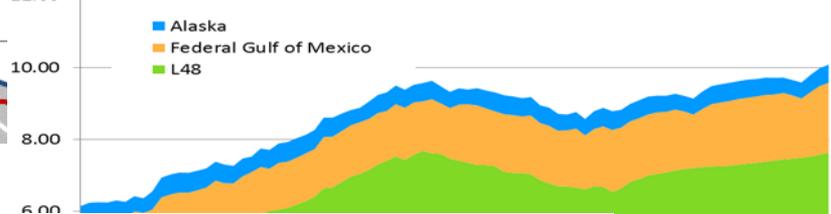
**US Rig Counts**



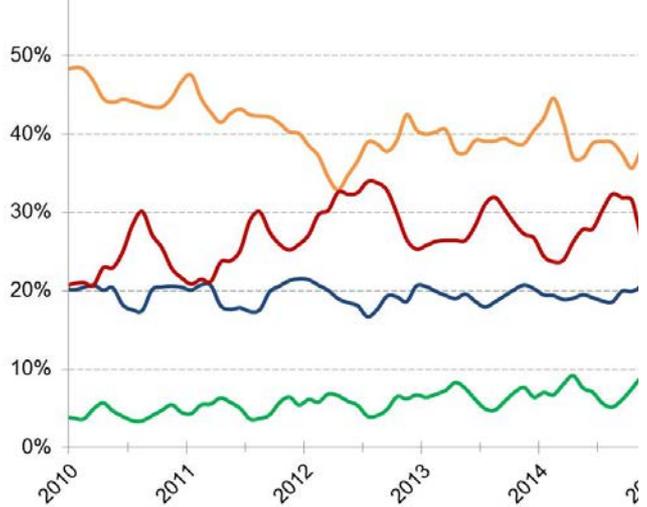
**US Storage (Bcf)**



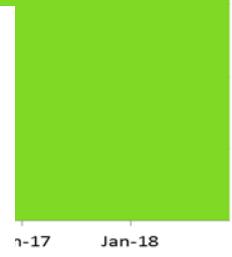
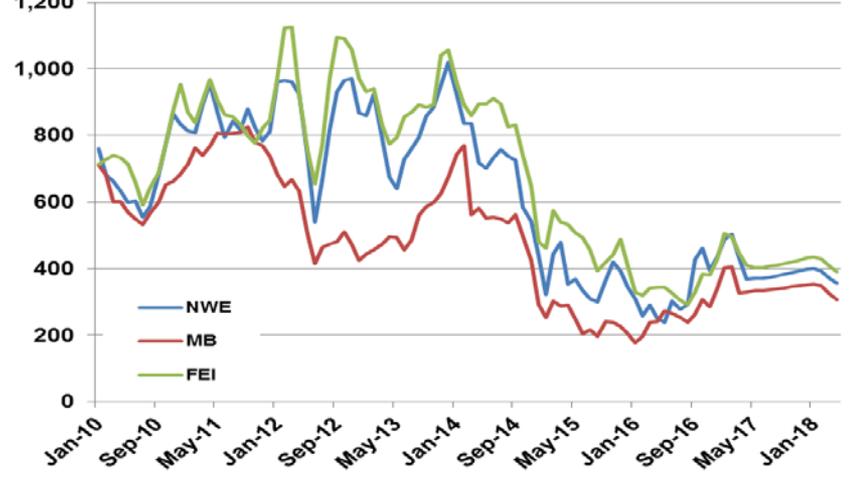
**Oil Production**



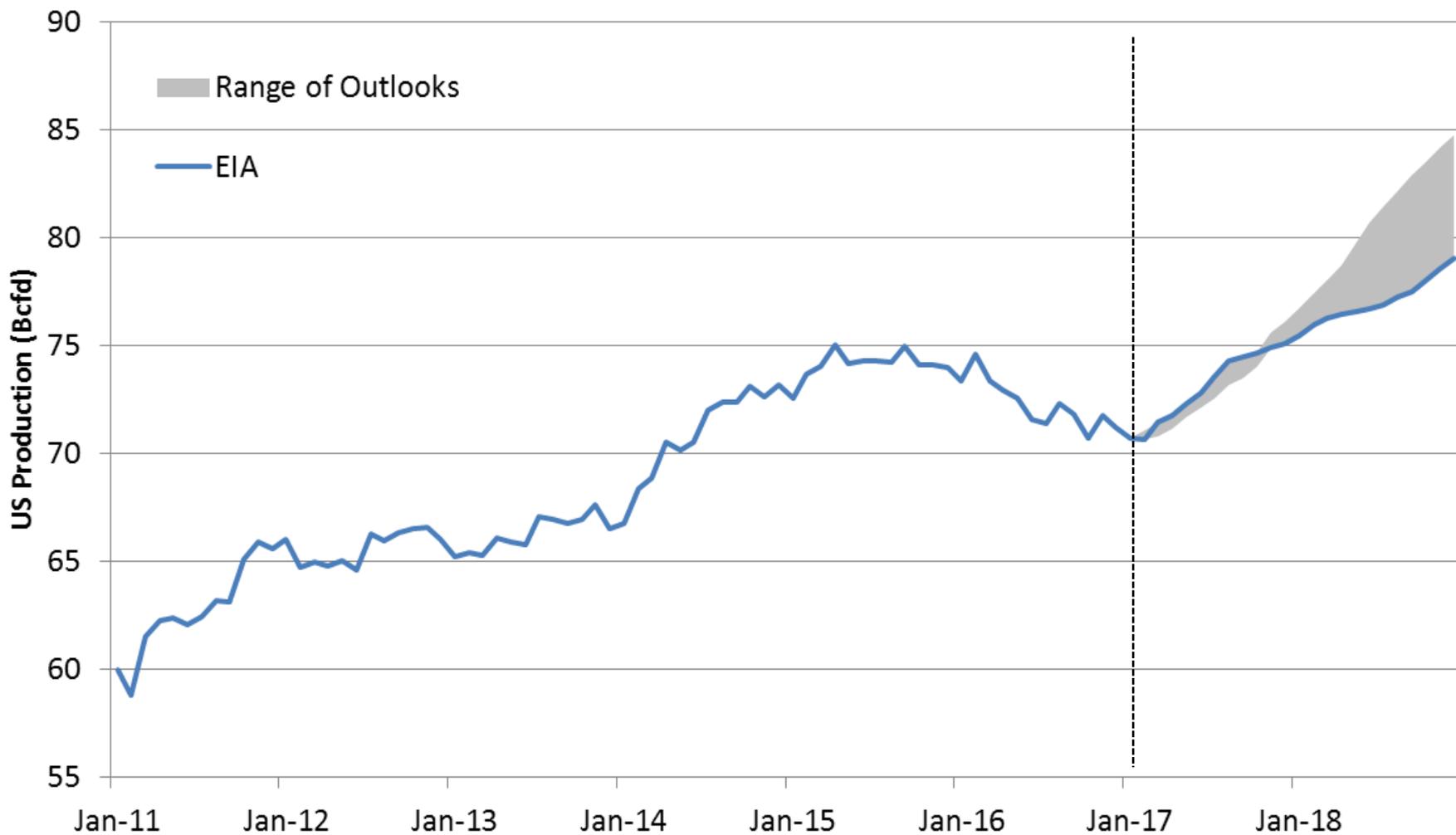
**U.S. Generation by Fuel (%)**



**C3 \$/MT**



# U.S. gas supply: Many in the market are projecting a return to growth

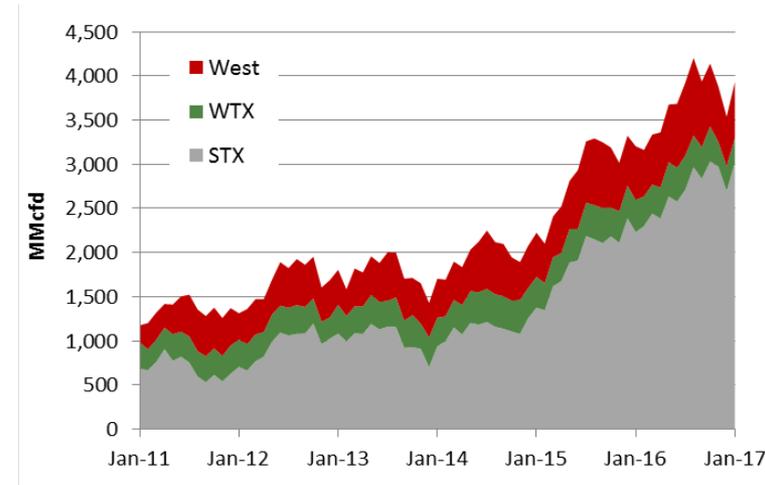
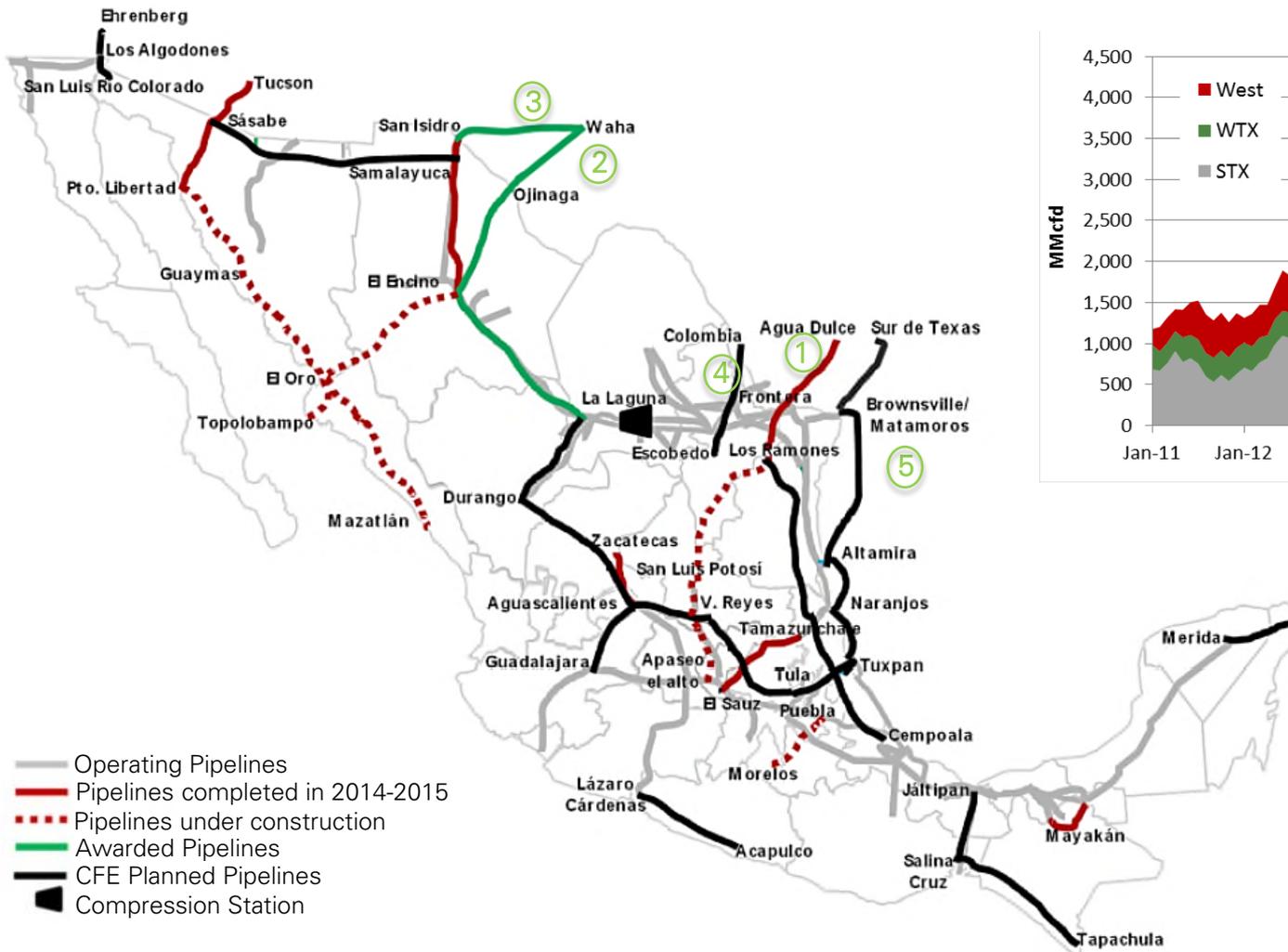


Source: EIA Short Term Energy Outlook, April 2017; Various External Consultants, March 2017

# Mexican gas exports: More infrastructure on the way



Source: Sener, EIA, March 2017

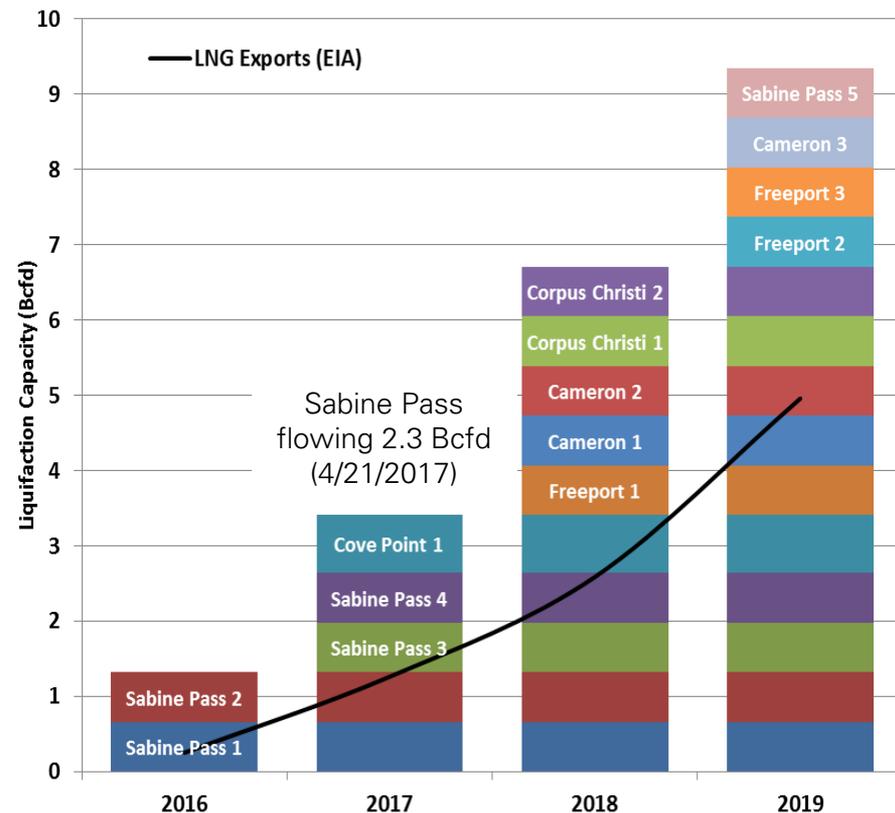
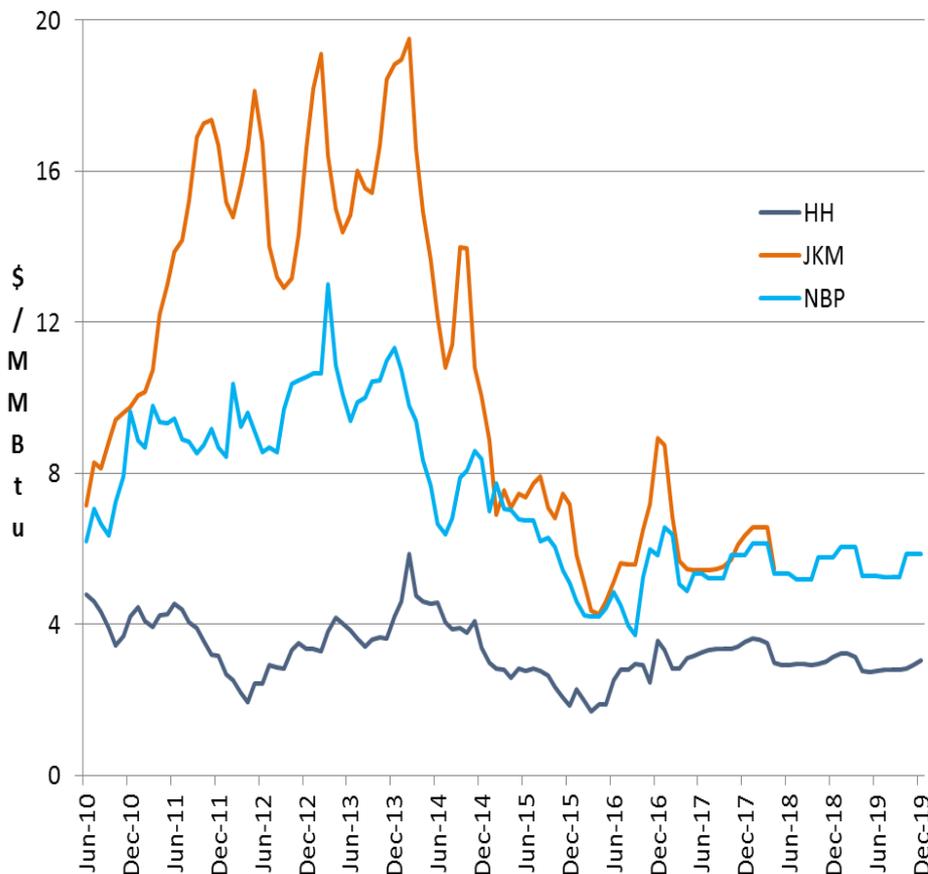


- ① NET Mexico / Los Ramones: 2.1 Bcf/d – Dec 2014
- ② Trans-Pecos: 1.4 Bcf/d – Mar 2017
- ③ Comanche Trail: 1.1 Bcf/d – Jan 2017
- ④ Nueva Era: 0.5 – 1.2 Bcf/d: Jul 2017
- ⑤ Brownsville to Tuxpan : 2.6 Bcf/d – May 2018

# U.S. LNG export capacity: What will be the impact to the global markets?



Sources: EIA, Department of Energy, FERC, various companies websites, Platts, Heren, 4/6/2017

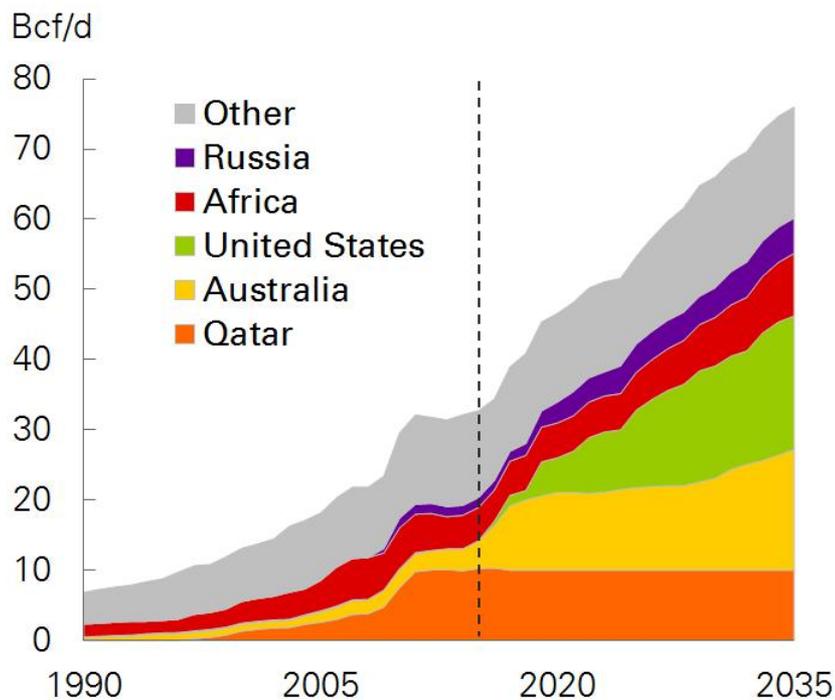


# U.S. expected to play increasing role in meeting world gas demand via LNG

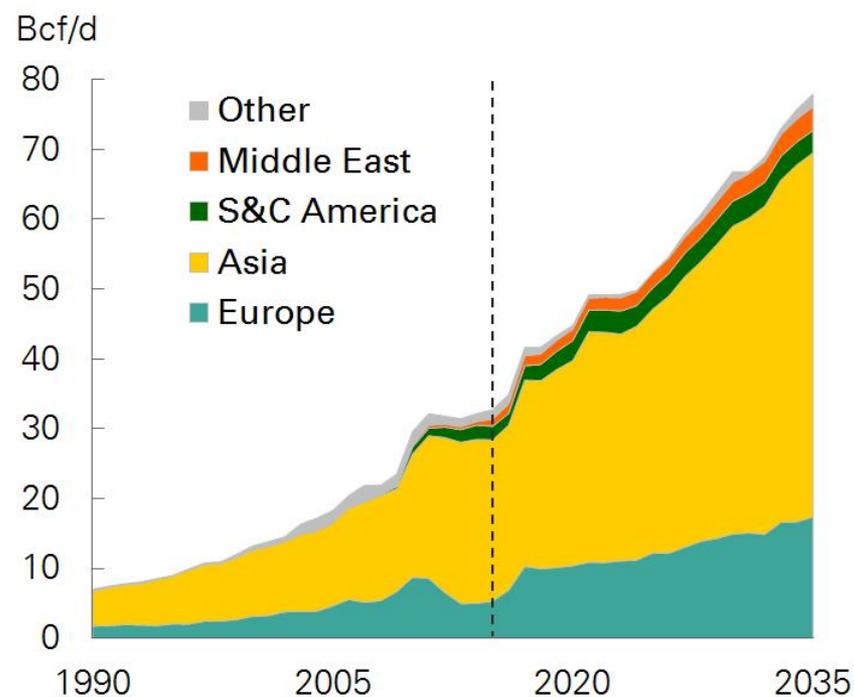


Source: BP 2035 Energy Outlook

### LNG supply



### LNG demand

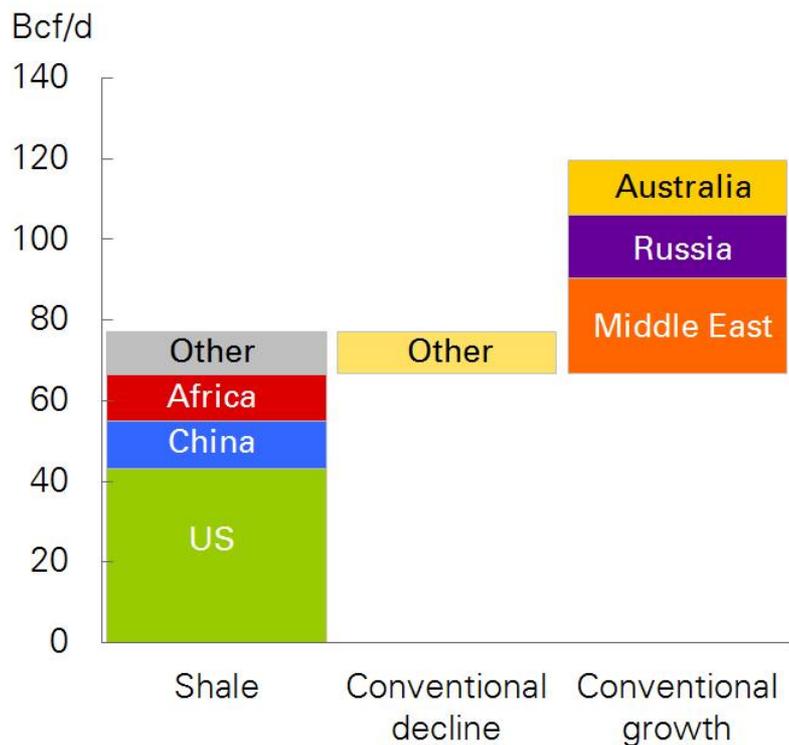


# Global natural gas demand expected to grow over the long-term

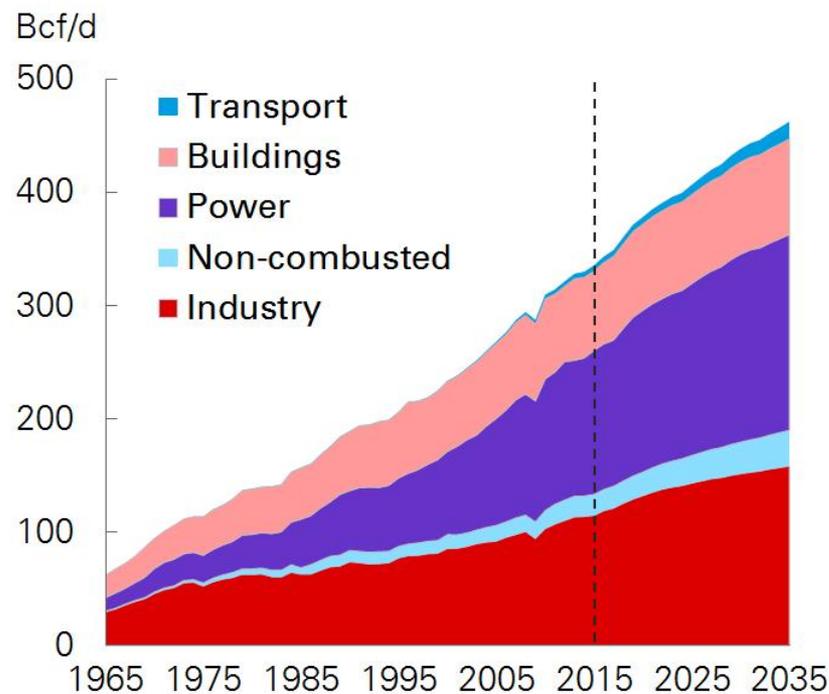


Source: BP 2035 Energy Outlook

### Gas supply growth: 2015-2035



### Gas consumption by sector

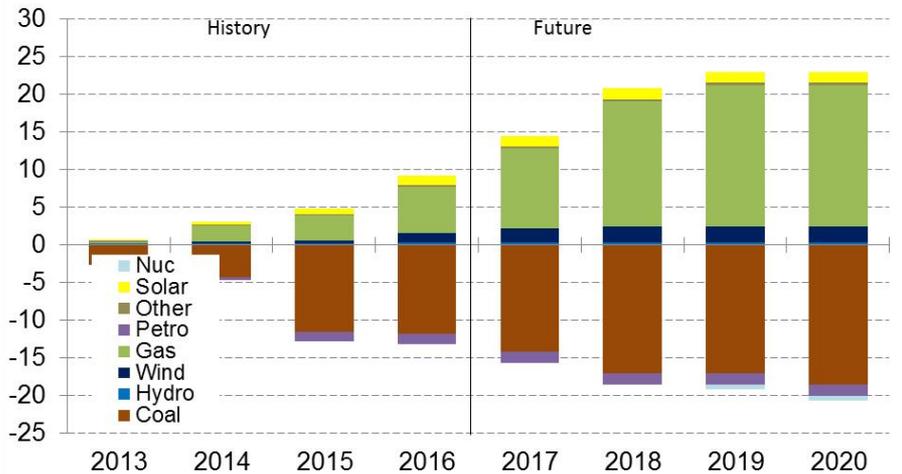


# U.S. generation capacity changes: Coal and nuke retirements, gas and renewable builds

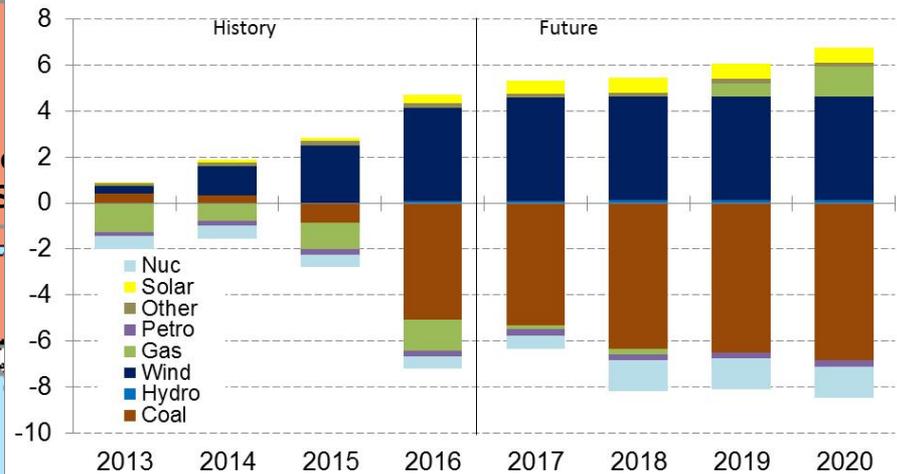


Source: Energy Velocity, 02/16/2017

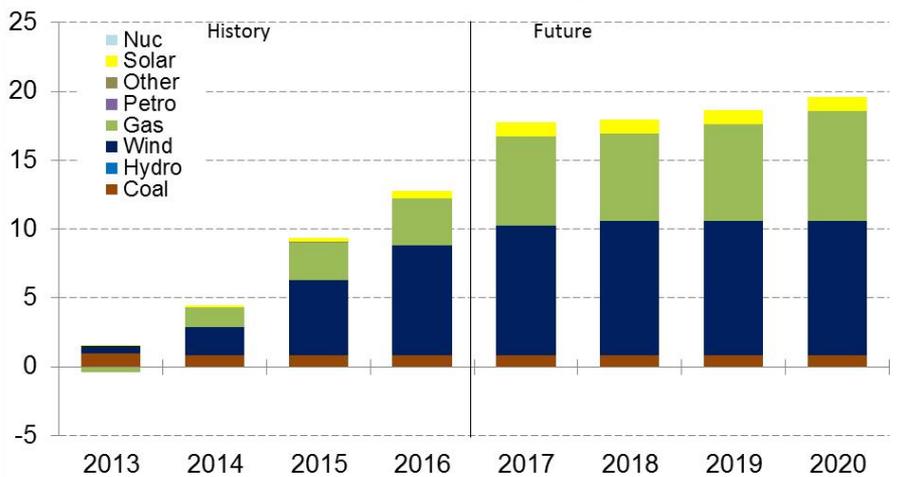
### PJM Net Capacity Changes (GW)



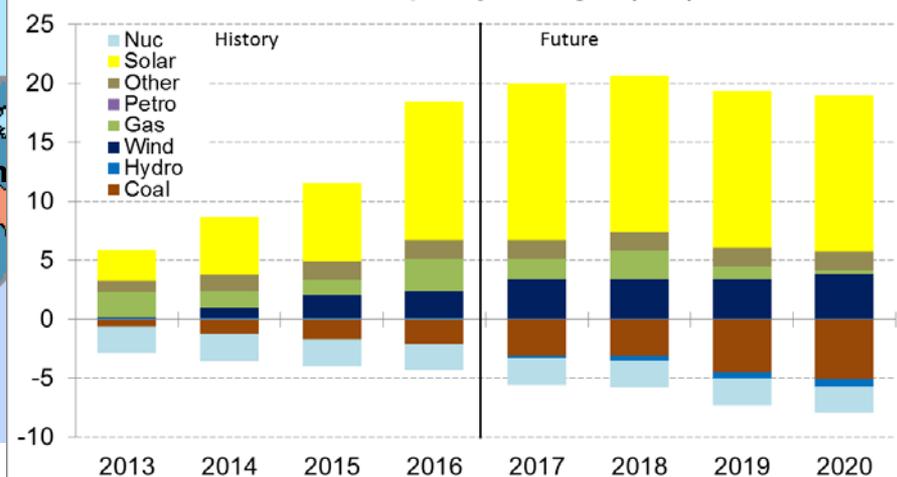
### MISO Net Capacity Changes (GW)



### ERCOT Net Capacity Changes (GW)



### WECC Net Capacity Changes (GW)

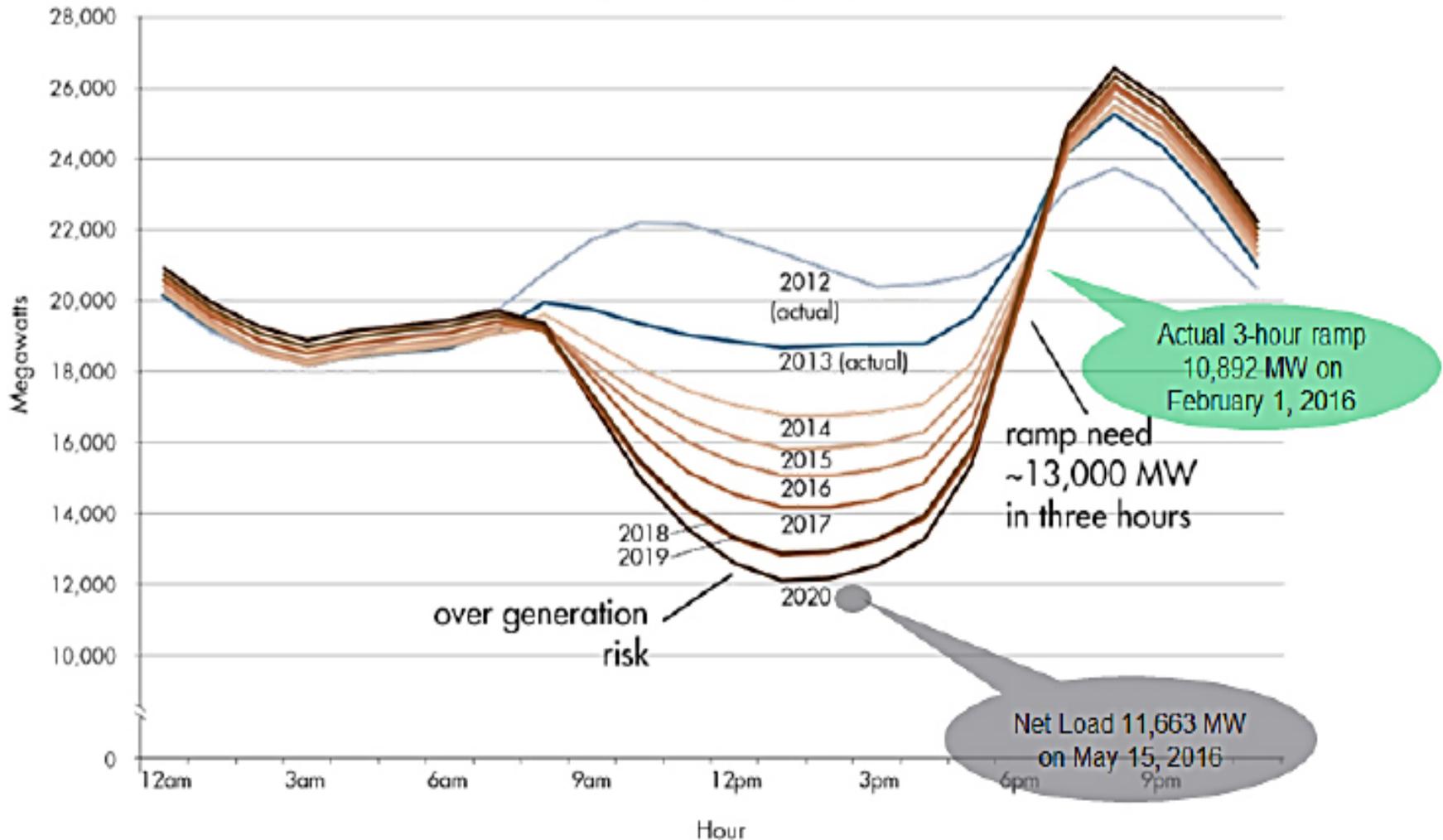


# Growing renewables capacity: A California example – need for flexibility



Source: CAISO, EIA, Energy Velocity, March 2017

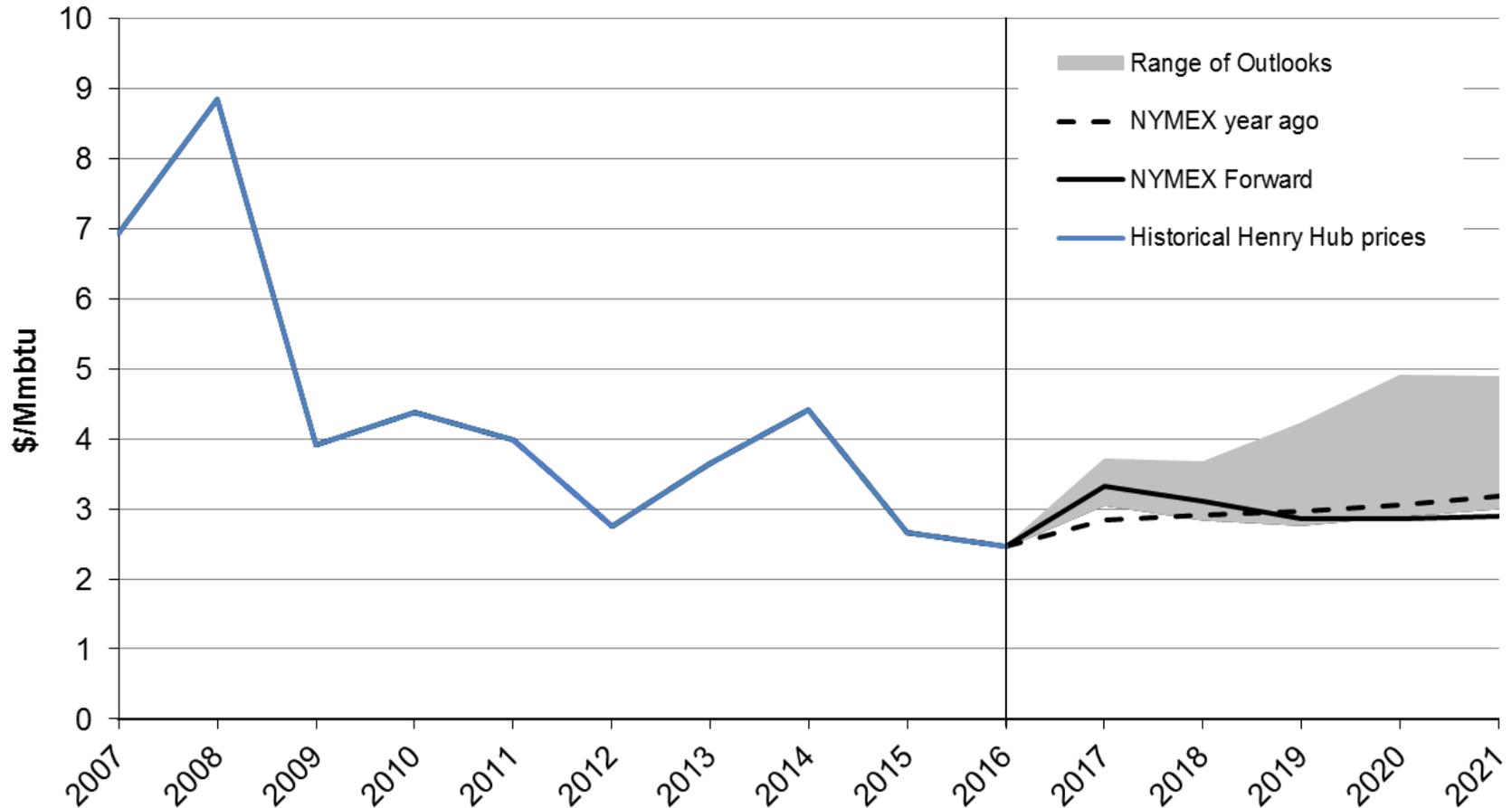
### Typical Spring Day





# Long-term Henry Hub spot price outlooks

Source: NYMEX, Various External Consultants, 4/18/2017



*View of crude oil prices, competing fuels, supply costs, production growth, structural demand trends and global trade flows will influence gas price outlook*



# Key insights

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- North American **market works**: price works to balance supply and demand
- **Short-term factors** such as weather play important role in overall balances, price trends
- U.S. natural gas **supply is expected to grow** over the long term
- **Natural gas exports** (Mexico, LNG) projected to be key demand driver in medium term as global demand for cleaner fuels grows
- Pricing relationships will continue to evolve – **risk management** is key
- **Natural gas is important** part of future power generation and transportation fuel mix – clean, flexible

# Questions?

