

Uncharted Territory: US Natural Gas Market Ahead of Winter

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S&P Global
Platts

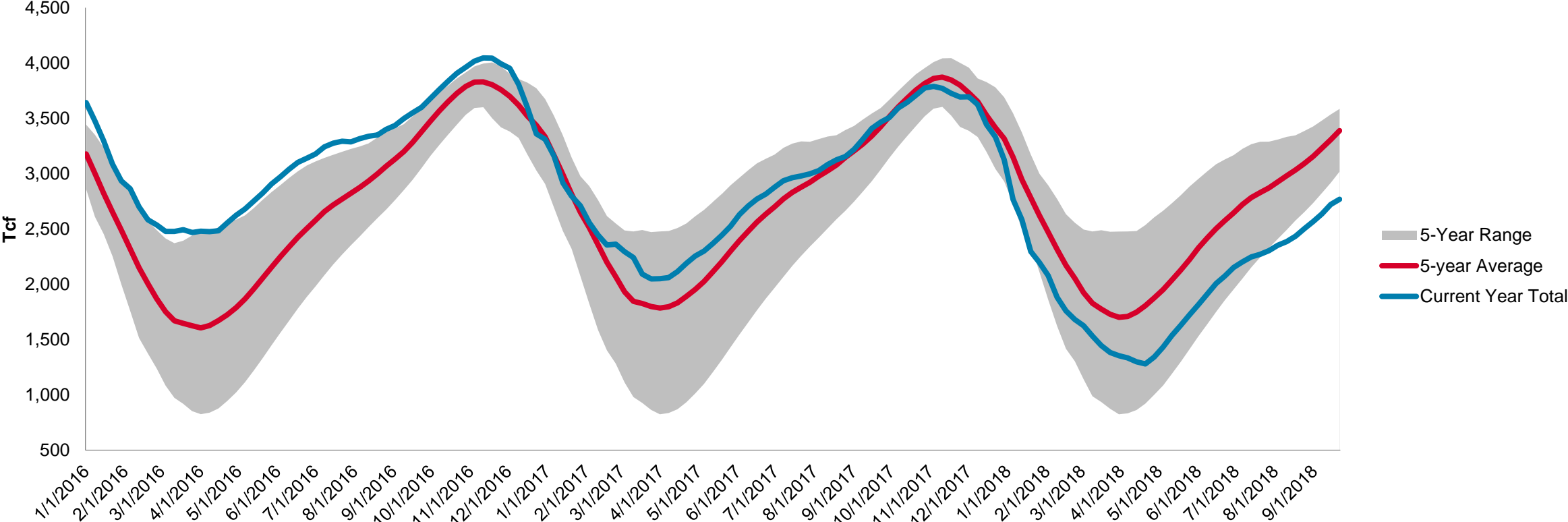
Agenda

- NYMEX begins to budge in waning weeks of injection season
- Fundamentals alter pricing dynamics from Waha to Los Angeles
- Want to see pricing volatility? Look towards the regional levels
- A Post-VPM World: Developments in Mexican pricing since July 2017

Key Pricing Trends in US Market As Winter Approaches

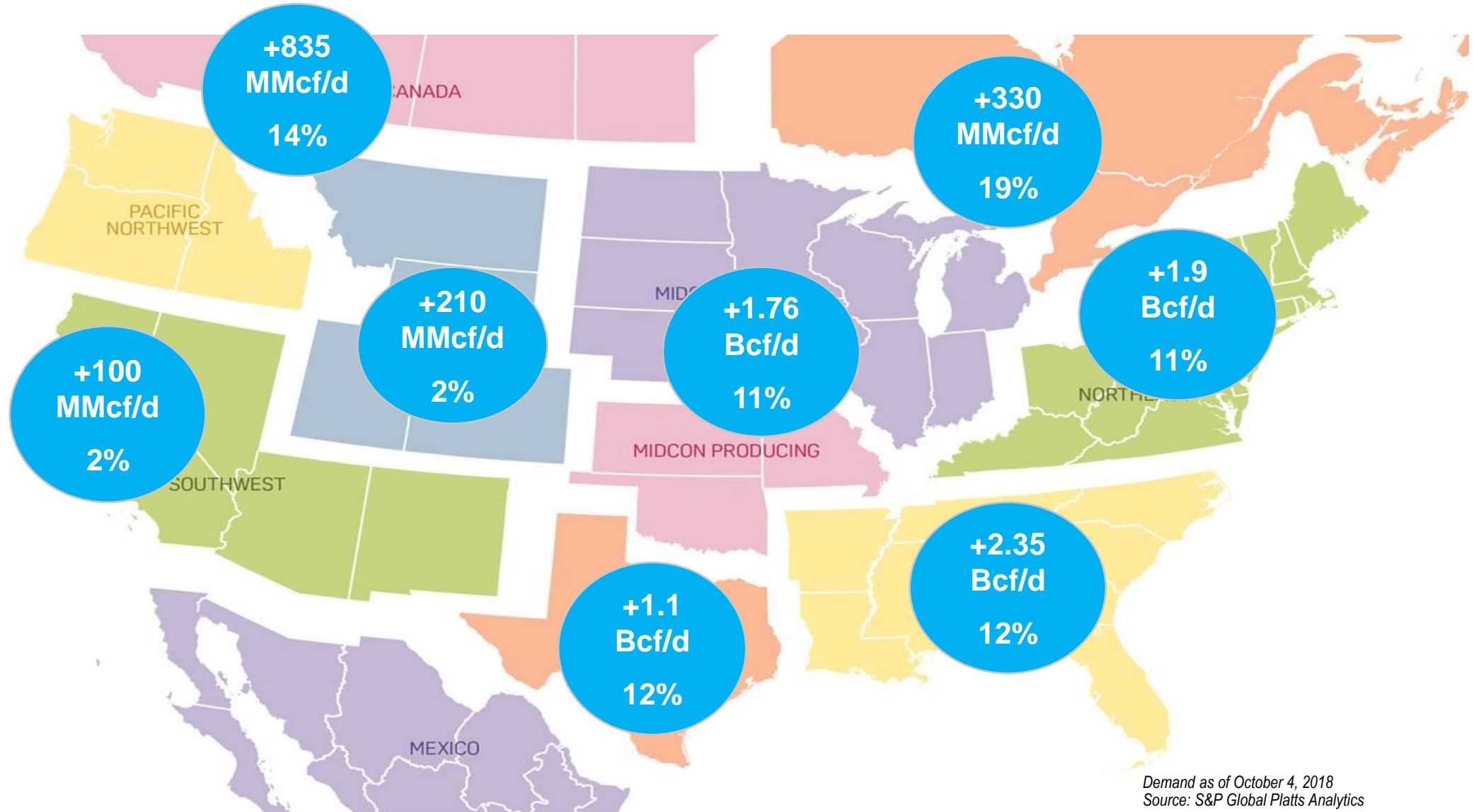
Storage...a good starting point

National Storage Stocks, 2016- Present



Source: US Energy Information Administration
Data as of week ending September 21

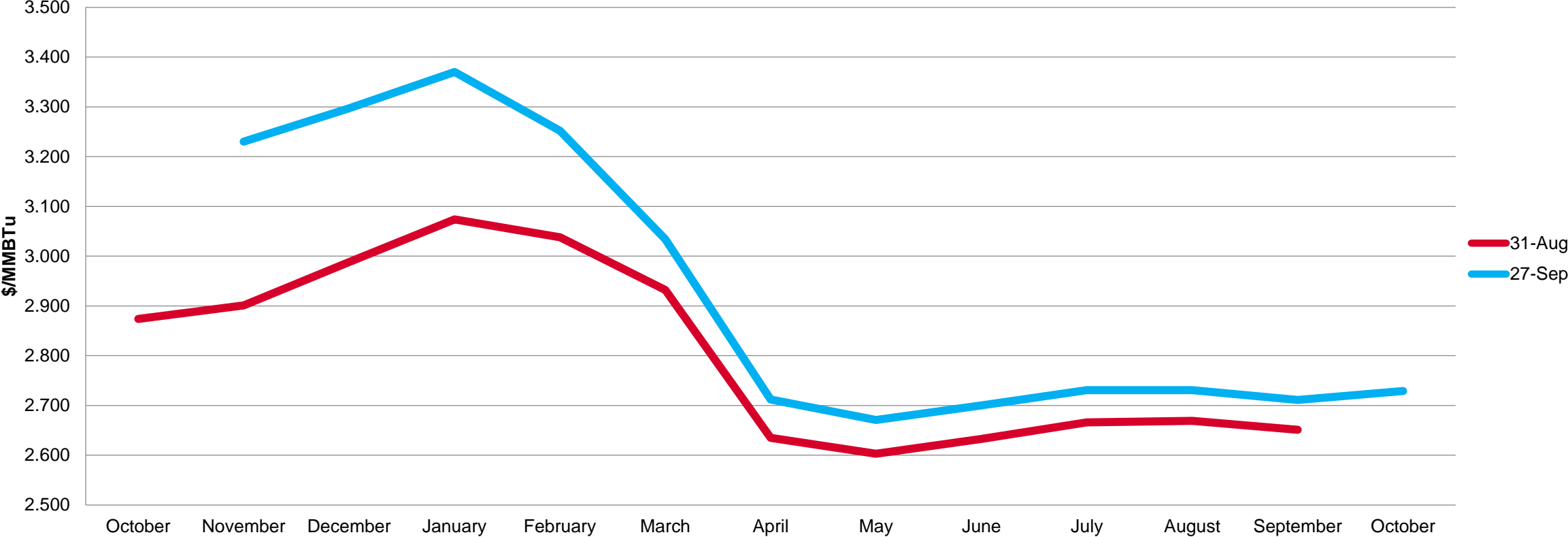
2018 demand...all indications point to the bulls...



Demand as of October 4, 2018
Source: S&P Global Platts Analytics

Sleep Walking to Winter?: NYMEX Budes...

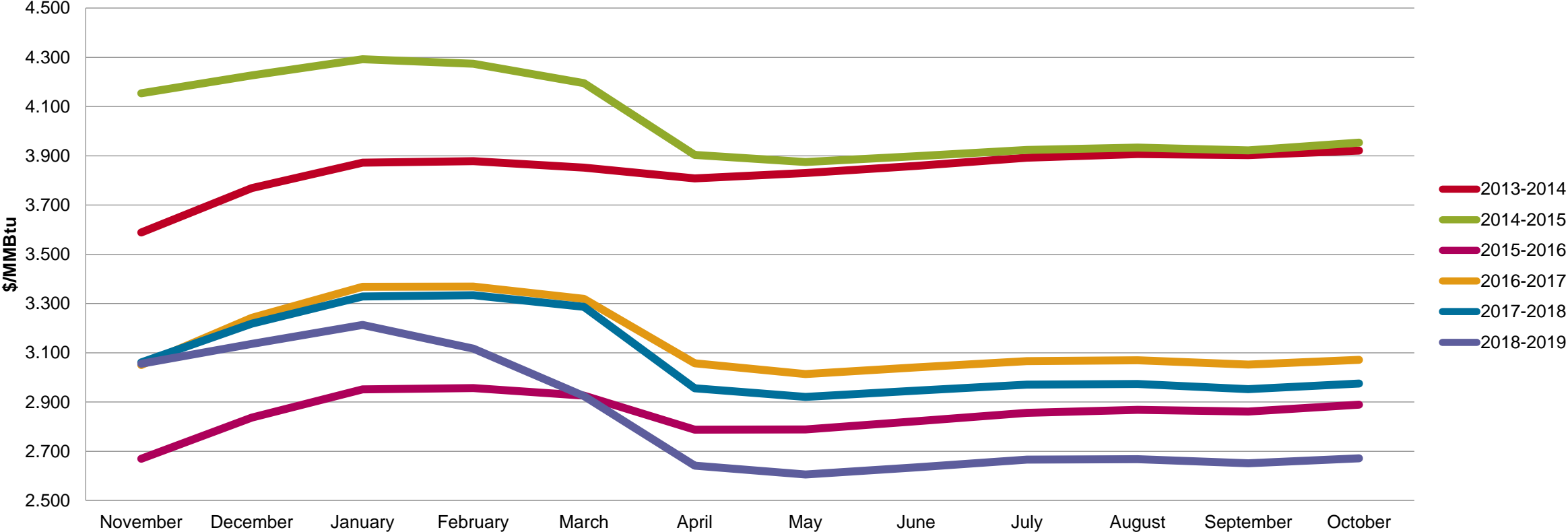
Dec-Jan contracts gain 10%



Source: S&P Global Platts, CME

Increasingly Abundant Supply Eliminates Volatility

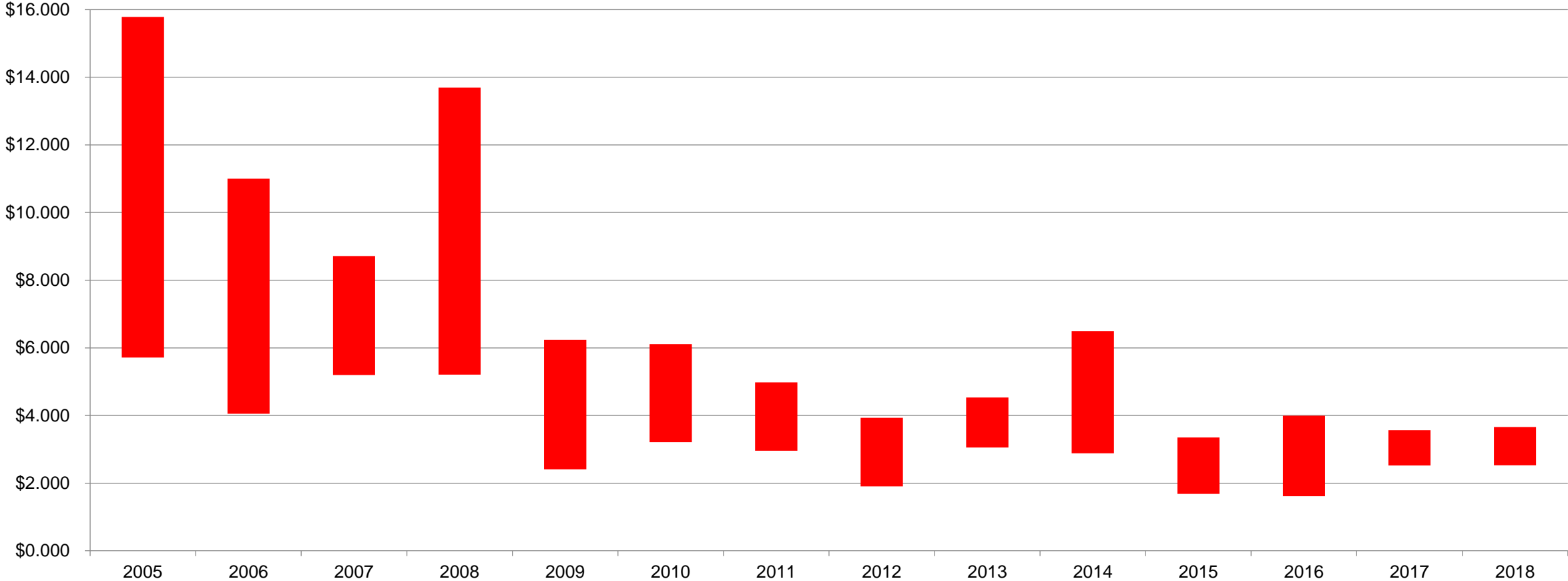
NYMEX Curves Entering Winter, 2013-2018



Source: S&P Global Platts
12-Month Curve as of end of September

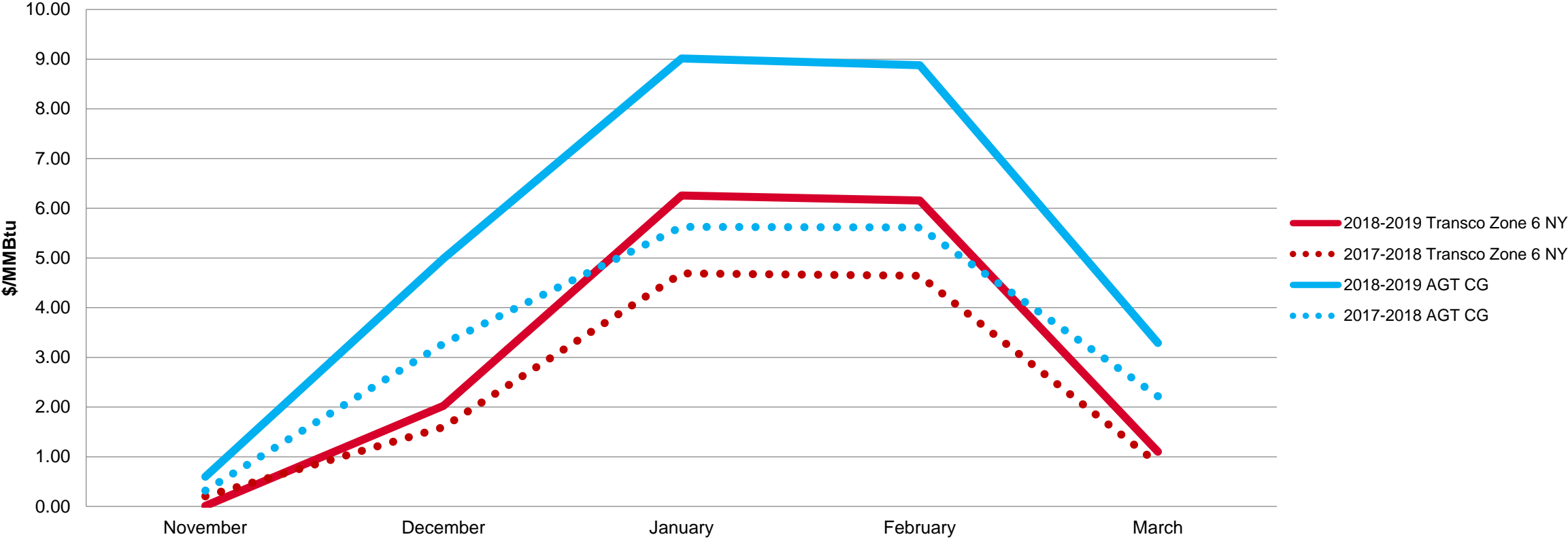
NYMEX Historical Volatility...increasingly range bound

Production increases 45% from 2008



Northeast Eyeing an Undersupplied Winter...

Premium Northeast Points Eyeing Highest Level since 2015-2016 Winter

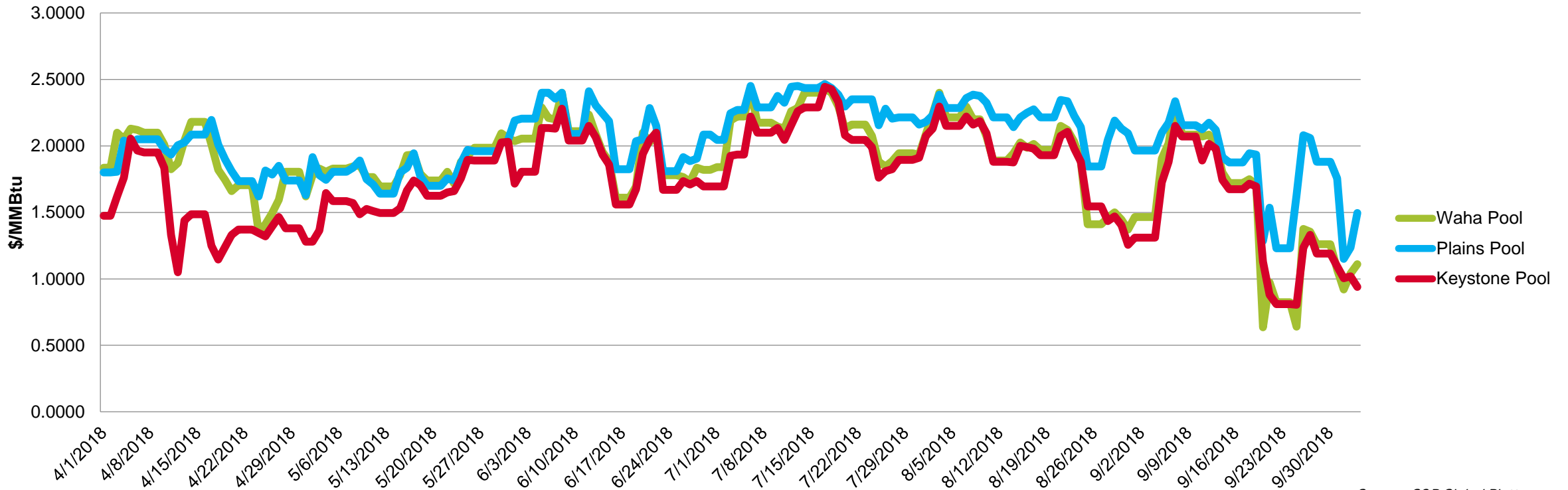


Note: Winter strip as of October 1, 2018
Source: S&P Global Platts

El Paso, Permian: Constrained or Fundamental Shift?

As Permian gas grows, so does differential among pools

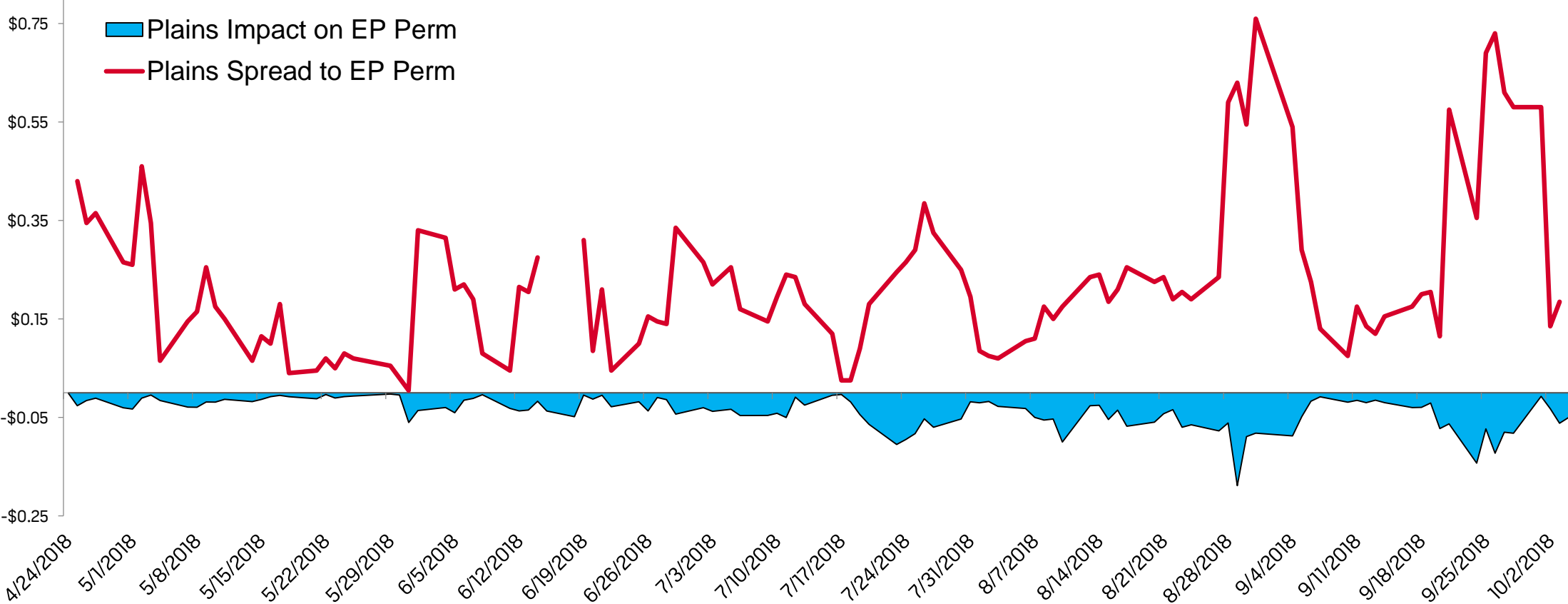
Plains Pool Diverges April-October, 2018



Source: S&P Global Platts

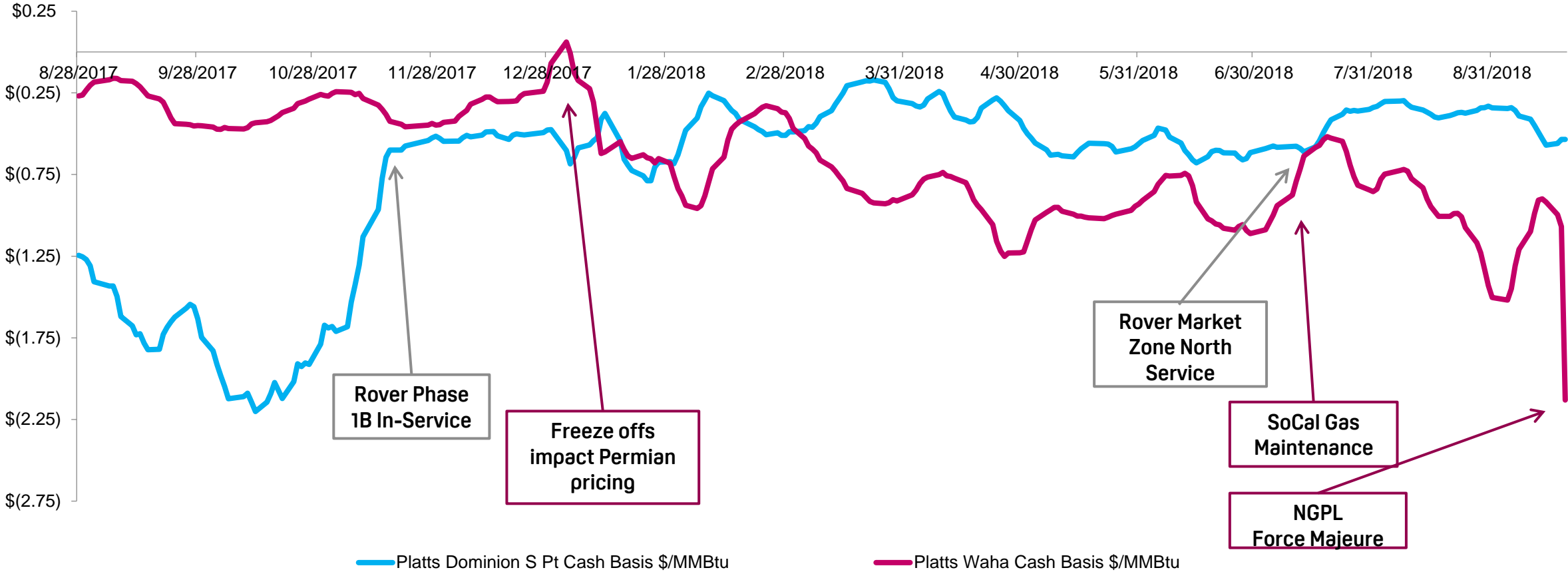
Key question: With downstream export and infrastructure growth, will this persist?

Plains Pool Wreaks Havoc on El Paso, Permian Pricing



Source: S&P Global Platts

Dominion South 2.0...Waha pricing at mercy of demand and constraints



Source: S&P Global Platts

SoCal Bidweek Pricing...Winter Levels Kick in Early

SOUTHERN CALIFORNIA GAS SYSTEM FACILITIES

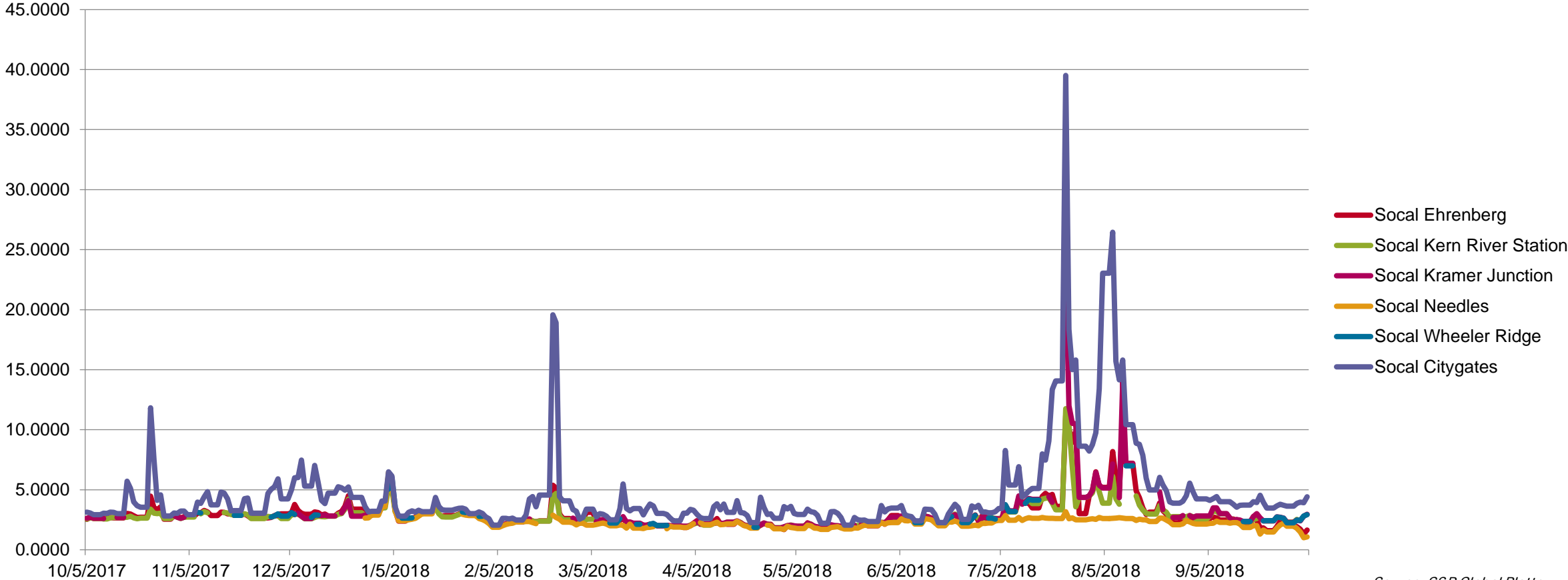


- SoCal CG October bidweek price at highest level since Oct. 2014
- SoCal winter strip trading \$1.87/MMBtu above year ago levels
- Aliso Canyon limited to 34 Bcf in total storage
- So close, but so far: Waha October bidweek settled at the lowest level on record at \$1.21/MMBtu

Source: S&P Global Platts Analytics
Gas Daily, September 25, 2018

Downstream of Permian: SoCal Market

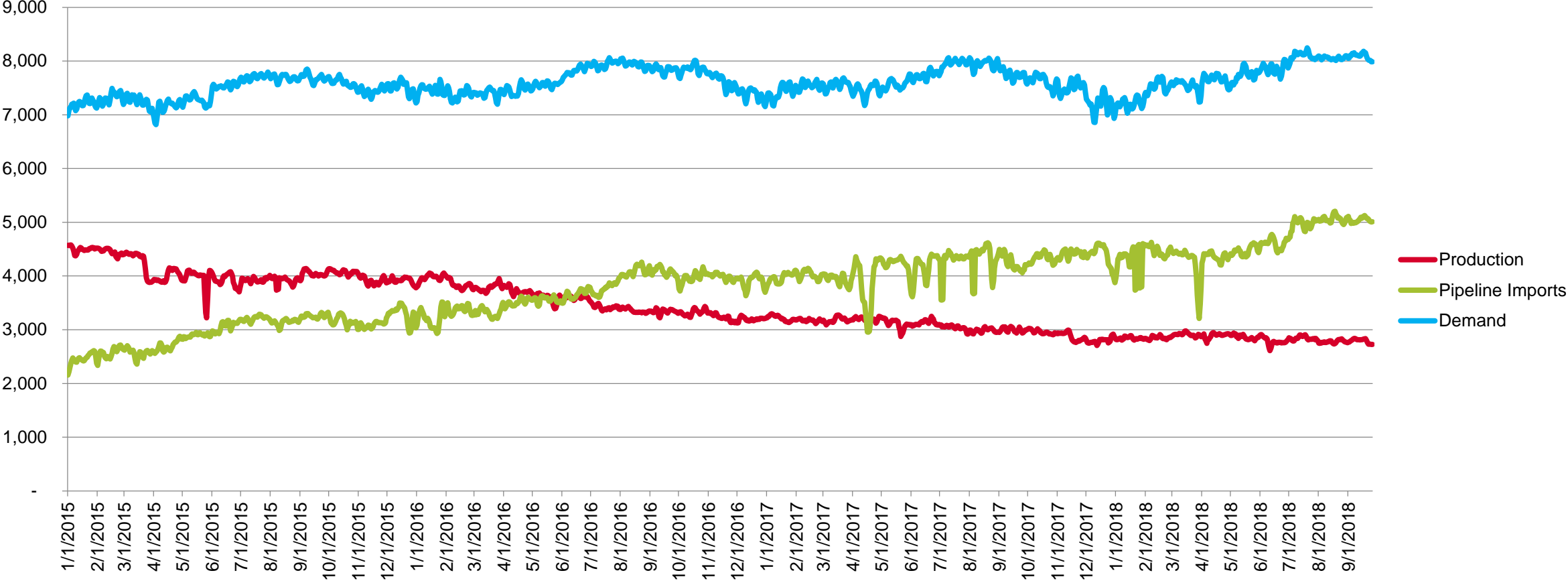
Constraints result in very different pricing occurrence



Methodology point: Needles averaged \$8/MMBtu below Ehrenberg and Kramer Junction while comprising 30% of the SoCal Gas index

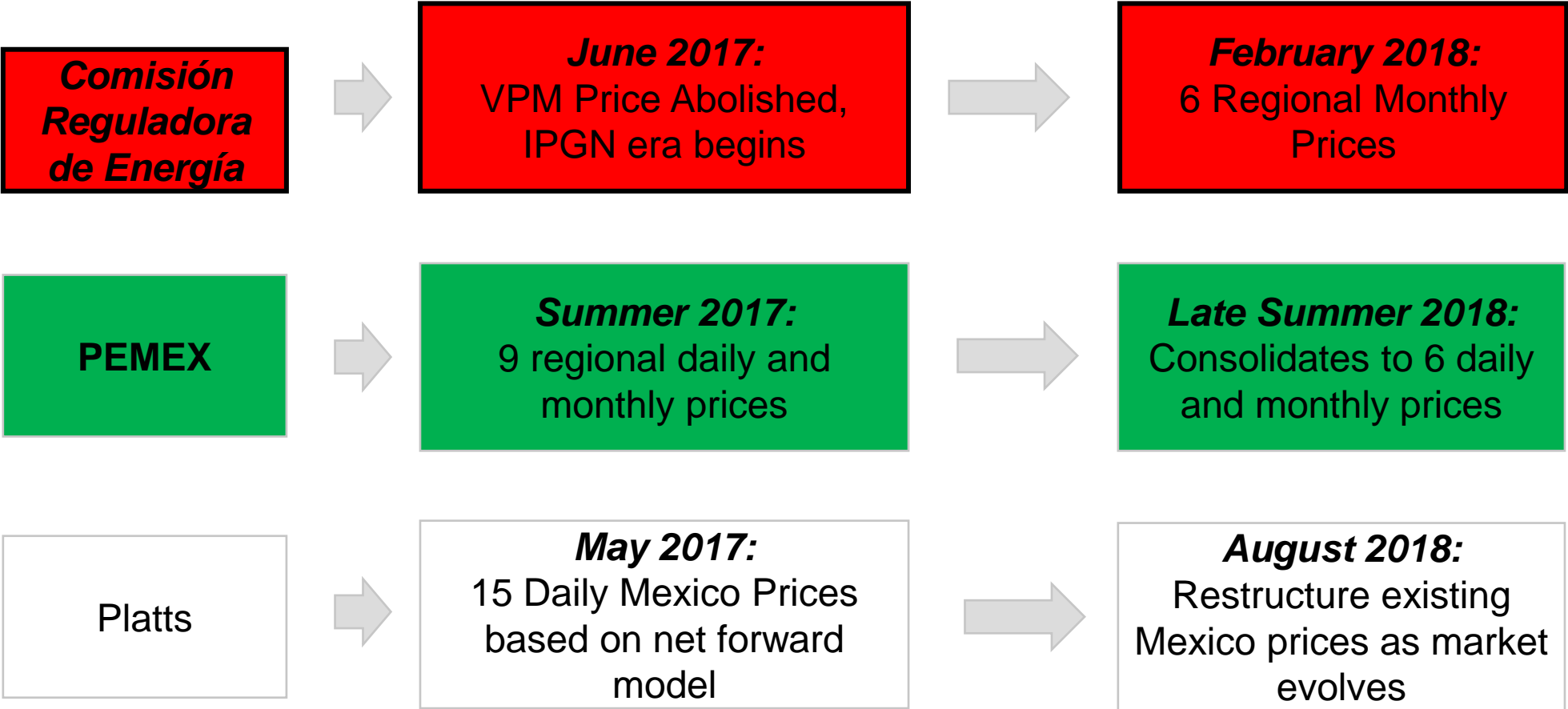
Mexico Pricing Dynamics: A Post VPM Environment

A Crash Course: Mexico Energy Reform



Source: S&P Global Platts Analytics

Mexico Pricing Developments: A Post VPM Environment



Platts Mexico: The development of the net forward model



- Multiple evolutions in Mexican gas pricing have occurred in last year
- Platts began publishing net forward prices in May 2017 at 15 locations
- Platts Mexico daily are net forward prices from Platts South and WTX benchmarks
- Modeled prices are first step in a pricing evolution
- Goal is to have support of market participants in index development through submissions

Mexico Daily Prices Evolve as the Market Does



The Platts Plug: Methodology Session Tomorrow at 9am!

- Deep dive on Platts natural gas methodology
- In depth session on new Platts-ICE Natural Gas Index announced in late September
- Shifting Permian Pricing Dynamics: Upstream and downstream of WTX
- Impacts beyond Permian: Northwest, S. of Green River
- Evolution of Platts Mexico pricing

Thank you



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