

DOCKETED

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U.S. Gas Fundamentals: Going Global

Michael Thomas
BP Energy Company / April 2017



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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

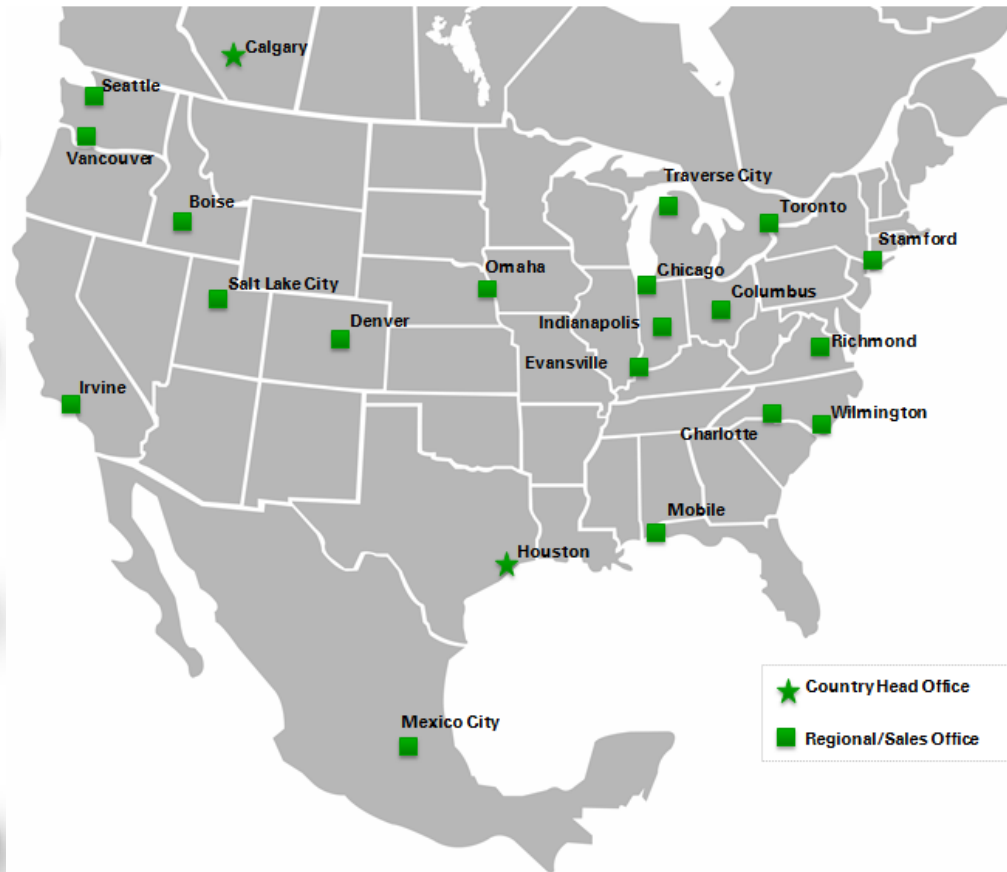
in economic value in the U.S. in 2015

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)

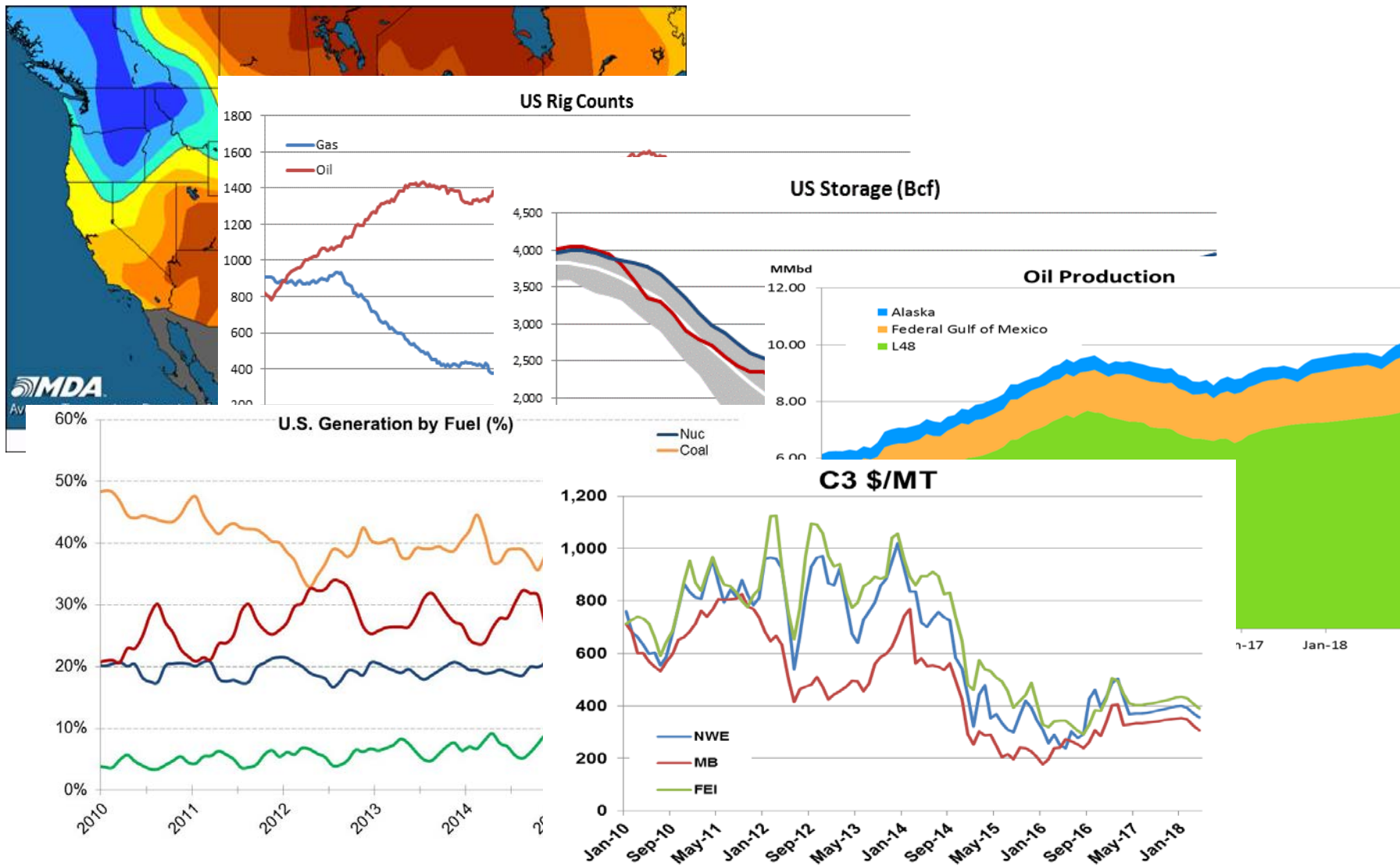


15 Registered
Biogas Pathways

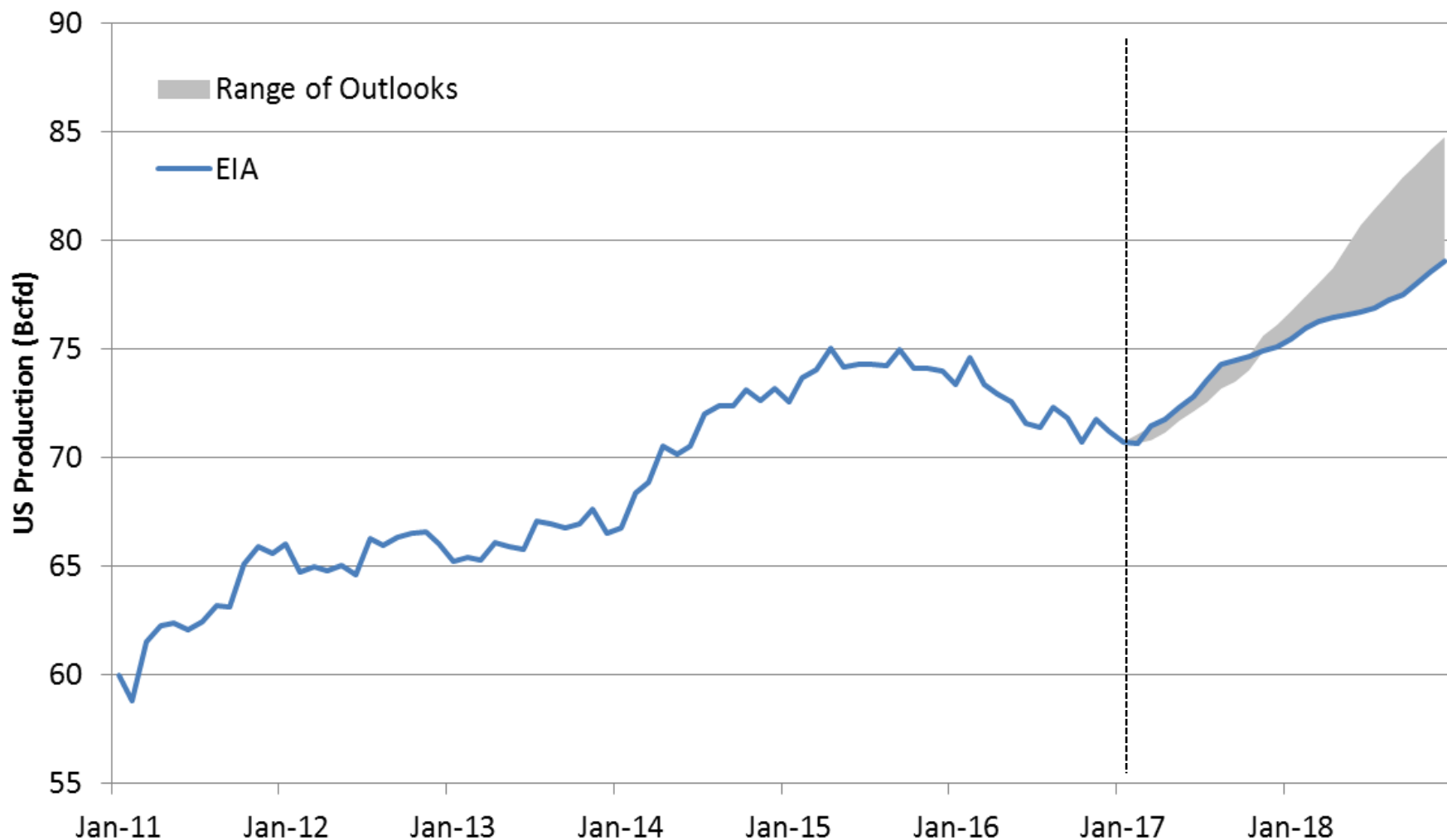


80+ CNG & LNG
Fueling Stations

Many fundamental variables drive North American gas prices...



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

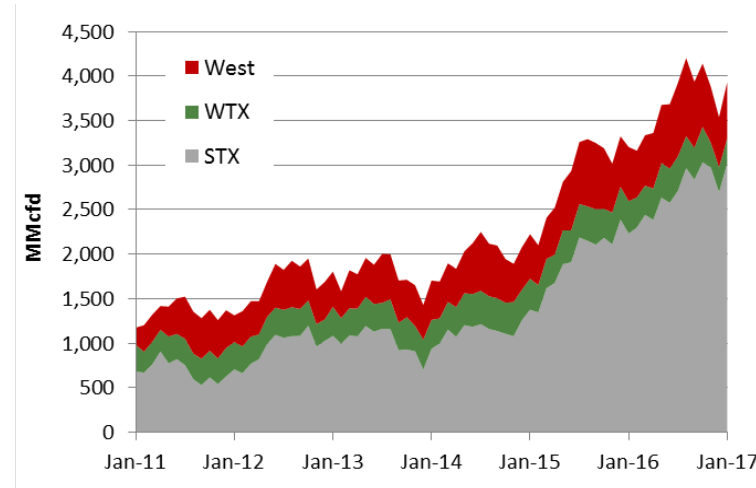
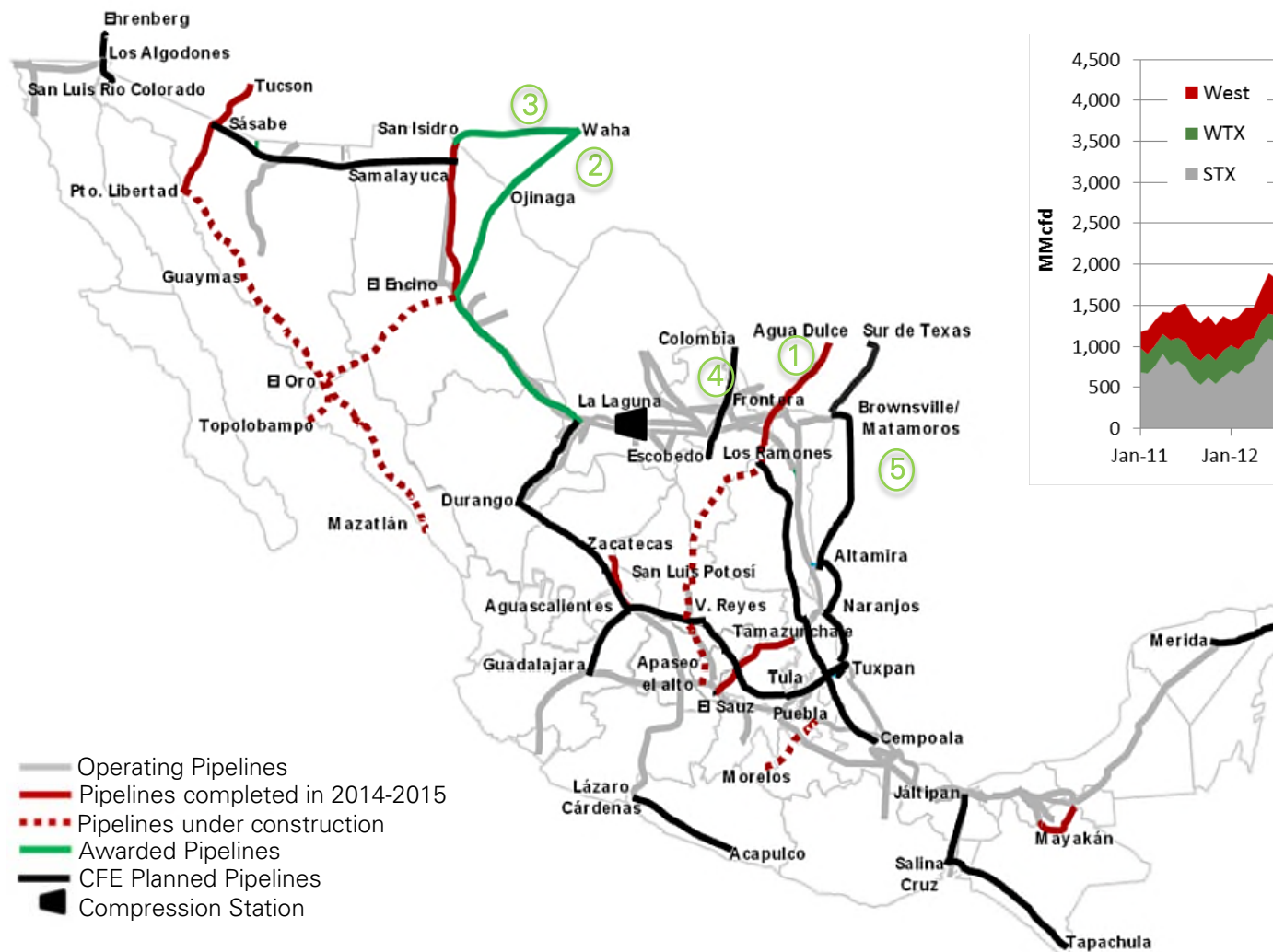


Source: EIA Short Term Energy Outlook, April 2017; Various External Consultants, March 2017

Mexican gas exports: More infrastructure on the way



Source: Sener, EIA, March 2017

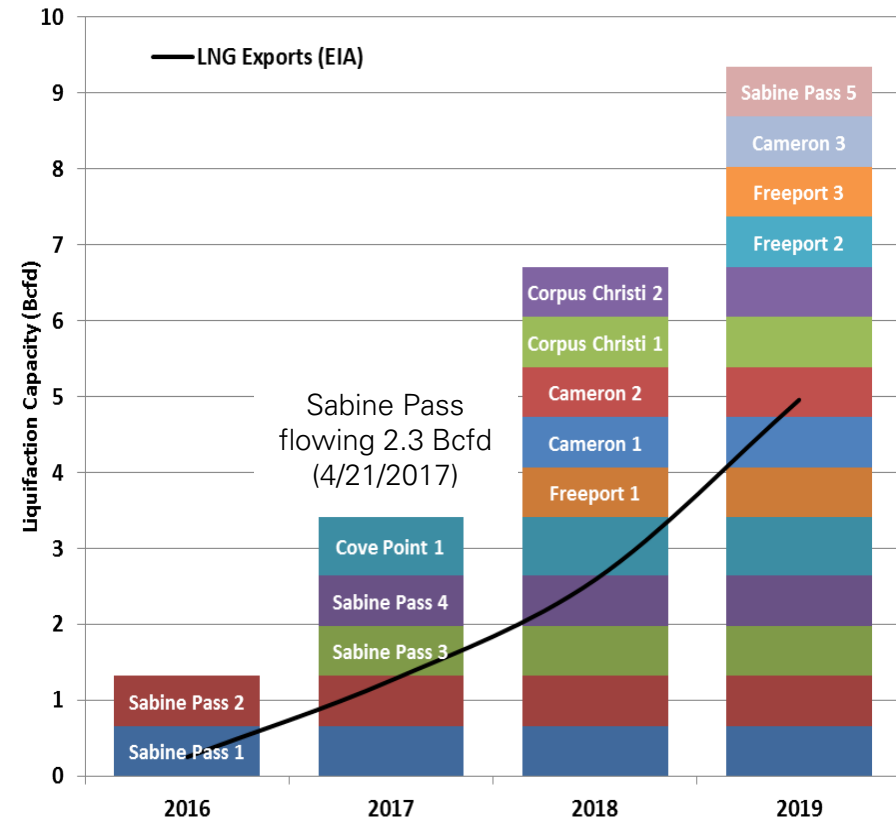
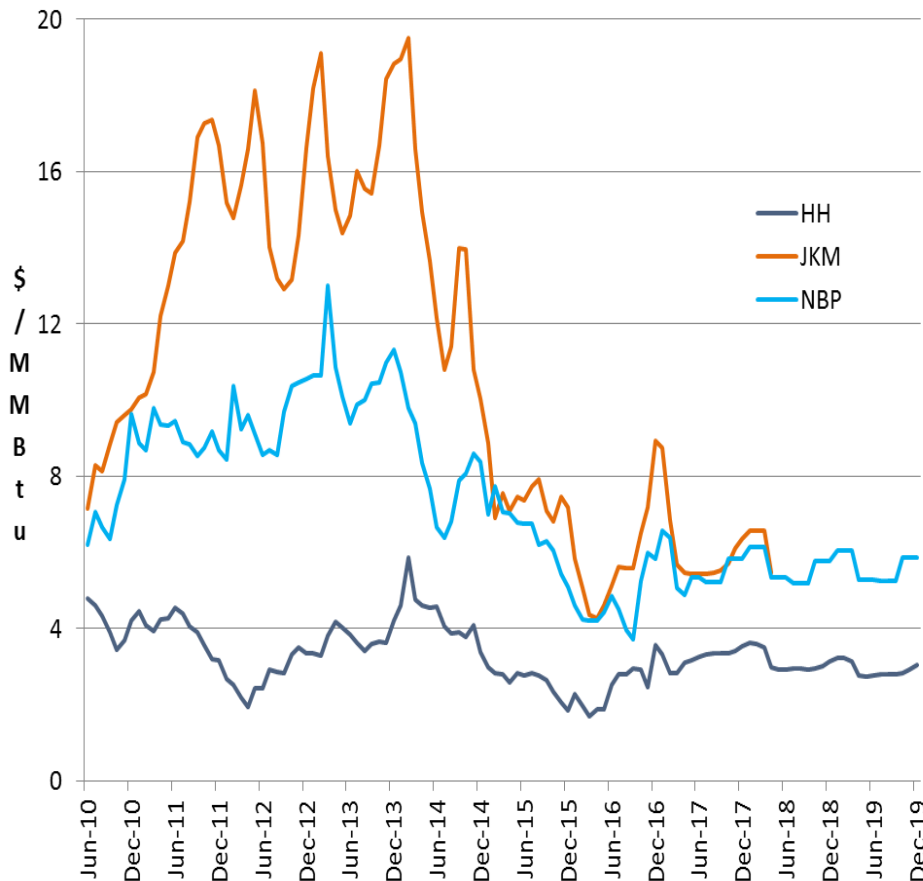


- ① NET Mexico / Los Ramones:
2.1 Bcf/d – Dec 2014
- ② Trans-Pecos:
1.4 Bcf/d – Mar 2017
- ③ Comanche Trail:
1.1 Bcf/d – Jan 2017
- ④ Nueva Era:
0.5 – 1.2 Bcf/d: Jul 2017
- ⑤ Brownsville to Tuxpan :
2.6 Bcf/d – May 2018

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

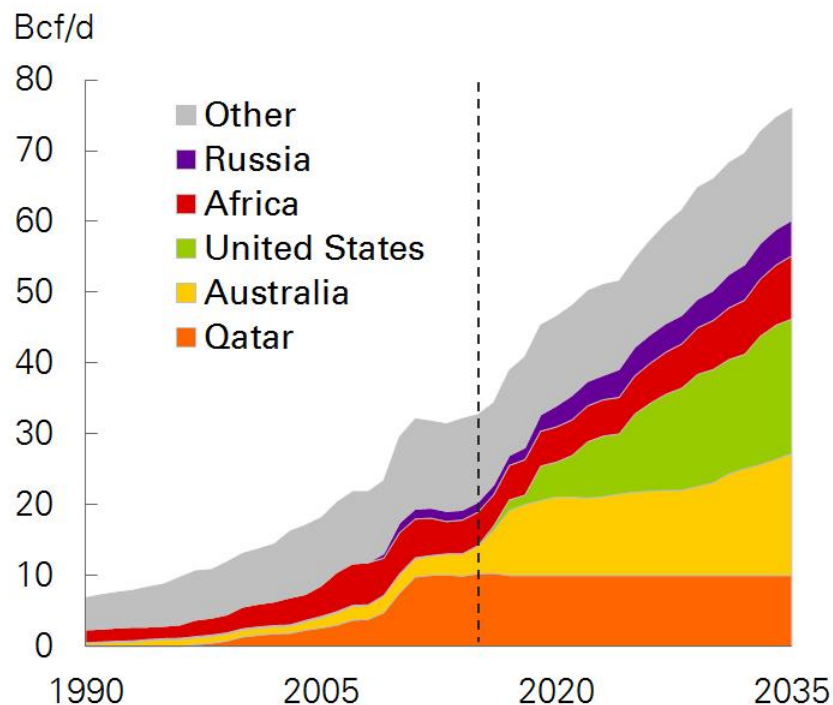


U.S. expected to play increasing role in meeting world gas demand via LNG

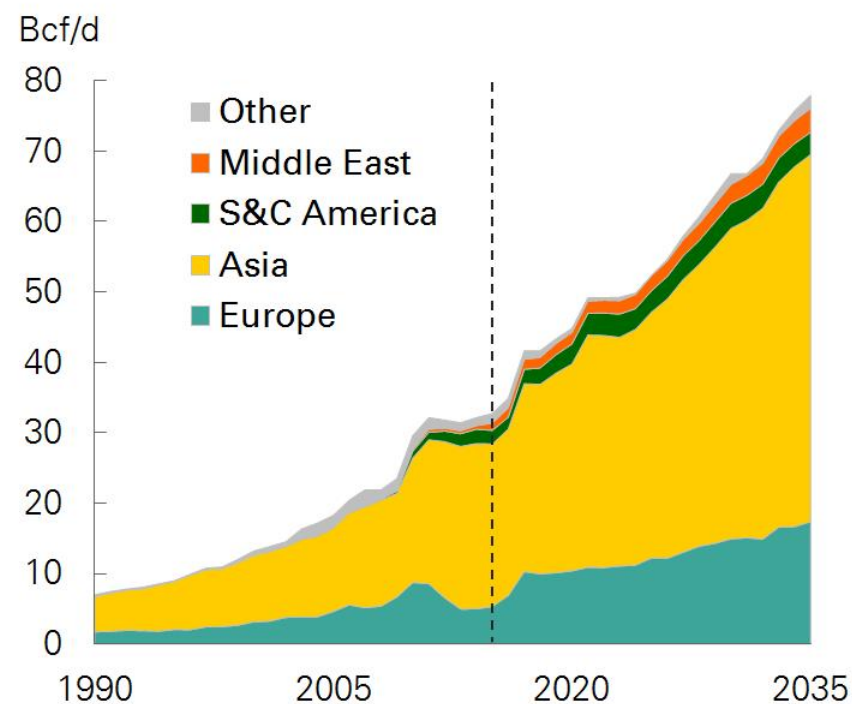


Source: BP 2035 Energy Outlook

LNG supply



LNG demand

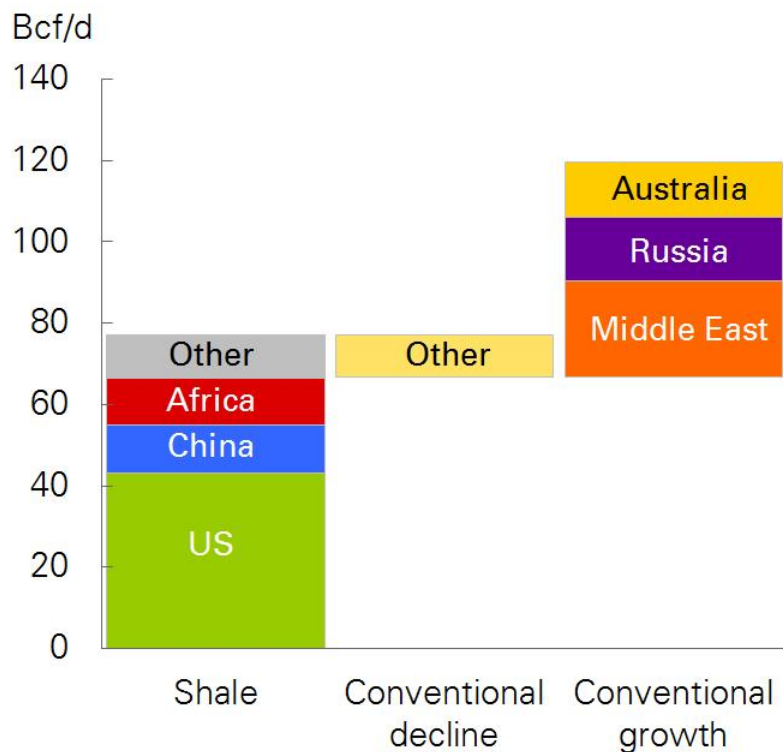


Global natural gas demand expected to grow over the long-term



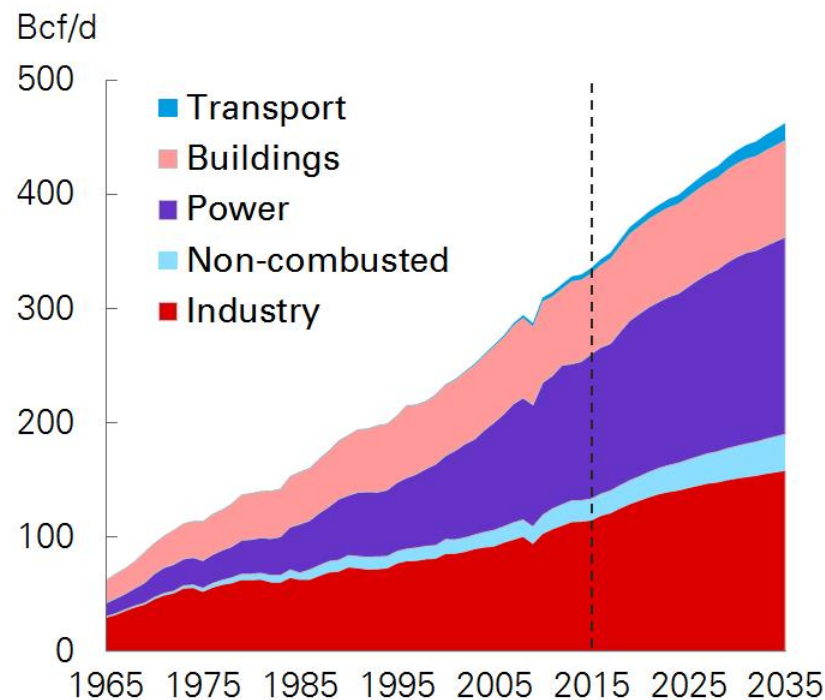
Source: BP 2035 Energy Outlook

Gas supply growth: 2015-2035



2017 Energy Outlook

Gas consumption by sector



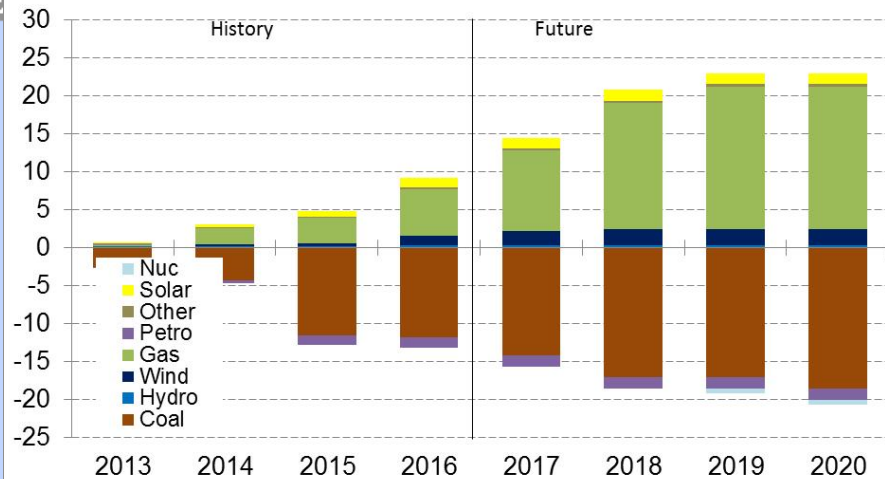
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U.S. generation capacity changes: Coal and nuke retirements, gas and renewable builds

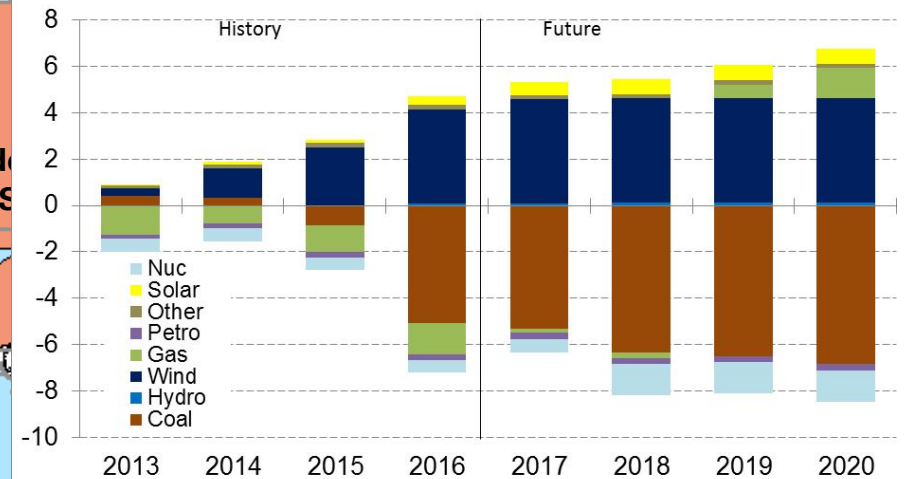


Source: Energy Velocity, 02/16/2017

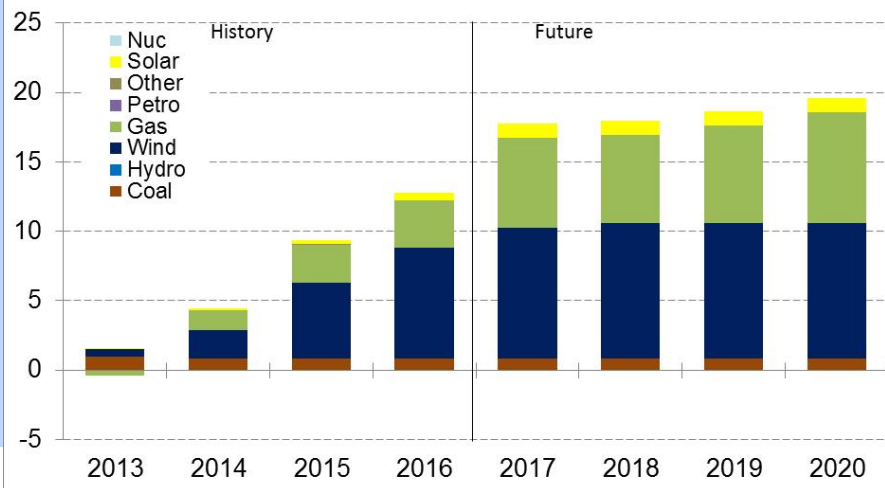
PJM Net Capacity Changes (GW)



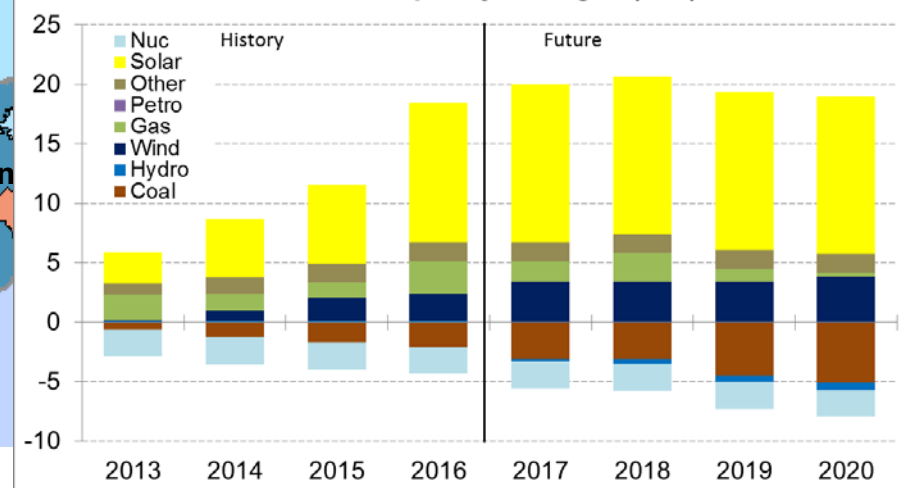
MISO Net Capacity Changes (GW)



ERCOT Net Capacity Changes (GW)



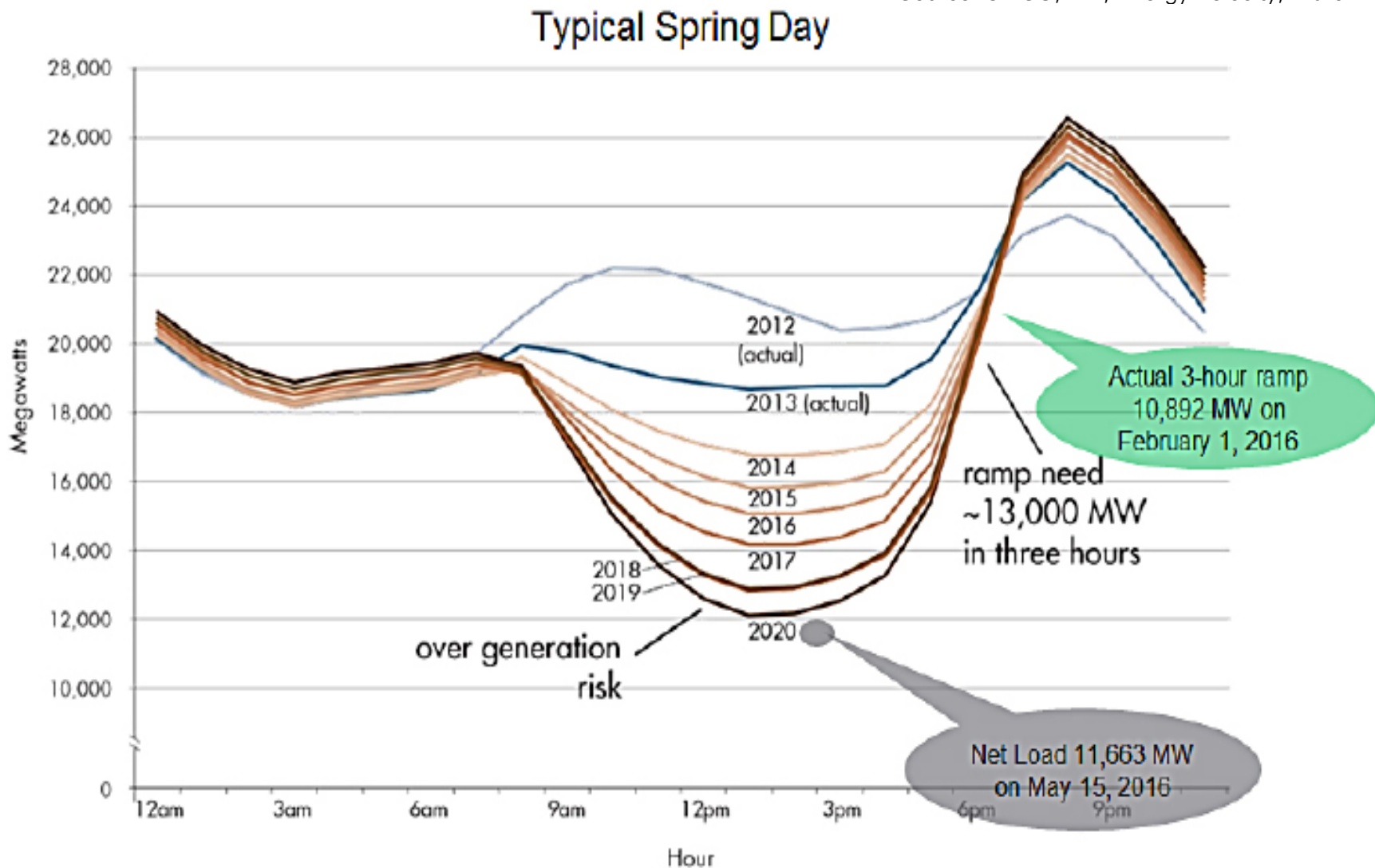
WECC Net Capacity Changes (GW)



Growing renewables capacity: A California example – need for flexibility



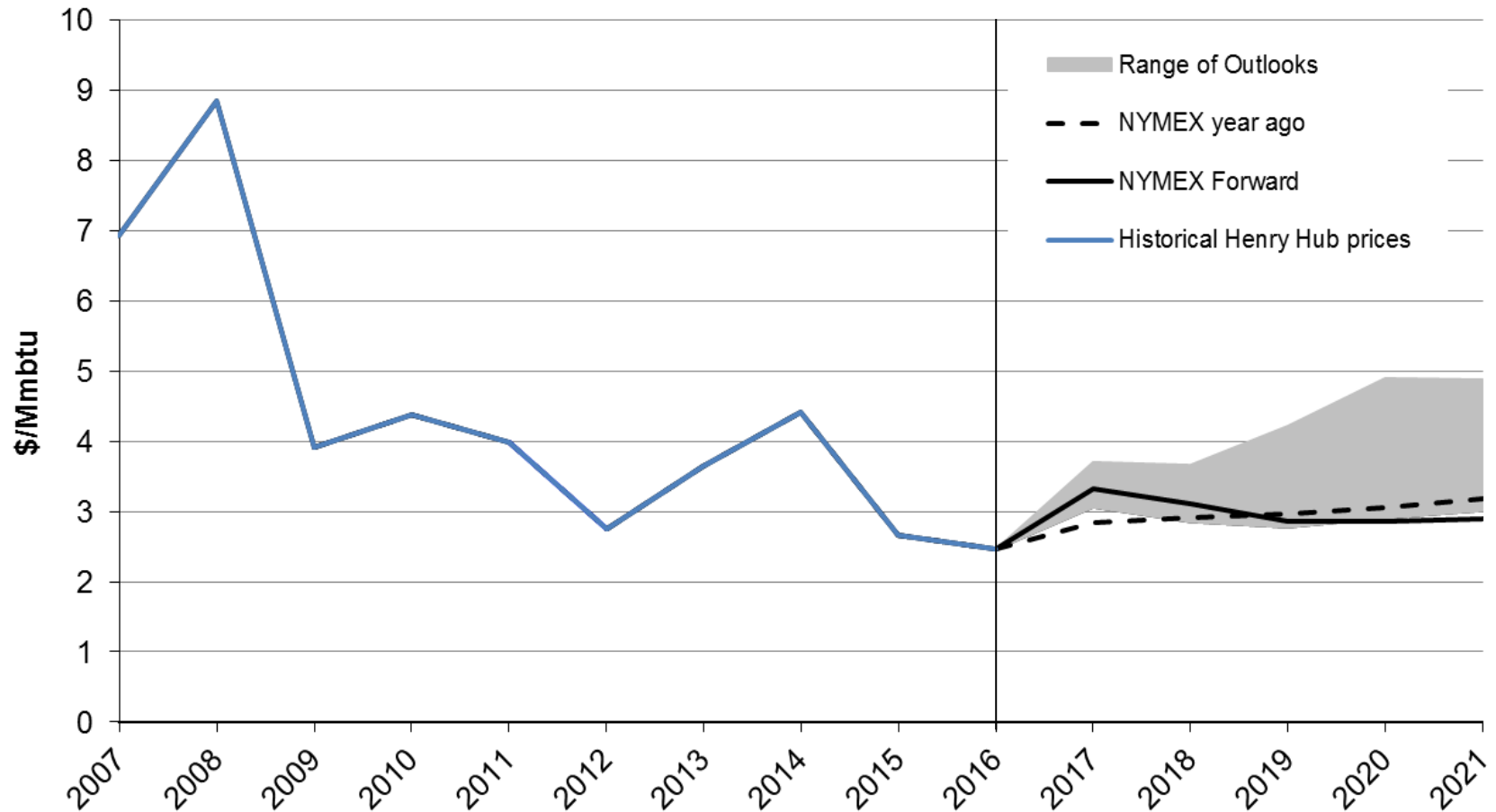
Source: CAISO, EIA, Energy Velocity, March 2017





Long-term Henry Hub spot price outlook

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

- 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?

