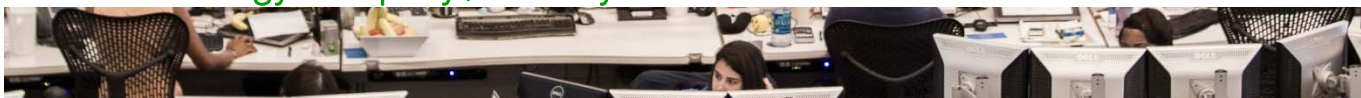




Coal Institute Conference: Fundamentals Update

Josh McCall, CFA
BP Energy Company / January 2017





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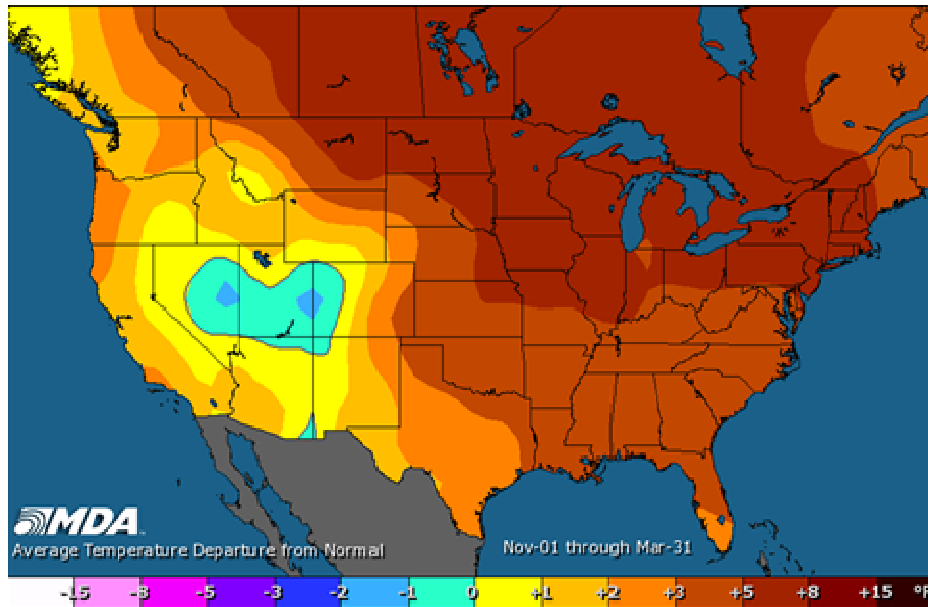
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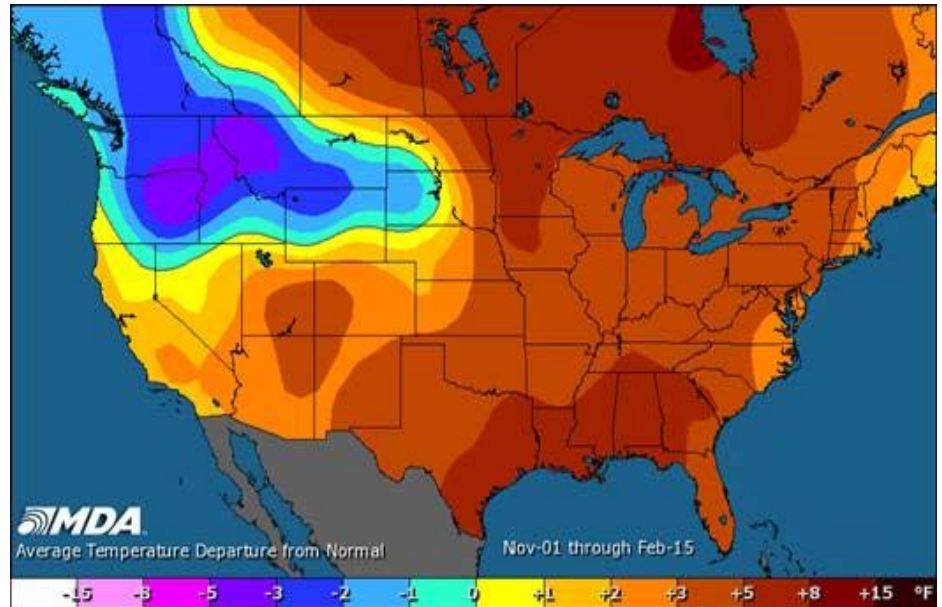
Weather has been warmer than normal for most of the US



Nov 1 – Mar 31, 2015-16



Nov 1 – Feb 15, 2016-17

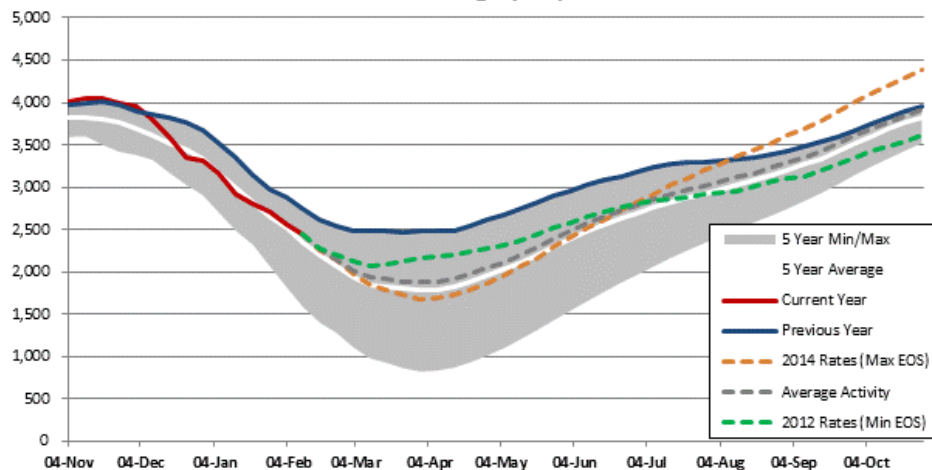


US gas storage: 303 Bcf year-over year deficit currently; big change from 2016

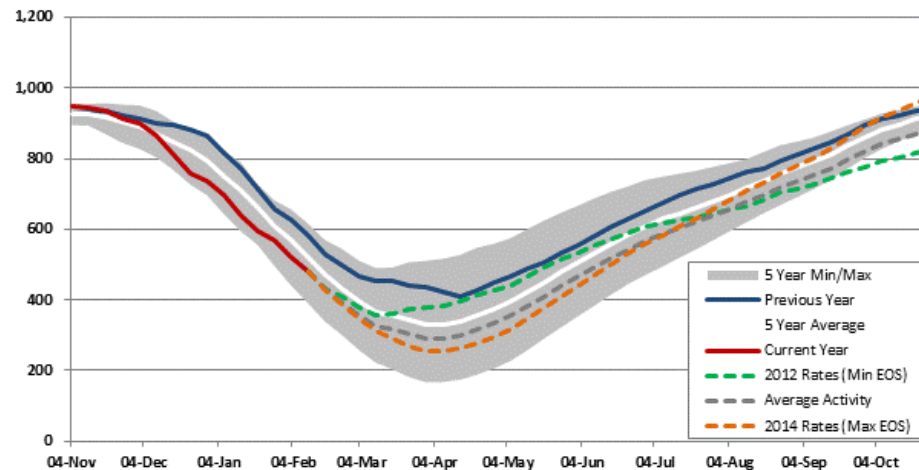


Source: EIA, 02-10-2017

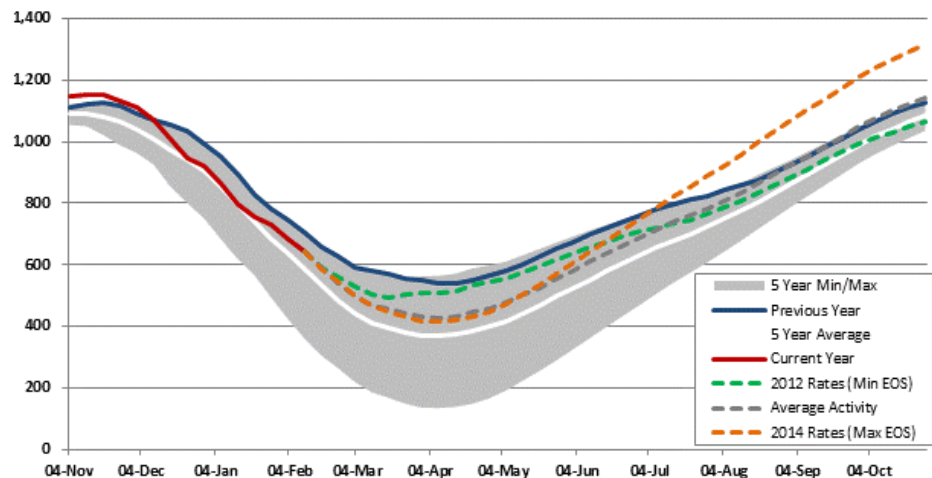
US Storage (Bcf)



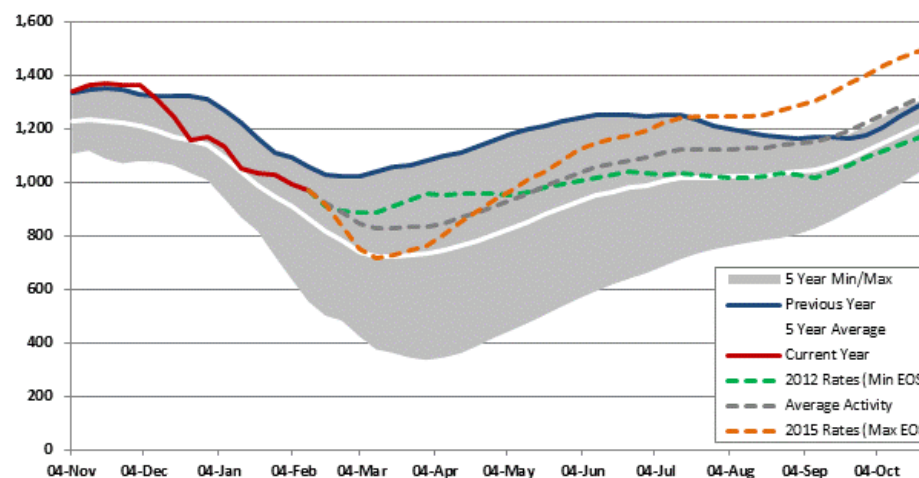
East Storage (Bcf)



Midwest Storage (Bcf)



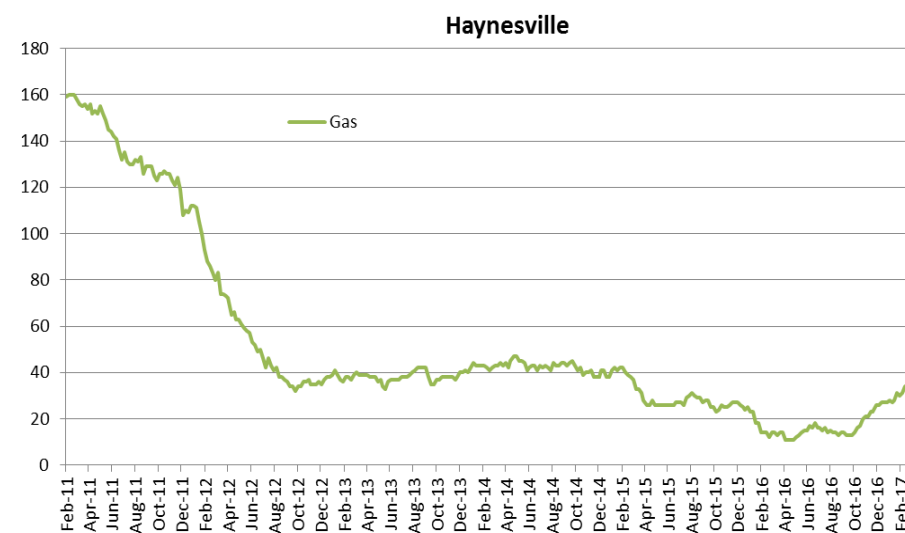
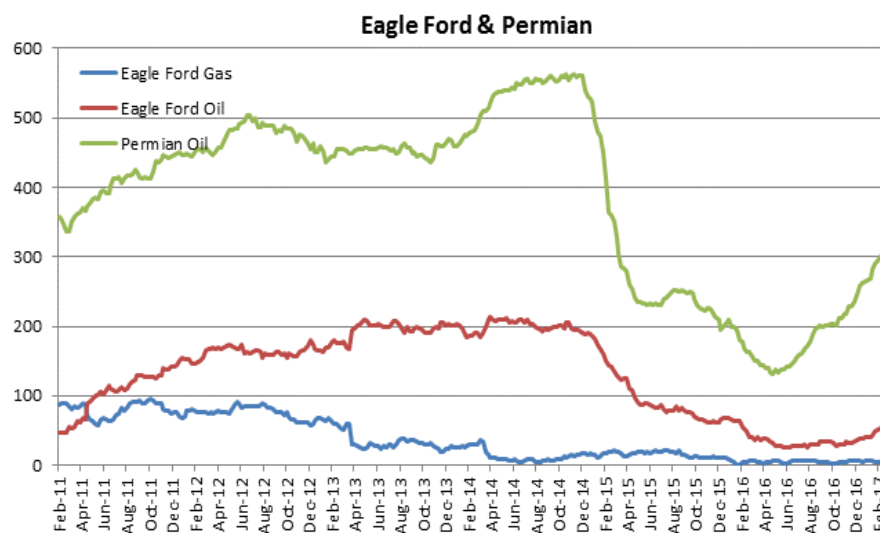
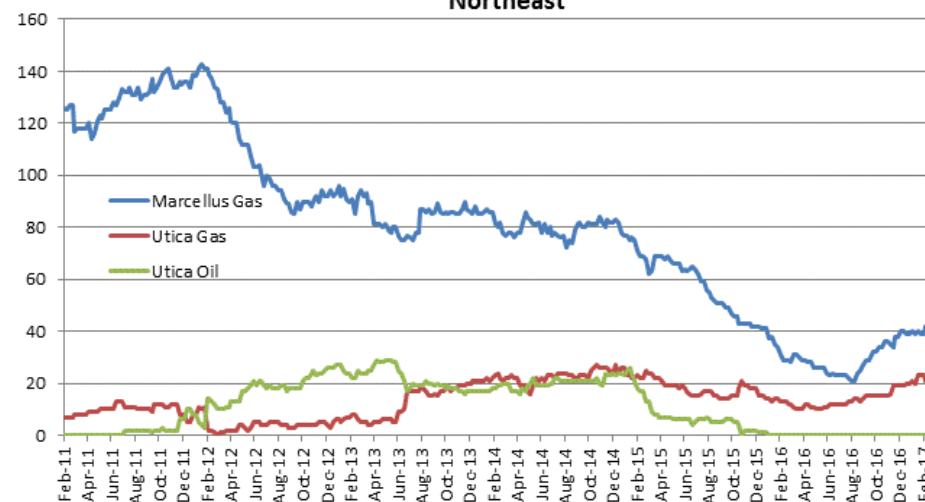
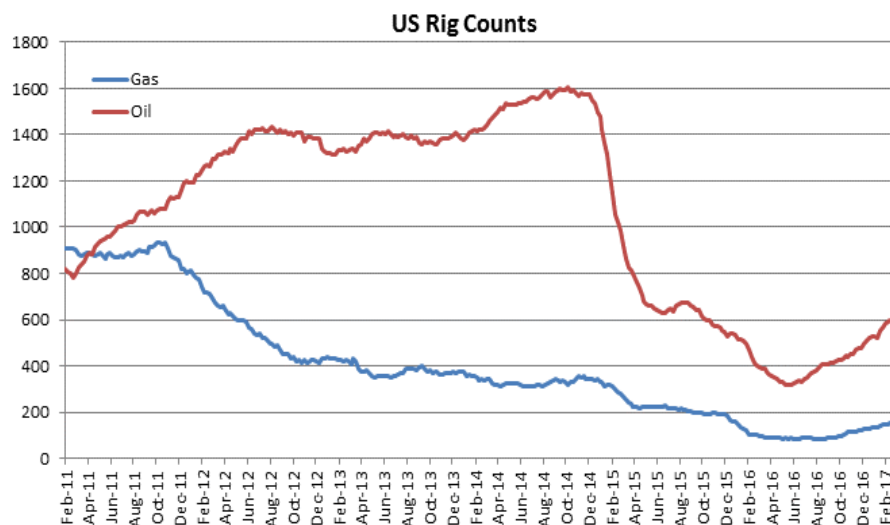
South Central Storage (Bcf)





Rig counts have recovered from the lows

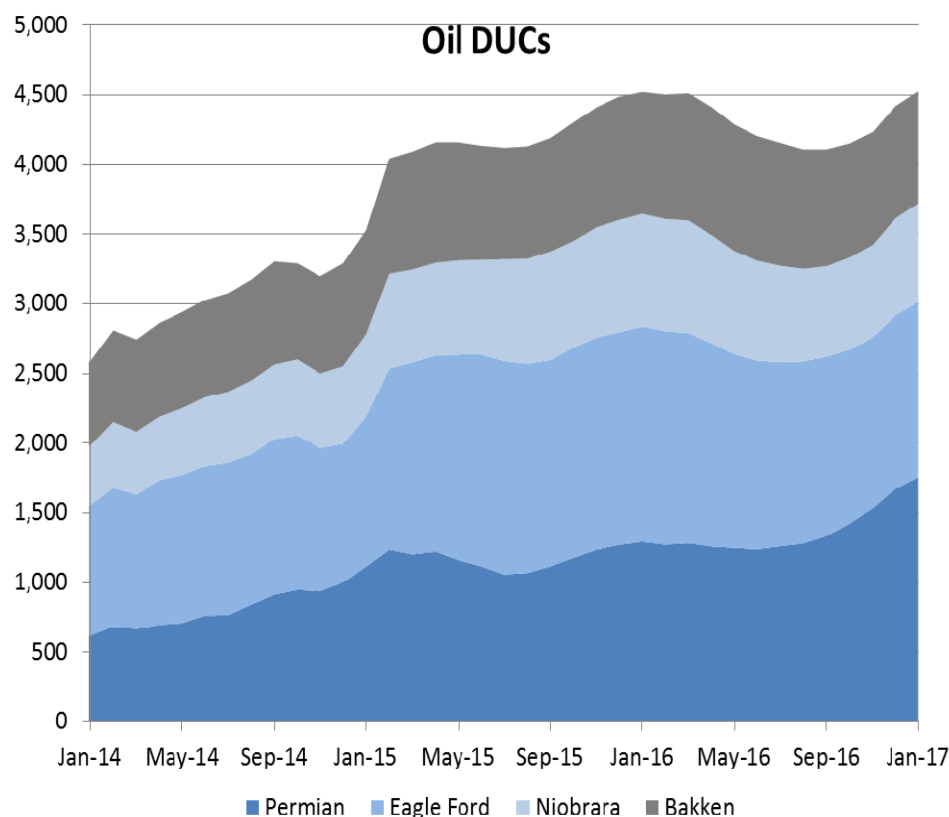
Source: Baker Hughes, 2/17/2017
Northeast



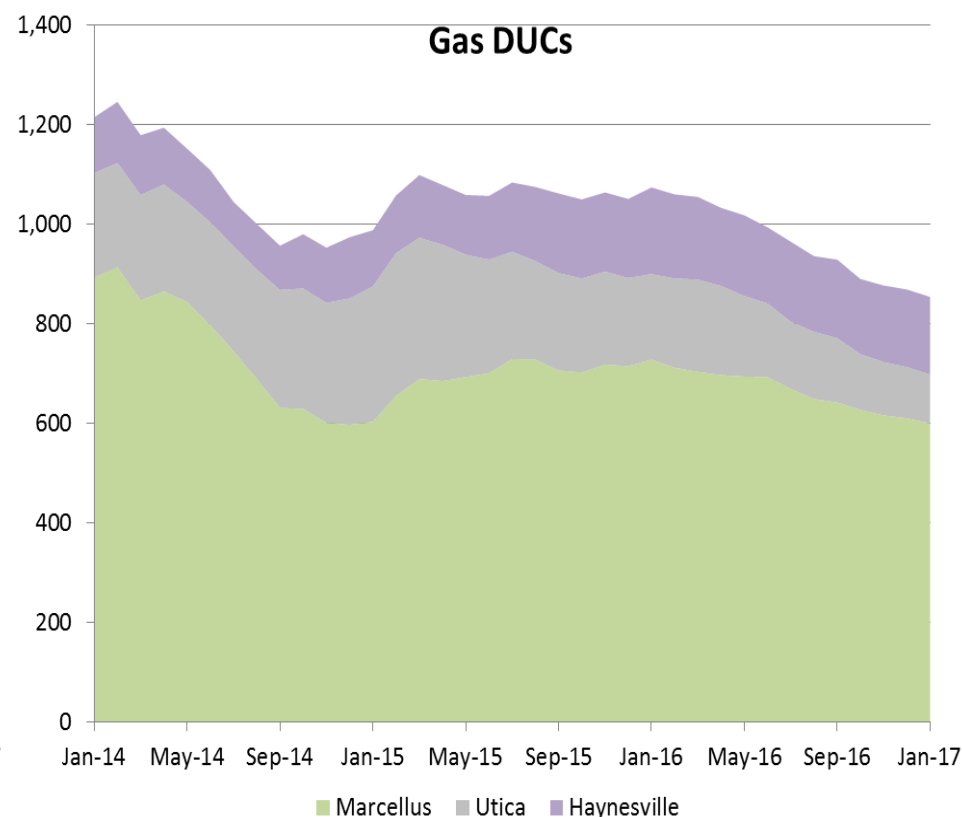
Drilled but uncompleted wells (DUCs) have helped partially offset the decline in rig counts



Source: EIA, Drilling Productivity Report, February 2017



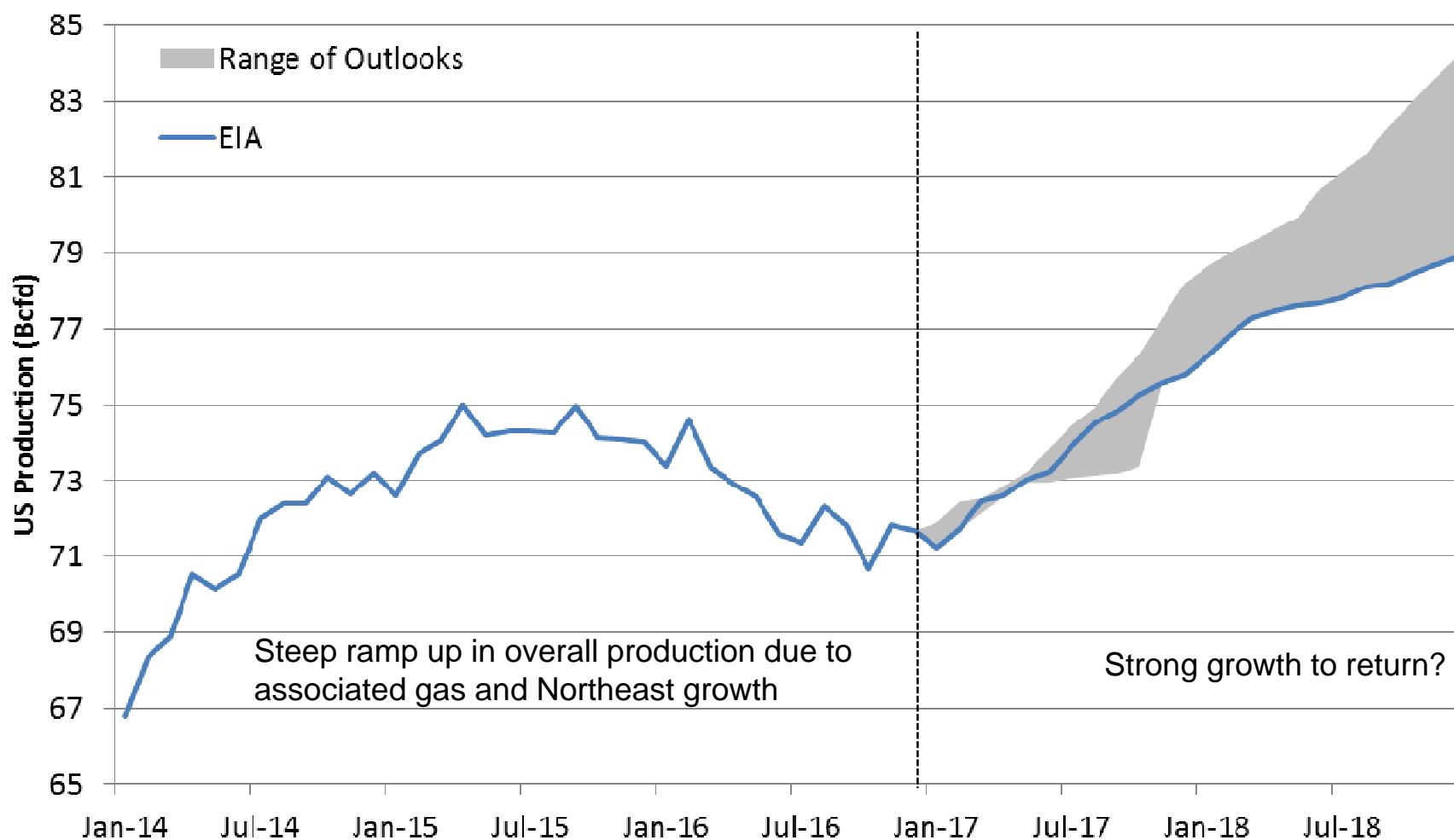
Total January Oil
DUCs: 4,527



Total January Gas DUCs:
854



U.S. gas supply: Strong growth to return?



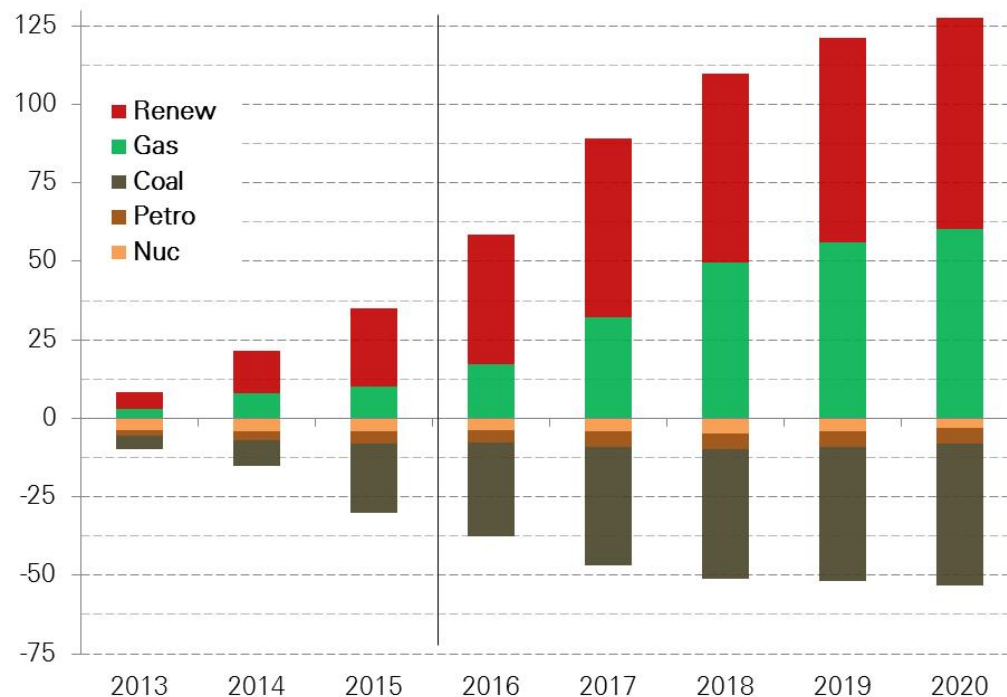
Source: EIA Short Term Energy Outlook, February 2017; Various External Consultants, January 2017

Gas demand growth: Power sector



Source: Energy Velocity, February 2017

Announced Lower-48 U.S. Electricity Generating Capacity Changes (GW)



- What changes under the new administration?
 - Extension of PTC & ITC and growth in renewables generation
 - EPA???
- Slower electricity demand
- Gas/coal pricing relationship

* Under construction or financed future projects only

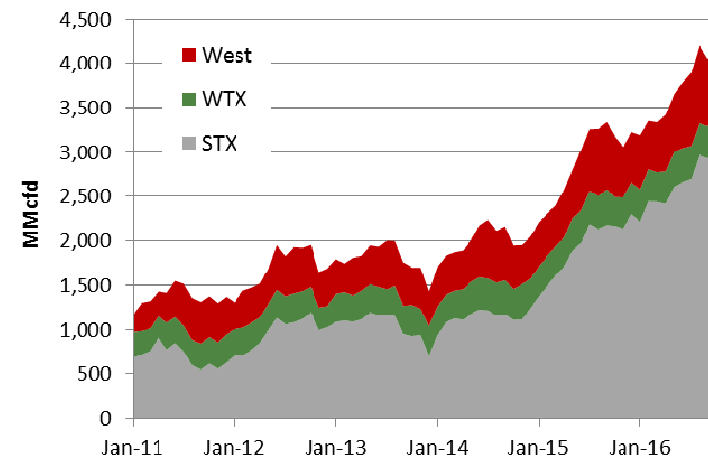
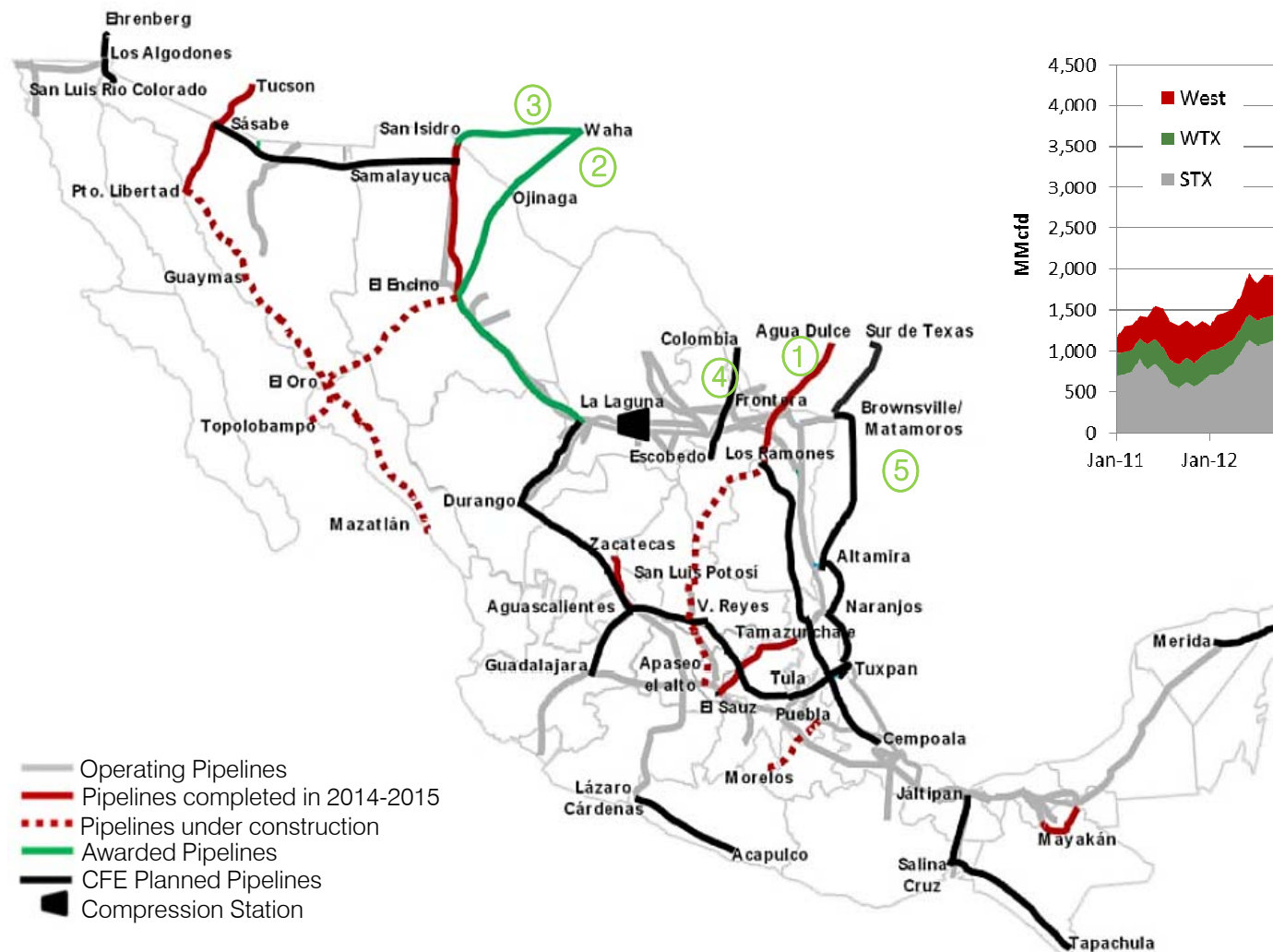
Regulatory policy changes driving coal retirements, new generation capacity additions

But uncertainty around those policies could delay investment, gas demand growth

Exports to Mexico have increased, with more pipe expansions to come



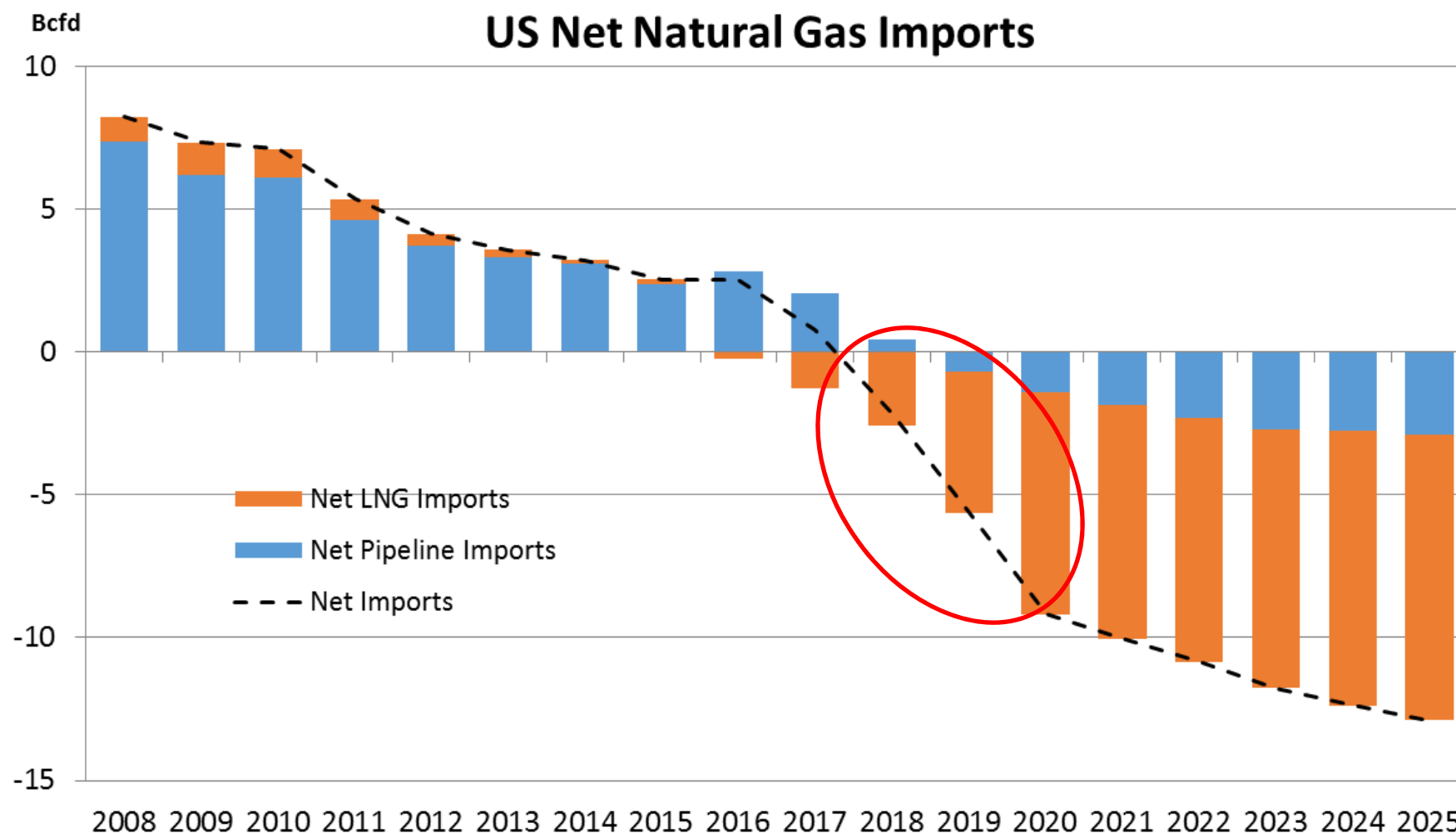
Source: Sener, EIA, January 2017



- ① NET Mexico / Los Ramones: 2.1 Bcf/d – Dec 2014
- ② Waha to Presidio: 1.4 Bcf/d – Mar 2017
- ③ Waha to San Elizario: 1.1 Bcf/d – Jan 2017
- ④ Columbia to Escobedo: 0.5 – 1.2 Bcf/d: Jul 2017
- ⑤ Brownsville to Tuxpan : 2.6 Bcf/d – May 2018



The US is shifting towards a net export market

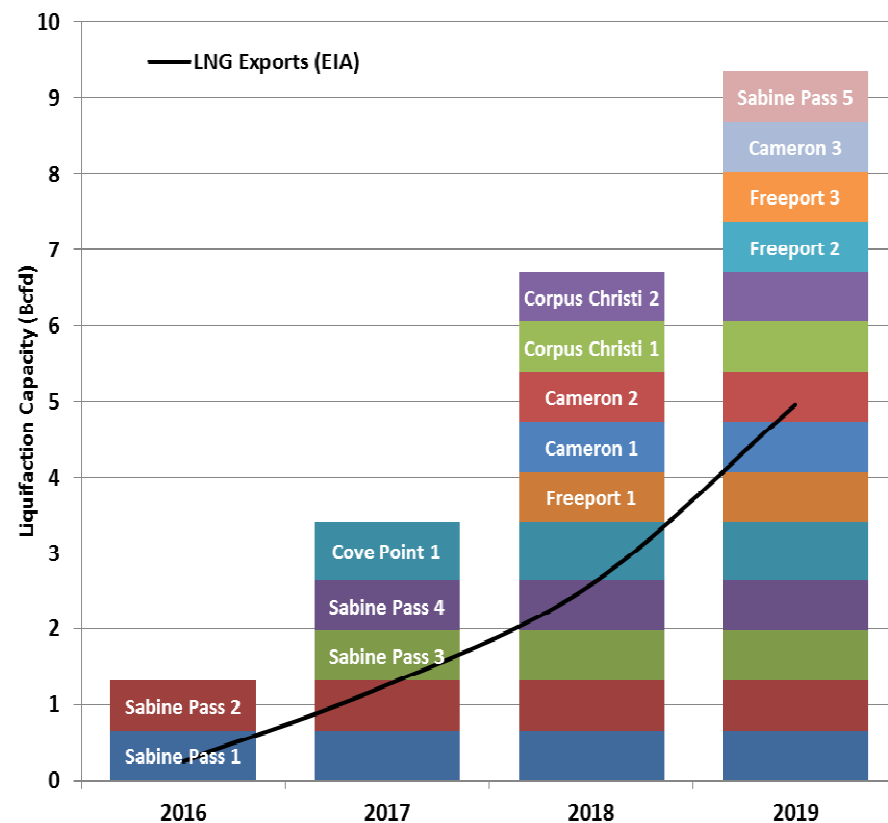
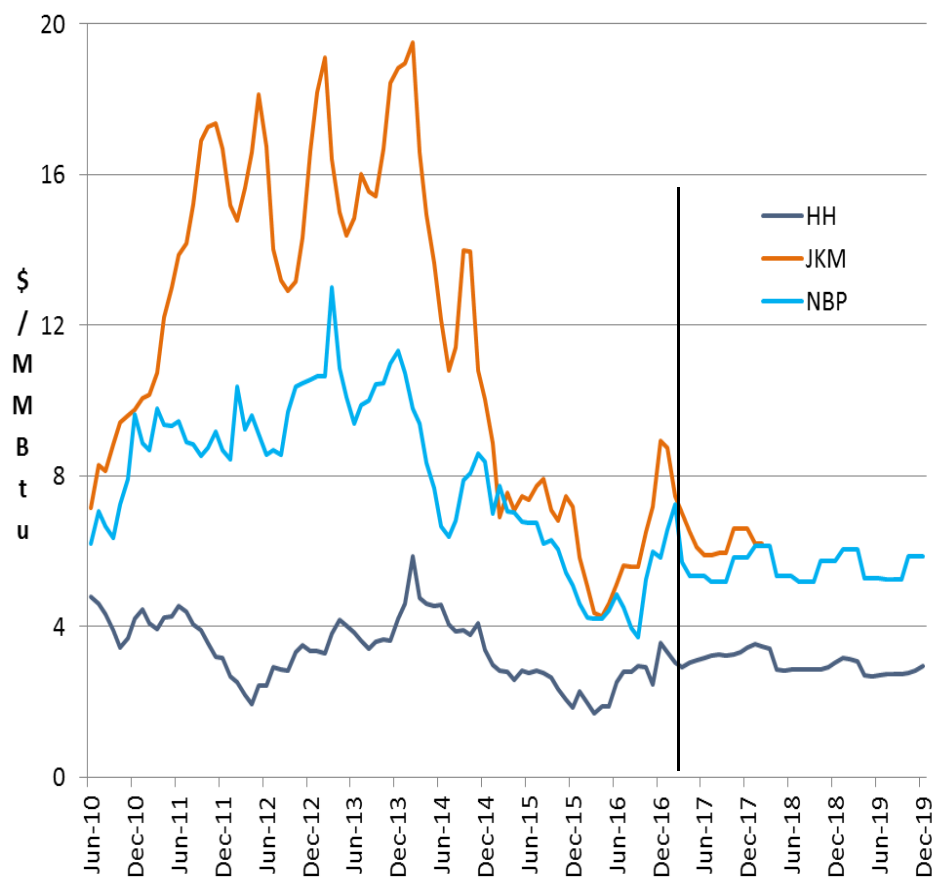


Source: EIA Monthly, December 2016; AEO 2017

US LNG export capacity: What will be the impact to the global markets?



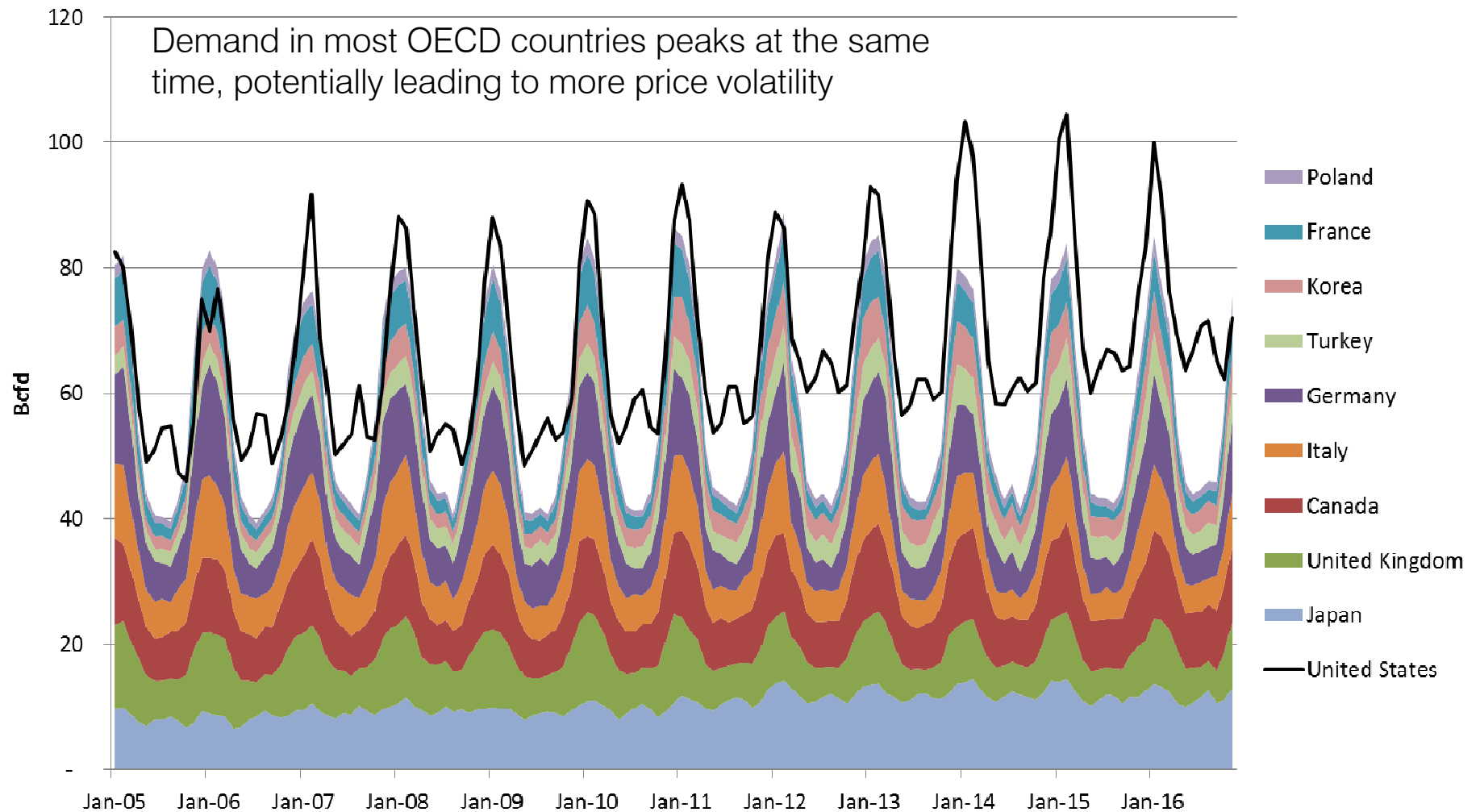
Sources: EIA, various companies websites, Platts, Heren, 2/10/2017



World winter demand: Multiple countries have winter peaking demand



Sources: EIA, IEA February 2017

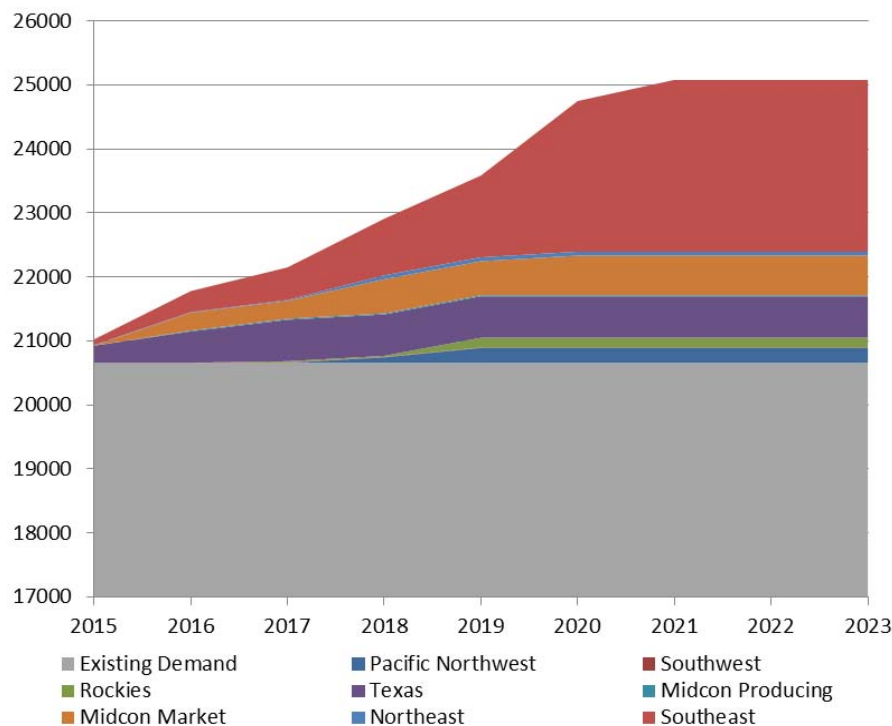


U.S. industrial demand growth: Focused in industry and region



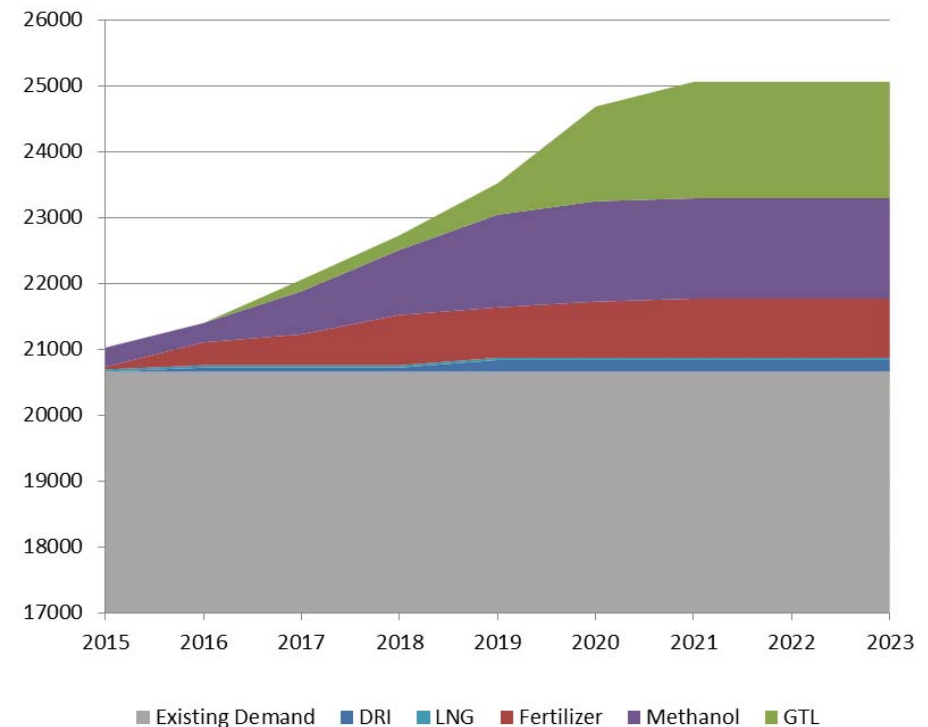
Source: Platts Analytics' Bentek Energy, January 2017

Cummulative Estimated Gas Demand by Region, MMcf/d



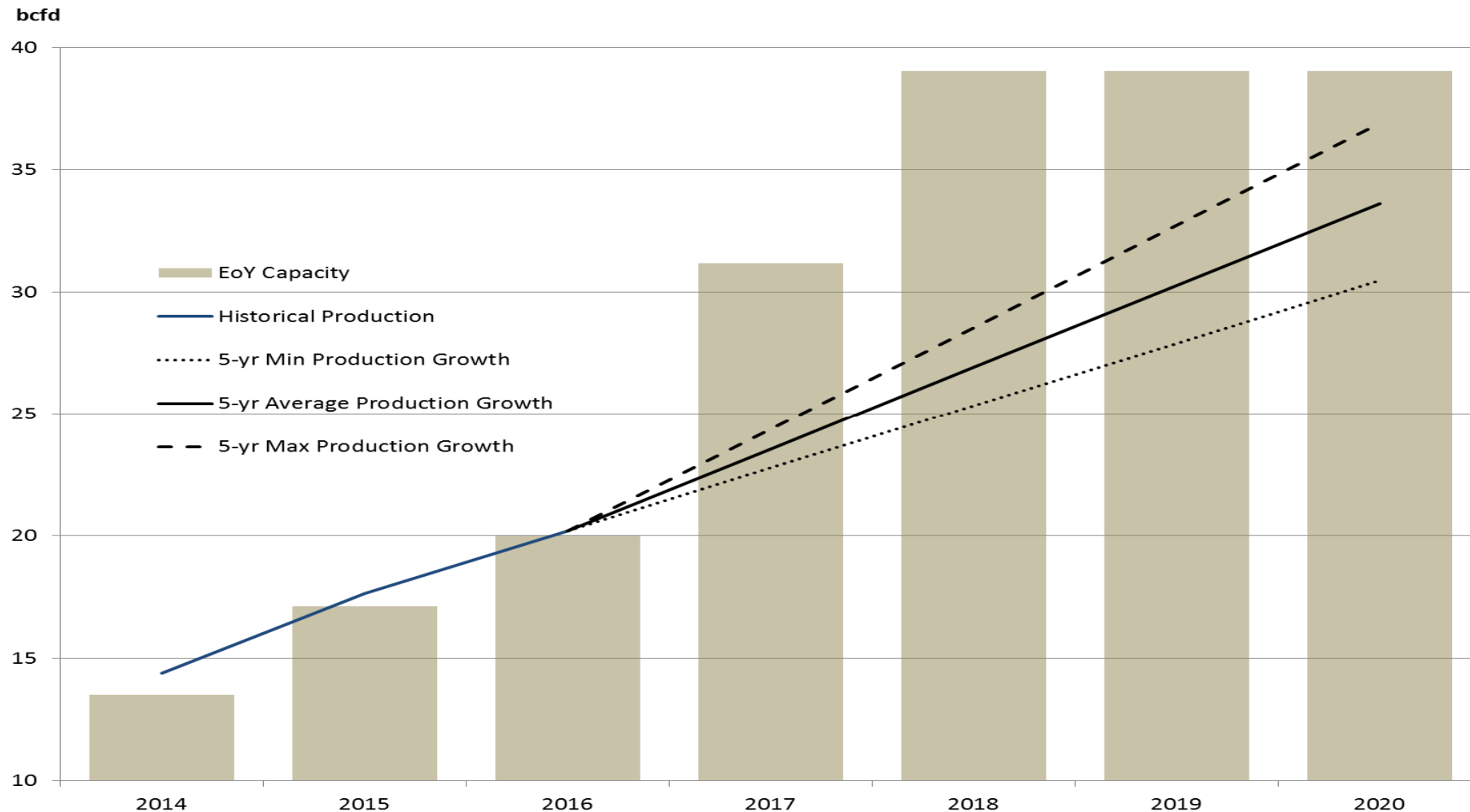
Highest demand growth expected in Southeast and Texas

Cummulative Estimated Gas Demand by Sector, MMcf/d



Highest demand growth expected in Fertilizer, GTL, and Methanol

Marcellus Takeaway Capacity: Too much or not enough?



Sources: EIA, Public Announcements; BP Analytics

Questions?

