

Outlook on Energy and What to Expect from President Elect Trump

Presentation to:
University Hills Rotary Club

By:
John Harpole



November 11, 2016



May 13th, 1966



Thank you, Rotary Club!



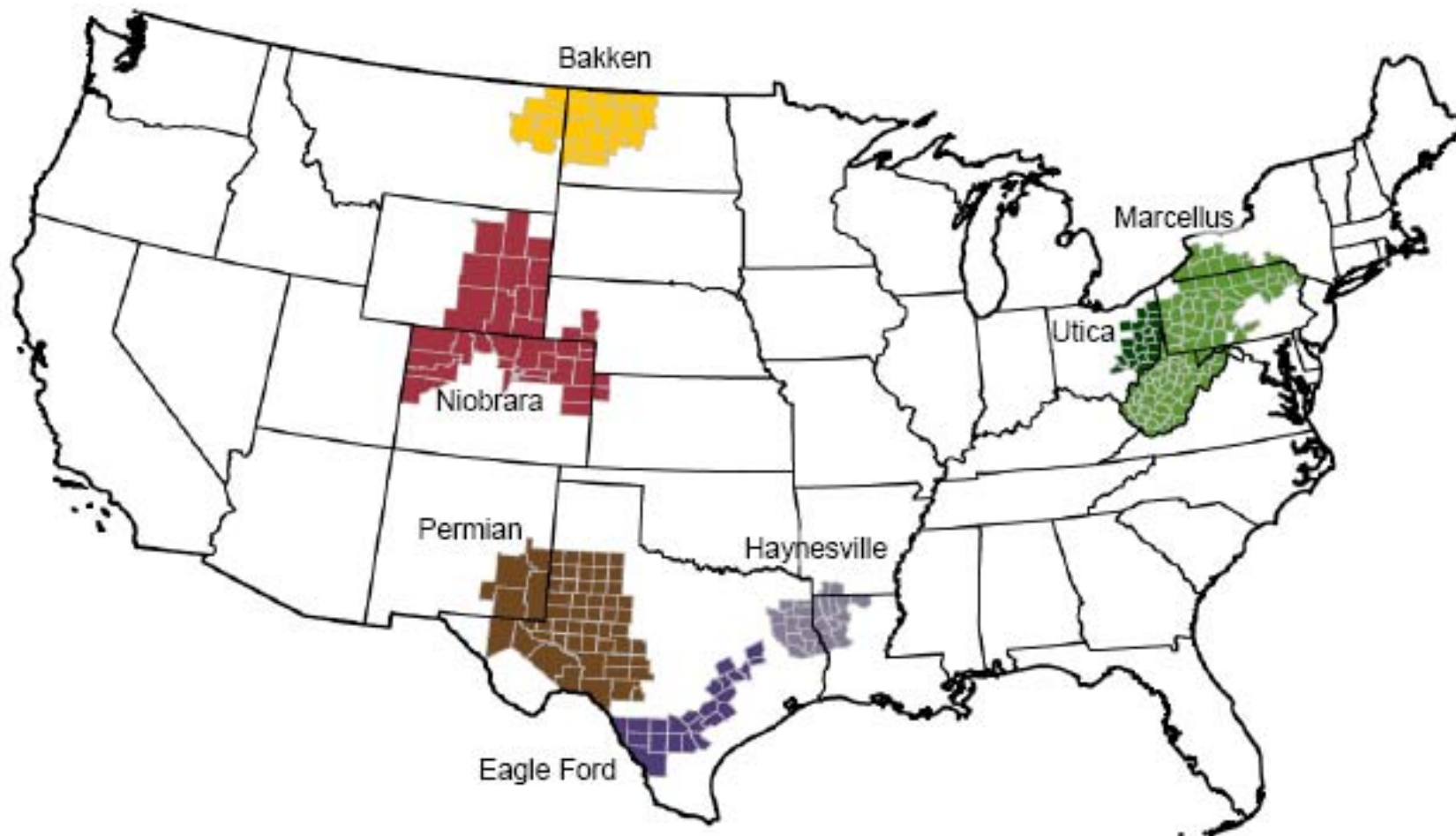
What Happened?

- Thanks to hydraulic fracturing, horizontal drilling and private property ownership of minerals, the world should no longer live under the threat of energy insecurity.
- Energy once scarce, is now super-abundant and that reality will continue to change the world as transportation issues are remedied.

What Happened? A Global Perspective

- US oil supply rose
- Unexpected large supply growth out of Iraq
- The decline in U.S. drilling cannot unilaterally impact the world price for oil
- It is all about the global economy...China is the key

The seven regions shown below account for 92% of domestic oil production growth and all domestic natural gas production growth during 2011-14.

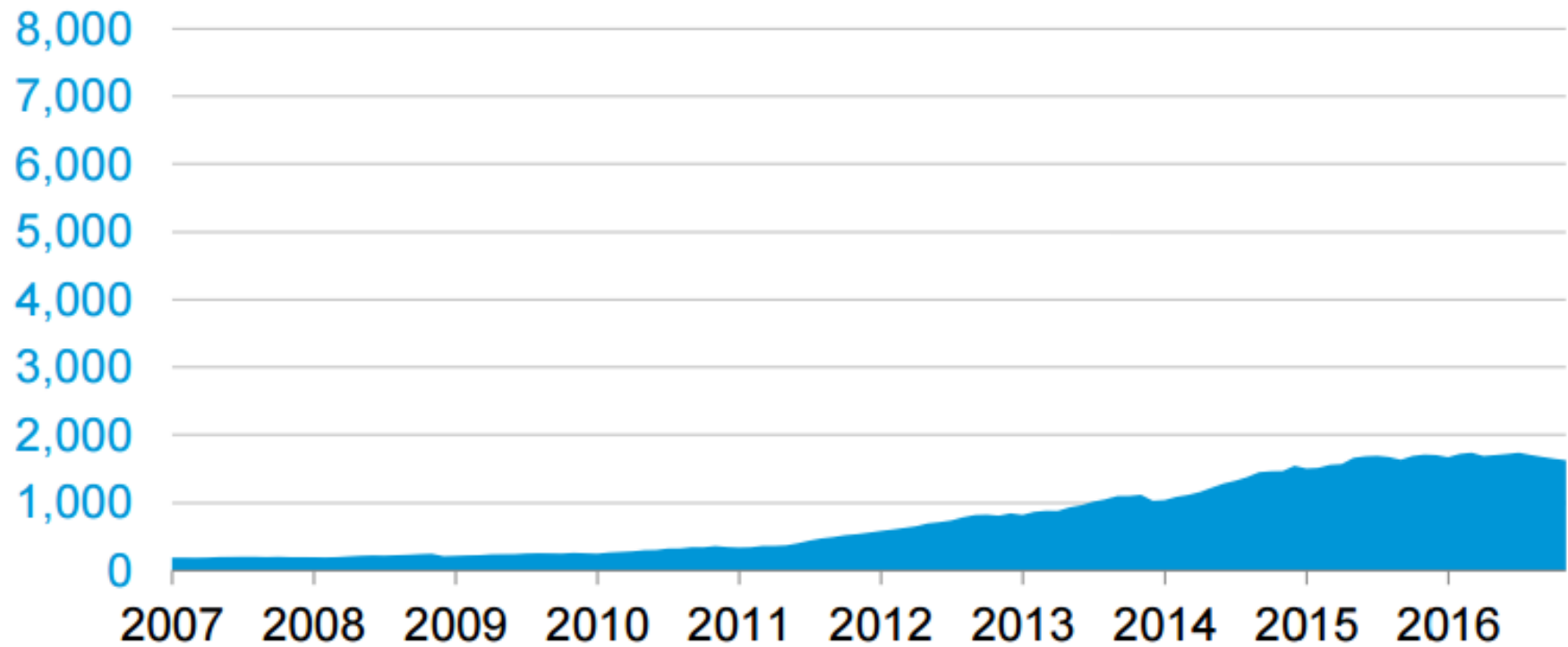


As of October 2016

Bakken Region Natural gas production

million cubic feet/day

Gas -23
million cubic feet/day
month over month



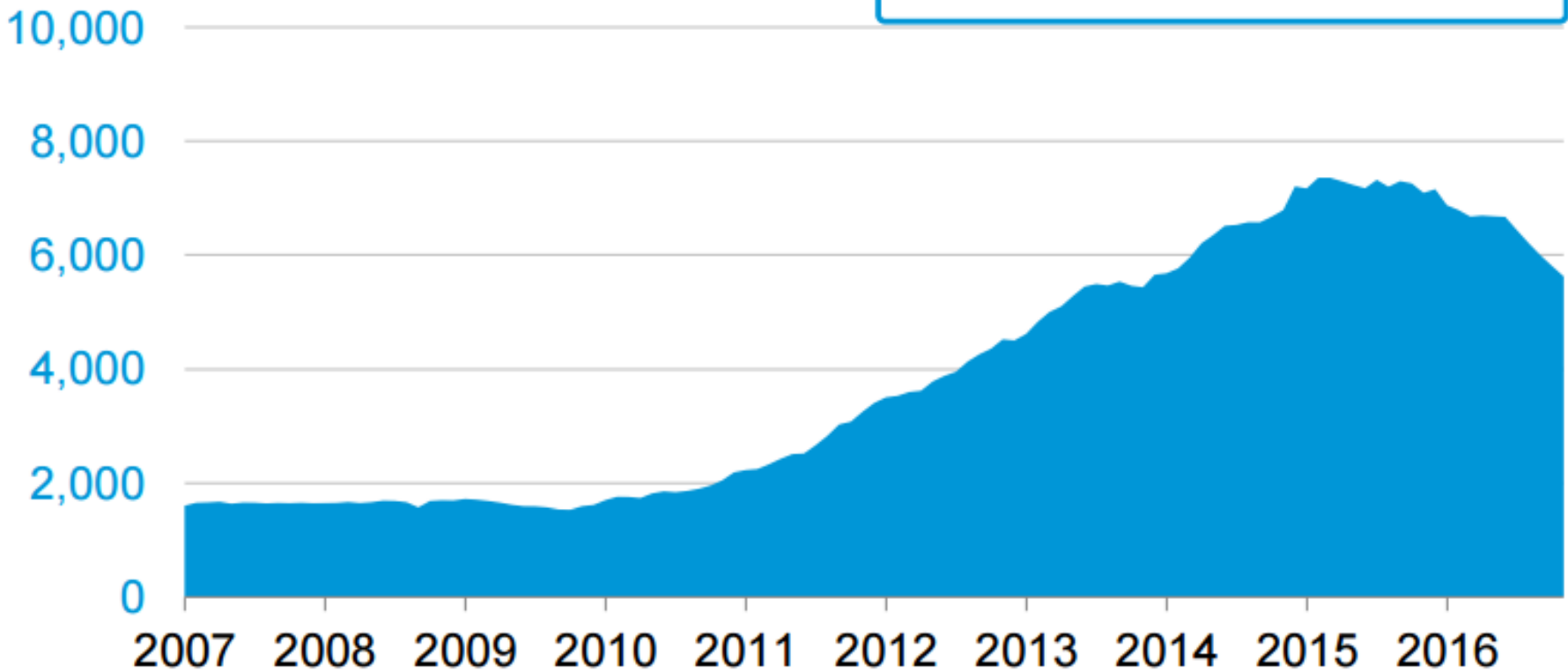
Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Eagle Ford Region Natural gas production

million cubic feet/day

Gas -183
million cubic feet/day
month over month

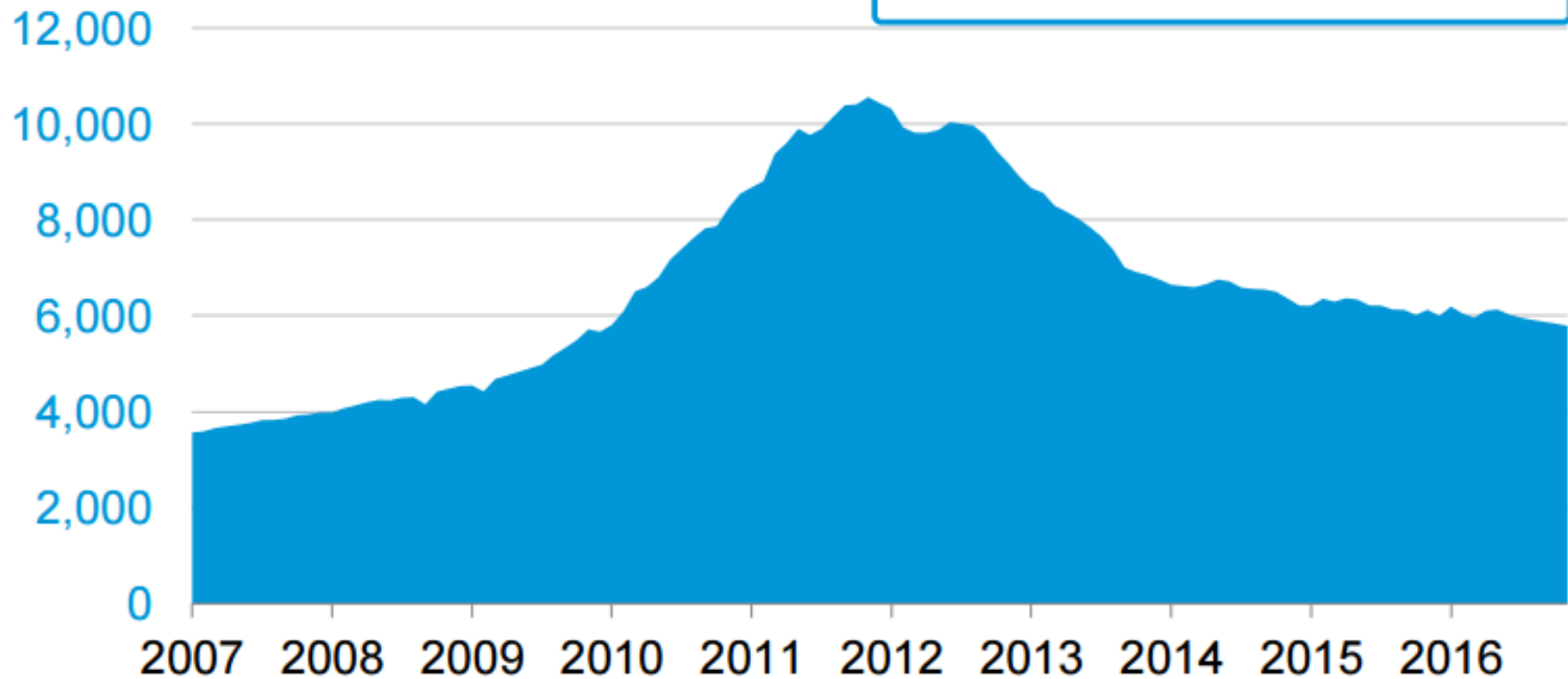


Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Haynesville Region Natural gas production

million cubic feet/day



Gas -45
million cubic feet/day
month over month



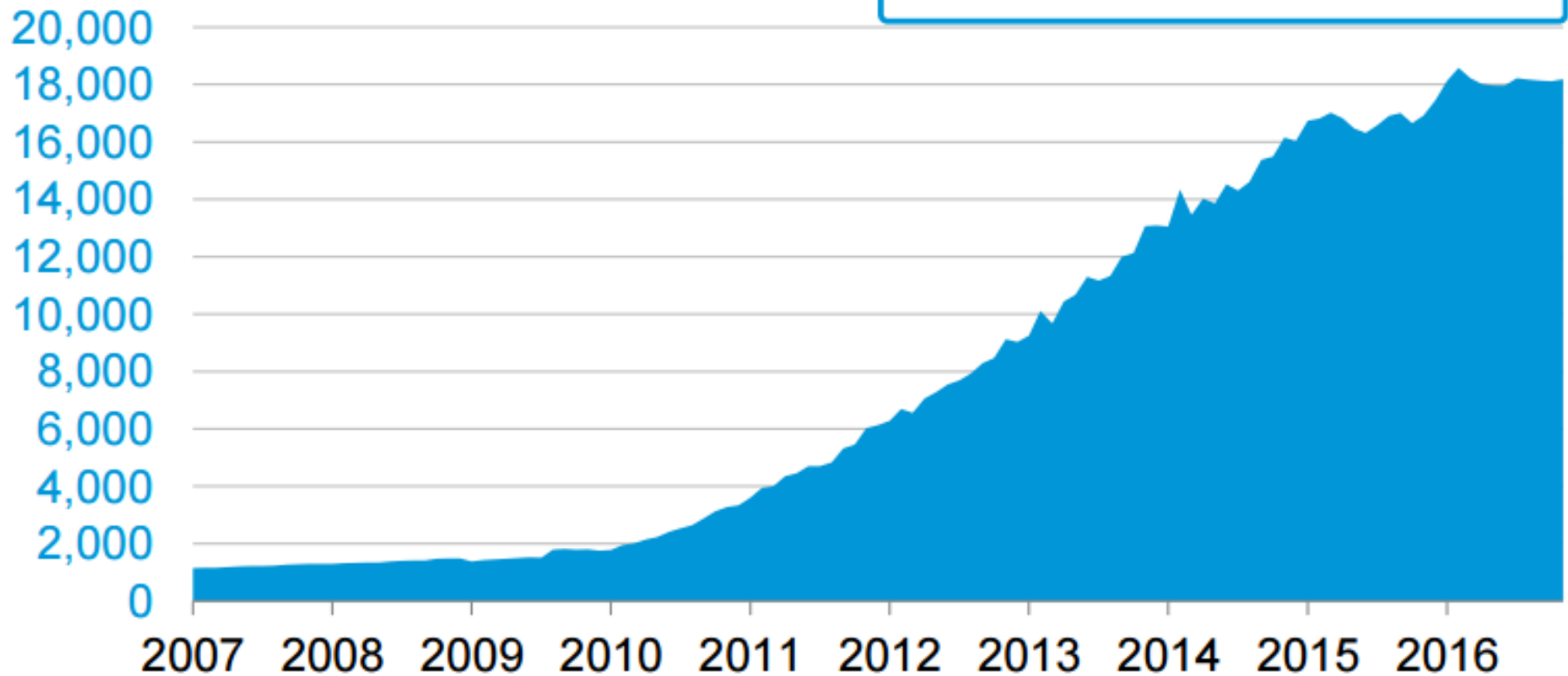
Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Marcellus Region Natural gas production

million cubic feet/day

Gas +73
million cubic feet/day
month over month



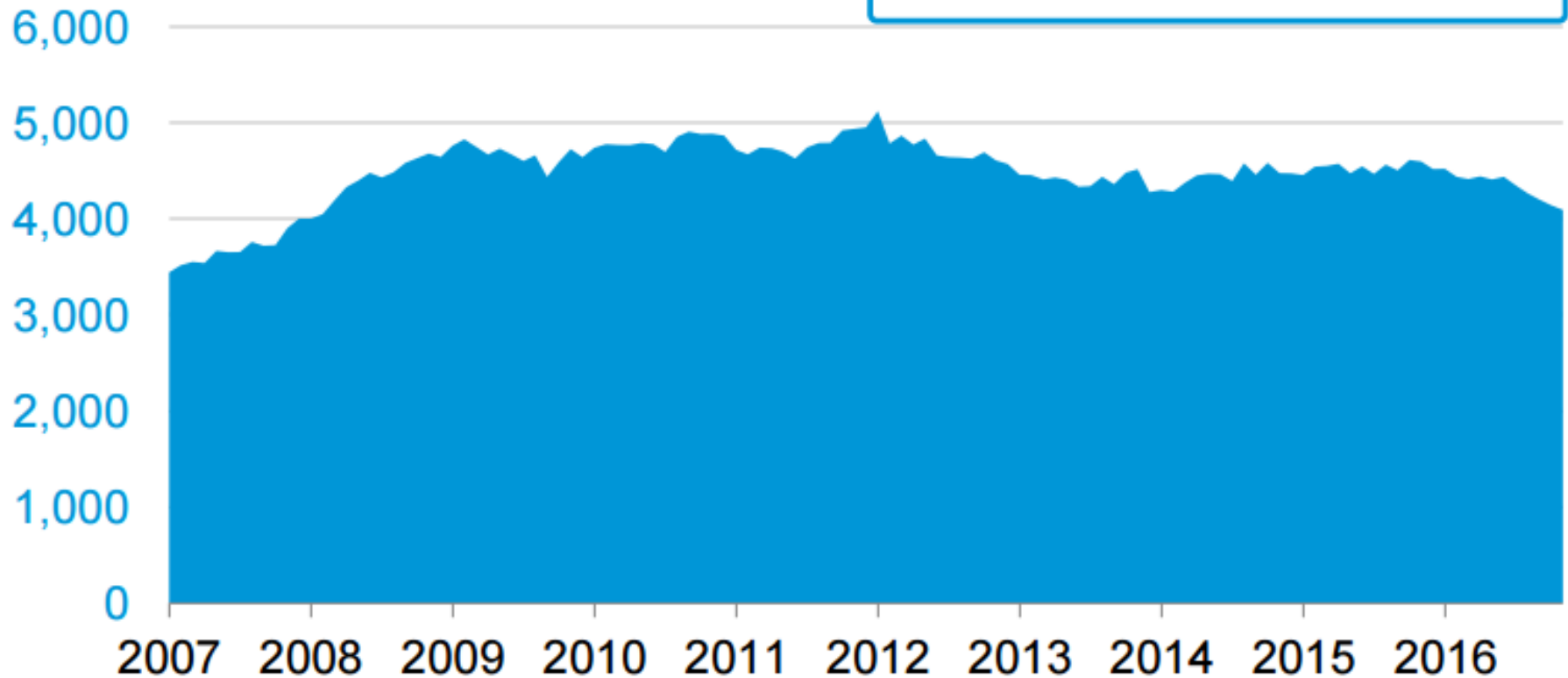
Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Niobrara Region Natural gas production

million cubic feet/day

Gas -48
million cubic feet/day
month over month



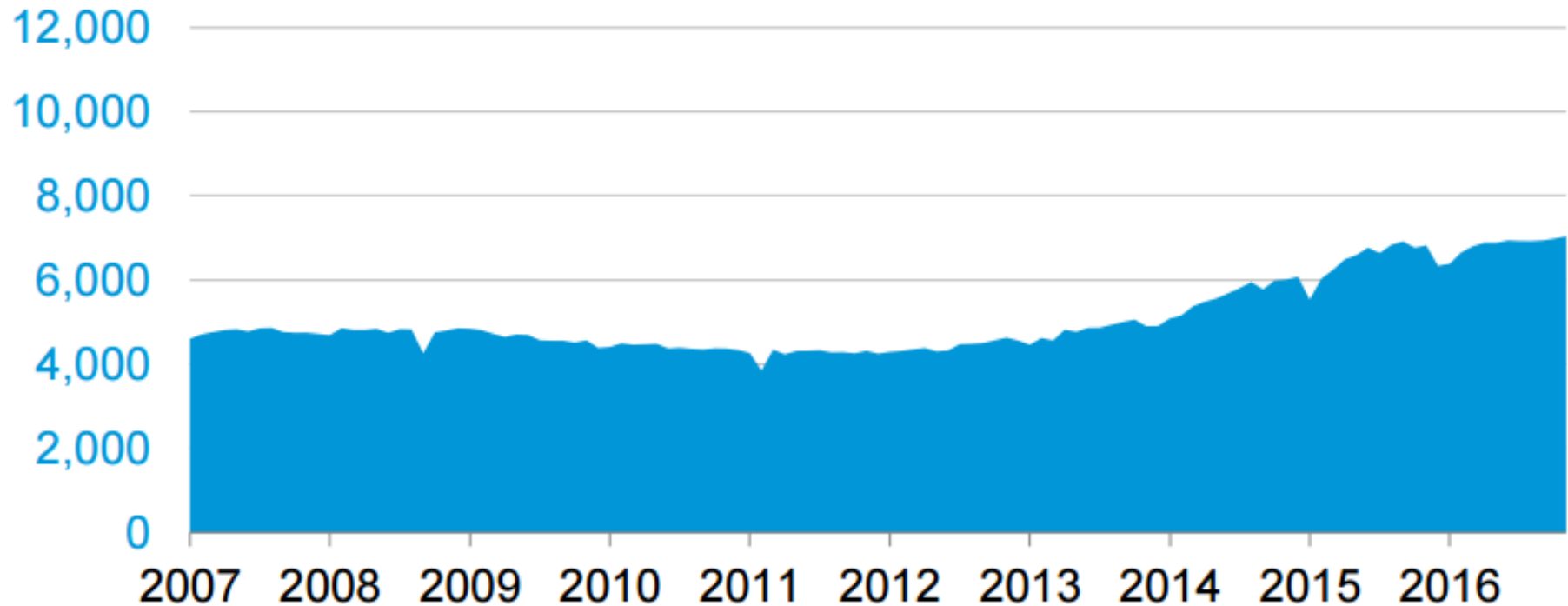
Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Permian Region Natural gas production

million cubic feet/day

Gas +58
million cubic feet/day
month over month

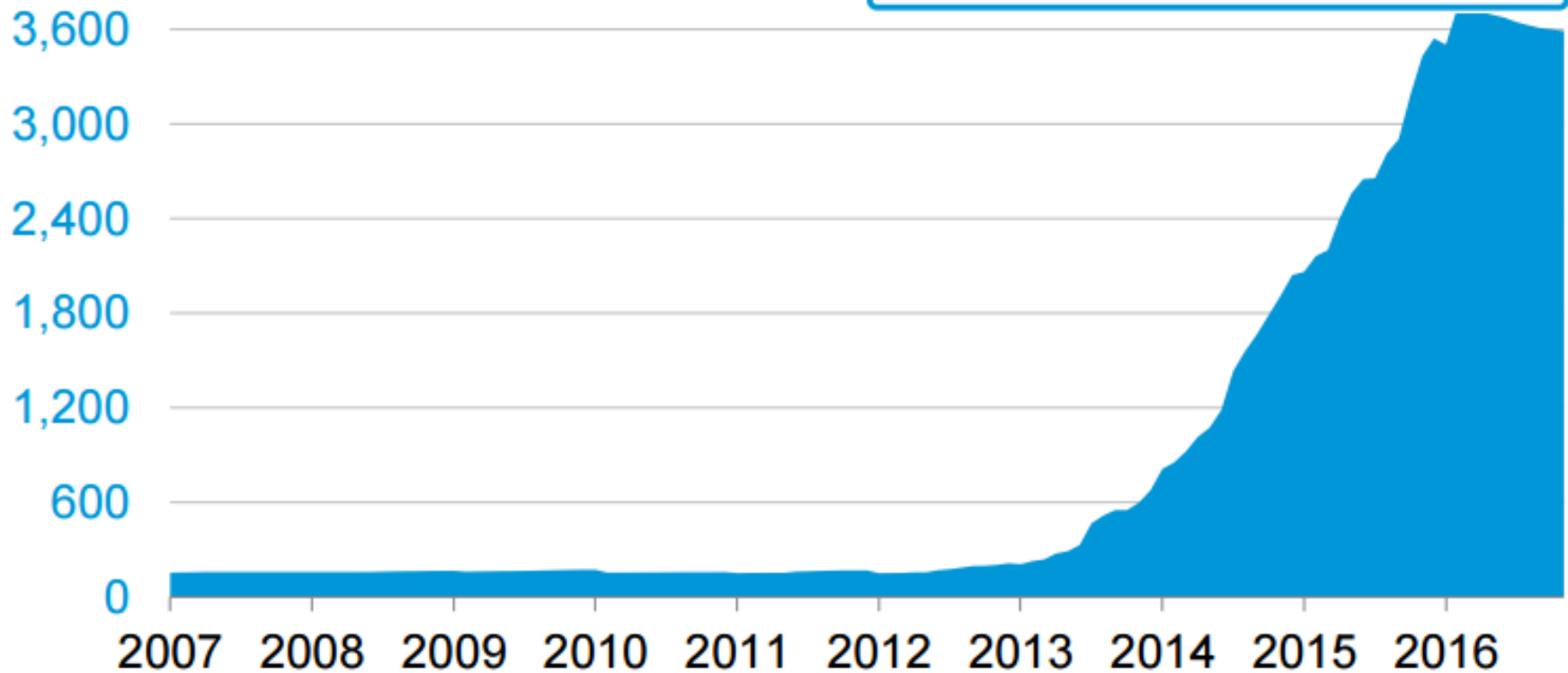


Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

As of October 2016

Utica Region Natural gas production

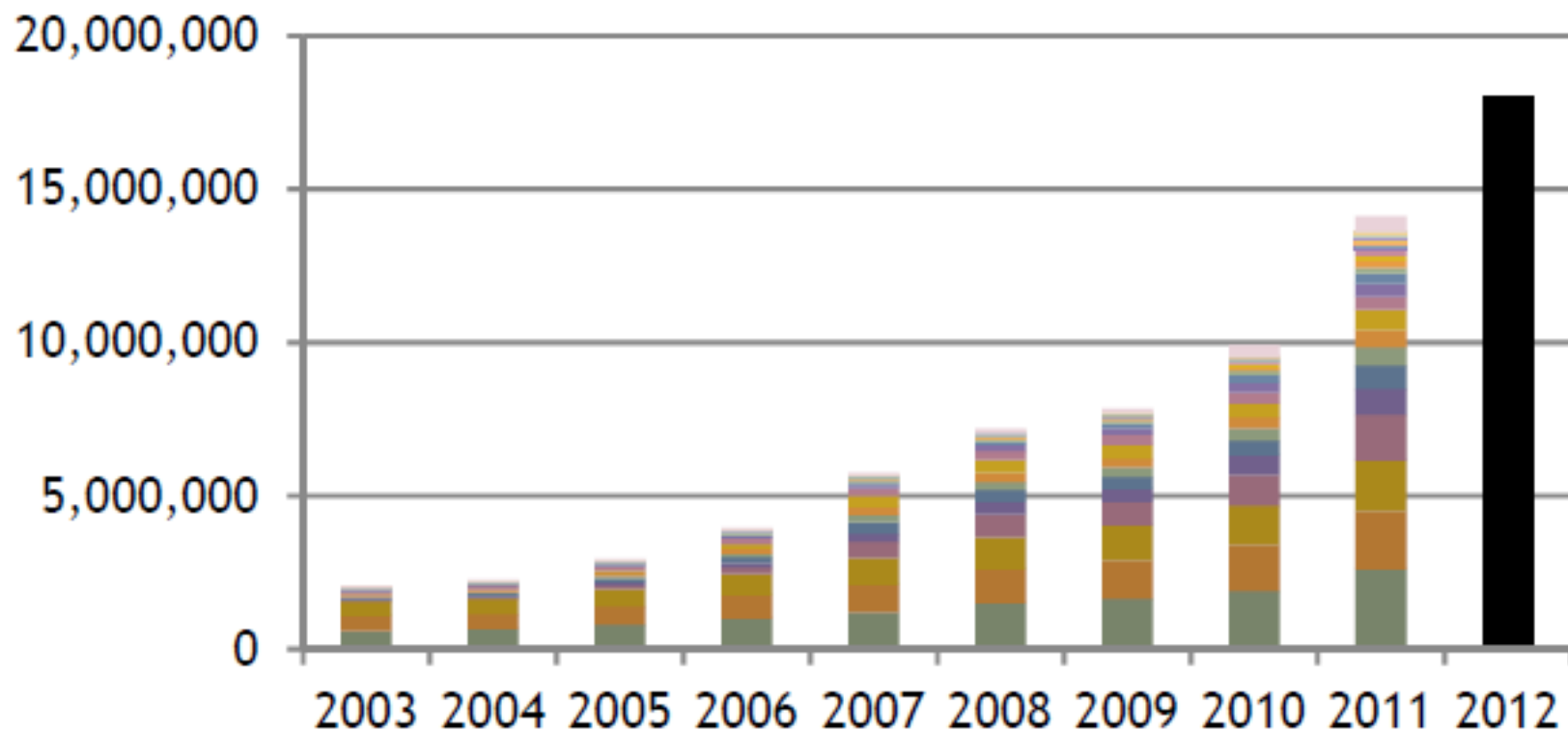
million cubic feet/day



Source: Drilling Productivity Report, EIA U.S. Energy Information Administration, October 2016

Fracturing Application Exploded

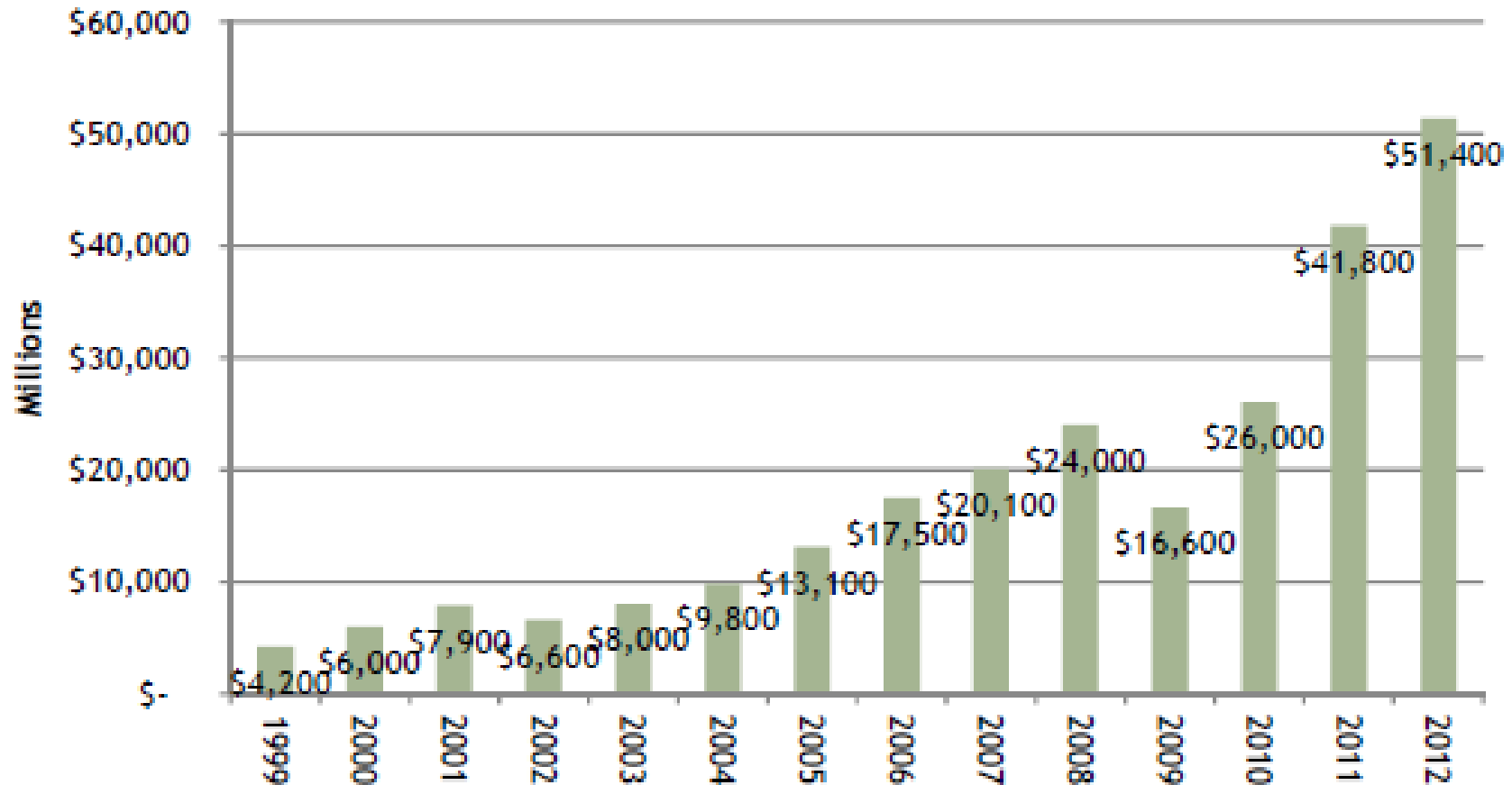
North American Frac Horsepower



Source: Chris Wright, Liberty Resources Tuesday Lunch Club Presentation, 3/5/13

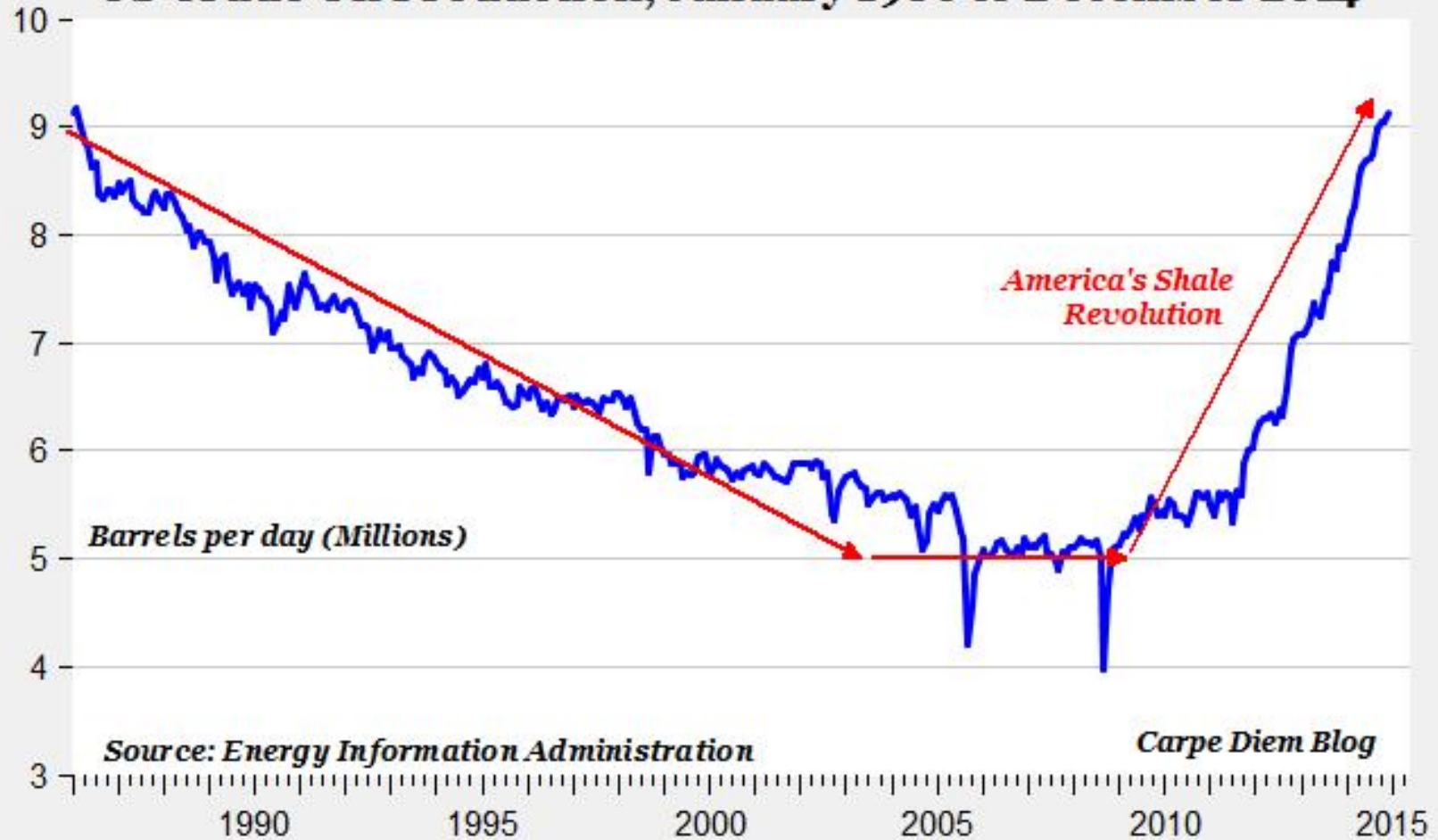
10-fold growth in 10 years

Pressure Pumping Services



Source: Chris Wright, Liberty Resources Tuesday Lunch Club Presentation, 3/5/13

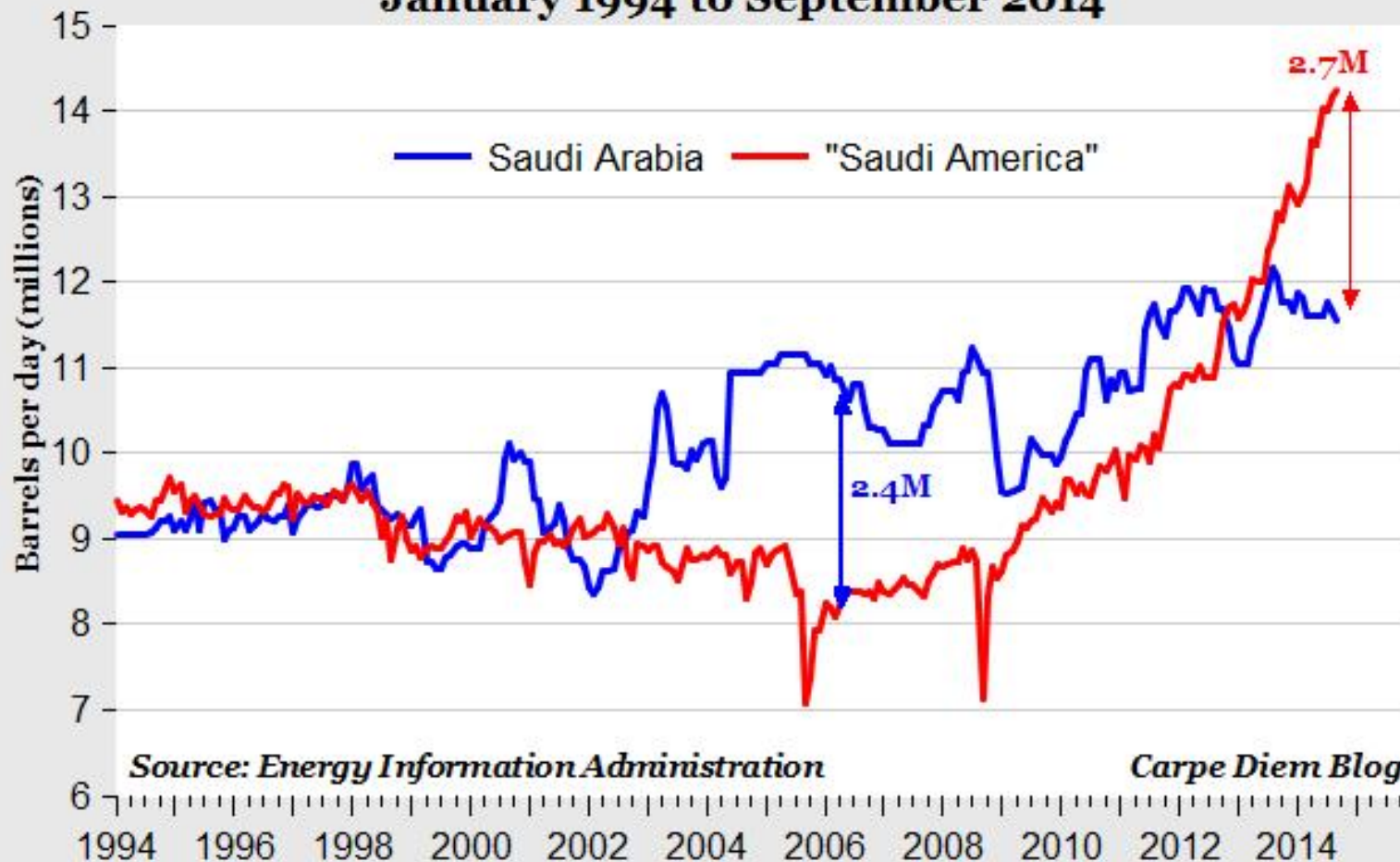
US Crude Oil Production, January 1986 to December 2014



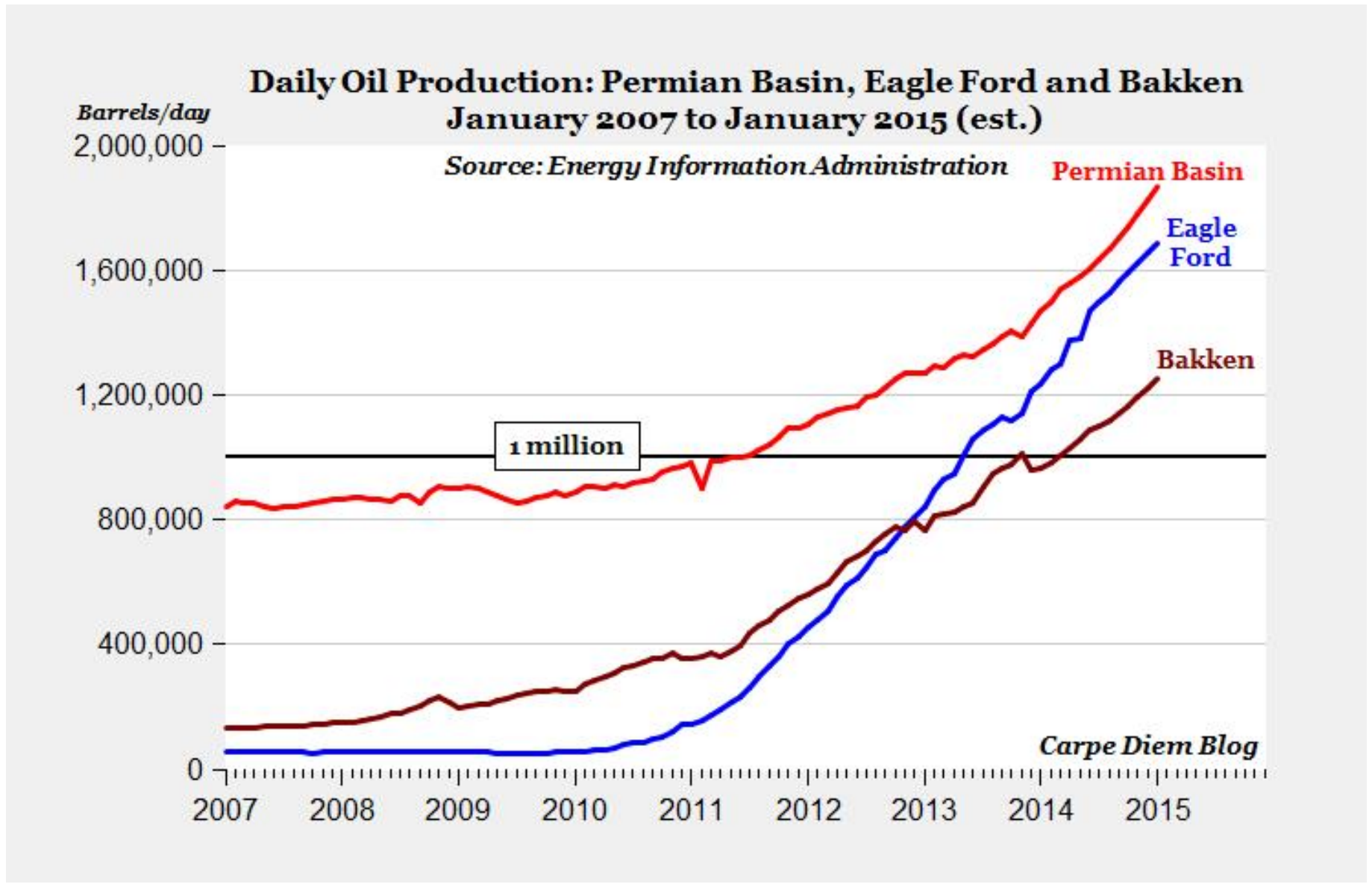
Source: My top ten energy charts of the year for 2014, Mark J. Perry, American Enterprise Institute, January 5, 2015

Mercator Energy

Total Petroleum Production: Saudi Arabia vs. US January 1994 to September 2014

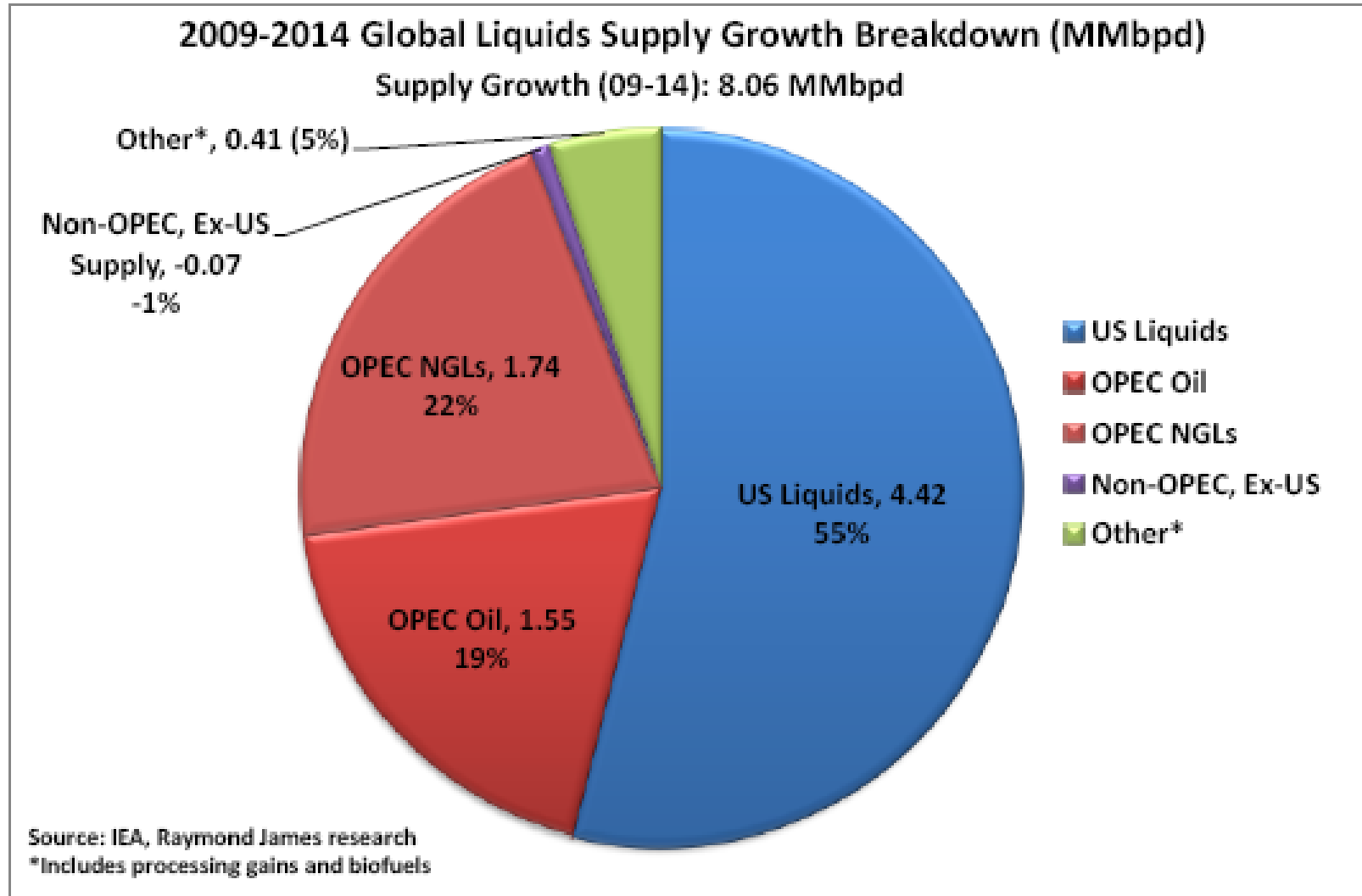


Source: My top ten energy charts of the year for 2014, Mark J. Perry, American Enterprise Institute, January 5, 2015



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The House of Saud's Motivation



Source: Raymond James U.S. Research Energy Report, January 12, 2015

OPEC's Strategy?

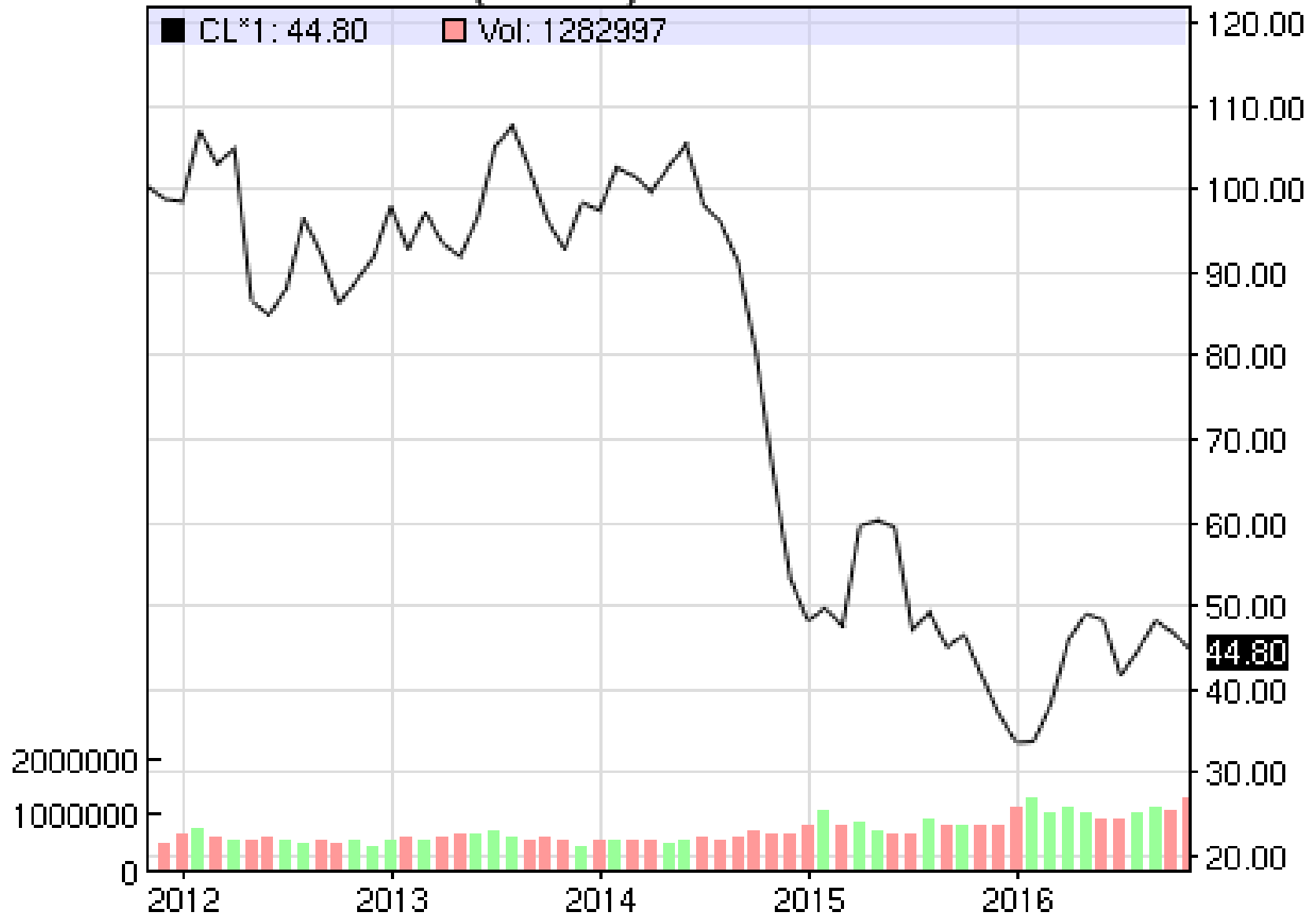
“In 2016, when OPEC *completes this objective of cleaning up the American marginal market*, the oil price will start growing again,” said Fedun, who’s made a fortune of more than \$4 billion in the oil business, according to data compiled by Bloomberg. *“The shale boom is on a par with the dot-com boom. The strong players will remain, the weak ones will vanish.”*”

Quoted November 28, 2014

Leonid Fedun, VP and Board Member at OAO Lukoil (LKOD)

Source: *OPEC Policy Ensures U.S. Shale Crash, Russian Tycoon Says*, Asst Natl Dir Melony B. DeFord, Tea Party Command Center, November 28, 2014

CLZ11 - Crude Oil WTI (NYMEX)



Source: Nasdaq.com, End of day Commodity Futures Price Quotes for Crude Oil WTI (NYMEX)

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Oil price break even point

US\$ per barrel

\$37.11 Price on 29 December

Libya	208
Venezuela*	120
Ecuador	115
Nigeria	100
Saudi Arabia	96
Algeria	93
Angola	77
Iraq	76
Iran	70
UAE	68
Qatar	58
Kuwait	52

*Venezuela could be as high as \$200

Guardian graphic

Source: IMF/Economist Intelligence Unit/Bloomberg



Source: *Recession, retrenchment, revolution? Impact of low crude prices on oil powers*, The Guardian, December 30, 2015

Mercator Energy

How Bad is it?

According to data compiled by Bloomberg, *“prices have dropped below the level needed by at least 9 OPEC member states to balance their budgets.”*



Survival of fittest as oil tumbles below \$65, Bloomberg News, December 1, 2014

Mercator Energy

The Venezuela Story

“The picture does not look pretty for Venezuela. The macroeconomic crisis will likely get worse for lack of adjustment in an election year ... There may be more **political instability**. The legislative elections should produce a majority for the opposition that could intensify the confrontation and might lead to a push to recall the president in a referendum in 2016-17. **Street protests are likely to increase as the economy continues to collapse.**”

Source: *The Implications of the Decline in Oil Prices on the Economics, Politics and Oil Industry of Venezuela*, Francisco Monaldi, Center on Global Energy Policy, Columbia SIPA, September 2015

The Nigerian Story

- Nigeria is Africa's top oil producer
- World Bank estimates crude sales fund about 75% of the country's budget
- In the £19.8 billion budget proposal, the government plans to increase spending by about one quarter over last year's budget
 - Paid for by improving tax collection and cutting the cost of government
- Budget includes £1.65 billion for cash transfers to poor Nigerians
 - This program was a **campaign promise** of the president, Muhammadu Buhari (elected in March) on a platform of cutting corruption and weaning Nigeria's economy off oil revenue dependence
- Some analysts think **the proposed budget is unrealistic during times of \$40 oil**



Source: *Recession, retrenchment, revolution? Impact of low crude prices on oil powers*, The Guardian, December 30, 2015

His Energy Policy?



Cardboard cut-out?



Here's proof.





President Elect Trump's First Energy Plan

(according to his campaign website)

- Make America energy independent, create millions of new jobs, and protect clean air and clean water ... conserve natural habitats, reserves and resources ... unleash an energy revolution that will bring vast new wealth to our country
- Declare American energy dominance a strategic economic and foreign policy goal of the United States
- Unleash America's \$50 trillion in untapped shale, oil, and natural gas reserves, plus hundreds of years in clean coal reserves

Source: www.donaldjtrump.com

President Elect Trump's First Energy Plan

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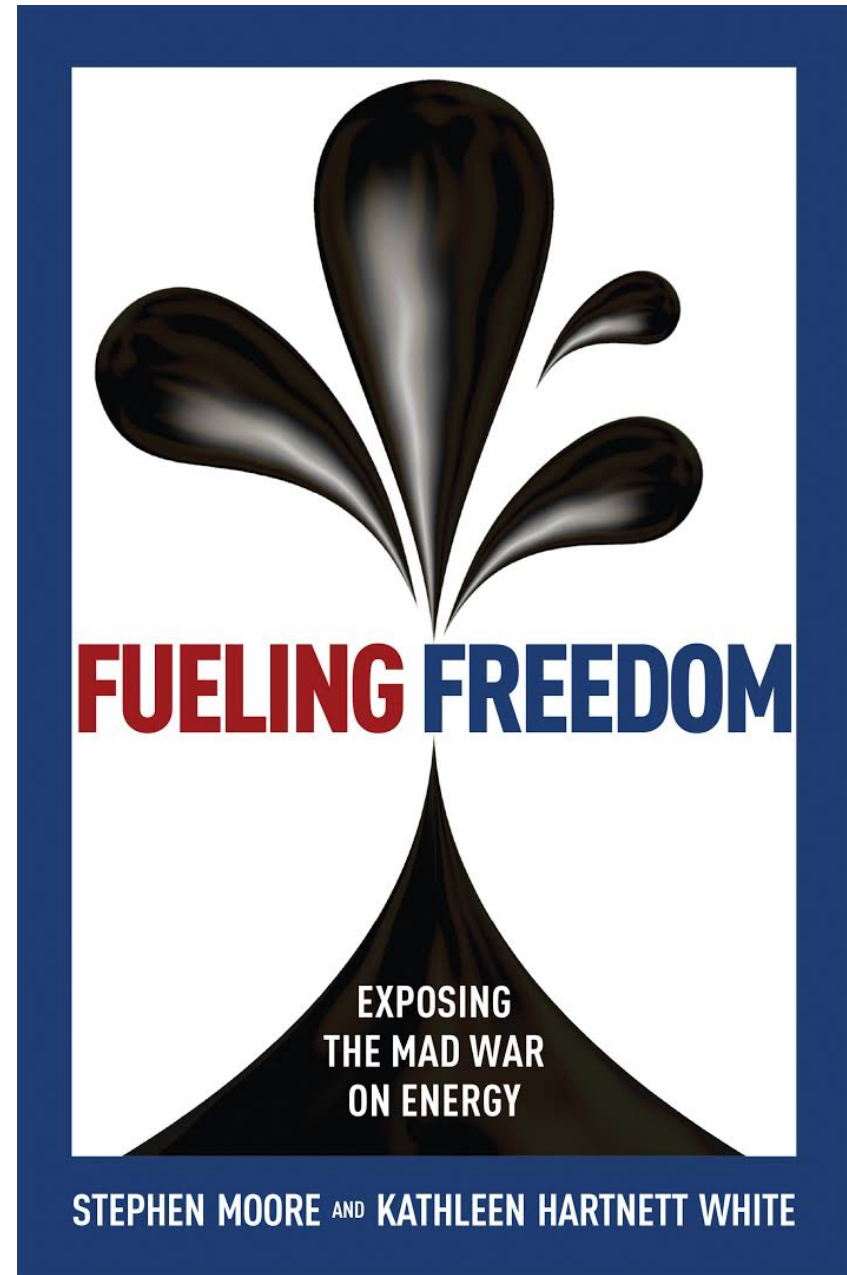
- Become, and stay, totally independent of any need to import energy from the OPEC cartel or any nations hostile to our interests
- Open onshore and offshore leasing on federal lands, eliminate moratorium on coal leasing, and open shale energy deposits

President Elect Trump's First Energy Plan

(according to his campaign website)

- Encourage the use of natural gas and other American energy resources that will both reduce emissions but also reduce the price of energy and increase our economic output
- Rescind all job-destroying Obama executive actions. Mr. Trump will reduce and eliminate all barriers to responsible energy production, creating at least a half million jobs a year, \$30 billion in higher wages, and cheaper energy.

Source: www.donaldjtrump.com



Campaign Rhetoric Translated

1. He will “reset” relations with Middle Eastern countries (ie - independence from OPEC).
2. He may consider a significant downsizing of the Department of Energy through budget actions.
3. He will eliminate unnecessary regulations with backing from Congress.
4. He will dismantle Obama's efforts to curb global warming.

Campaign Rhetoric Translated (cont'd)

5. He will eliminate the Clean Power Plan by not defending the case that the Supreme Court referred to a lower court.
6. He will promote exports of oil and natural gas (Keystone XL Pipeline and Dakota Access Pipeline). (But does the market need them?)
7. He will open up Federal lands both onshore and offshore (Gulf of Mexico and Atlantic Continental shelf) for additional drilling.
8. He will accelerate the permit/license review and approval process for all energy related projects.

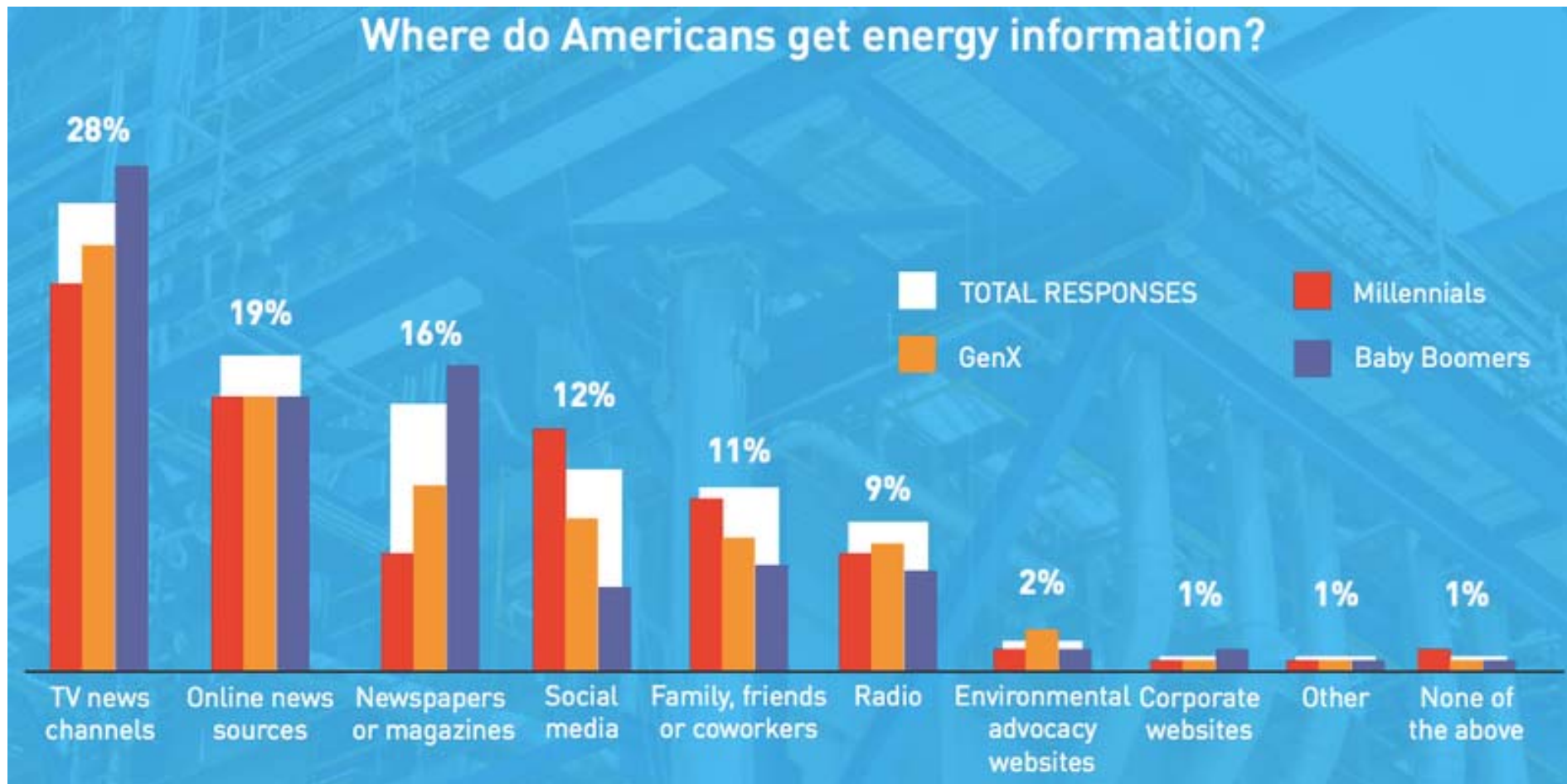
But What is the Market Significance of These Actions?

- OPEC meeting November 30, 2016
- October 2016 OPEC production: 33.8 mmbpd, the Big 3 (Saudi: 10.6, Iraq: 4.6 and Iran: 3.7) produced 55% of current OPEC output
- Saudi's ability to control Iraq and Iran production volumes is much greater in anticipation of a Trump presidency and a Trump "energy independence" agenda for the U.S.
- Saudi Arabia wants to accelerate the drawdown of excess OECD inventories (334 mmbbls) by cutting OPEC production volumes ASAP
- Expect the announcement of a deal on November 30, 2016
- This will be the first "tell" on the effectiveness of the Trump presidency.

NGZ11 - Natural Gas (NYMEX)



Where do Americans get energy information?



Source: *America isn't using nearly as much renewable energy as Americans think*, David Roberts, www.vox.com, October 28, 2016

World LNG Estimated October 2014 Landed Prices



Source: Waterborne Energy, Inc. Data in \$US/MMBtu

World LNG Estimated September 2016 Landed Prices (\$U.S./MMBtu) - update



Source: Waterborne Energy, Inc. Data in \$US/MMBtu. Landed prices are based on a netback calculation. Updated October 2016
Note: Includes information and Data supplied by IHS Global Inc. and its affiliates ("IHS"); Copyright (publication year) all rights reserved.
Prices are the monthly average of the weekly landed prices for the listed month.

Conclusions

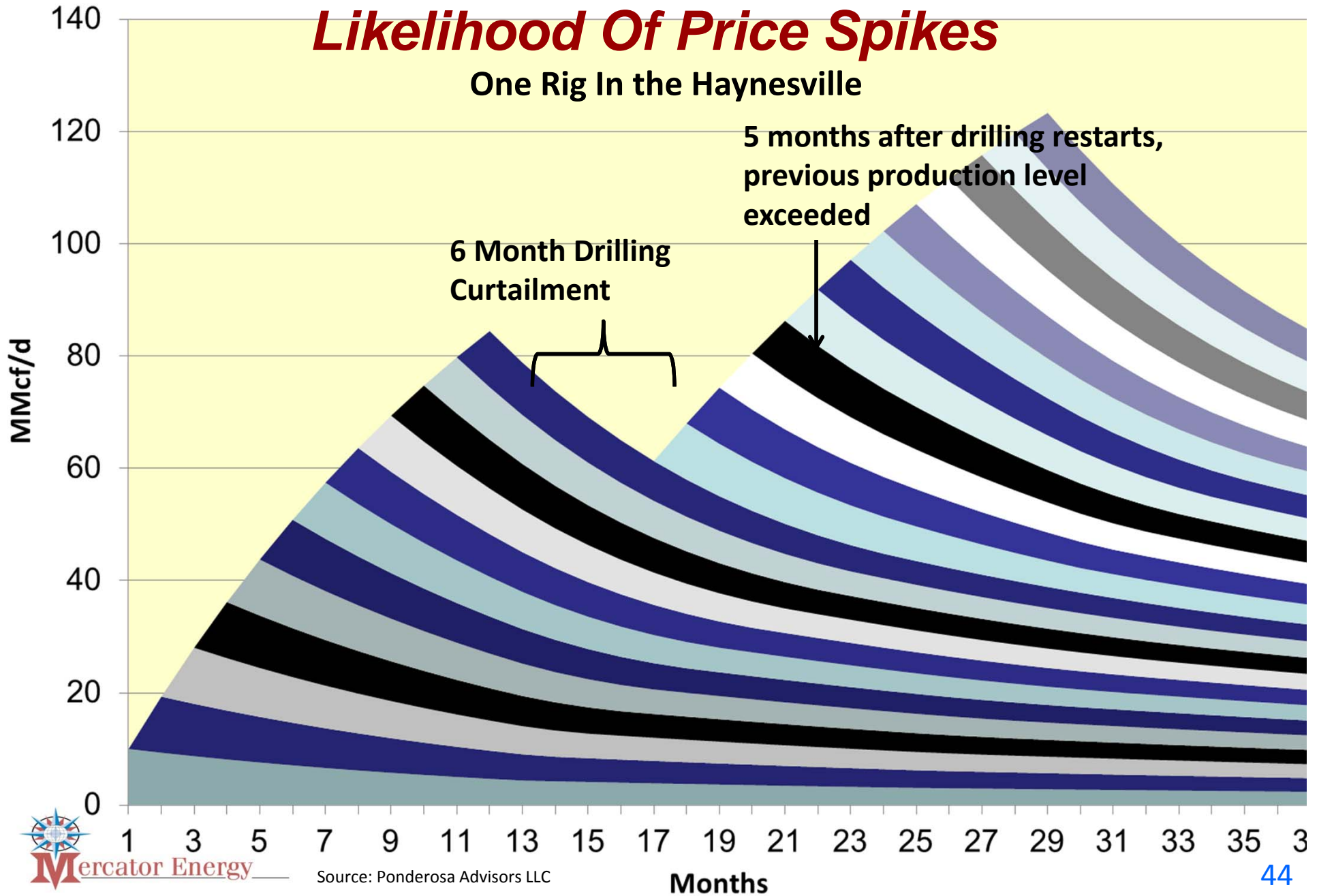
- Fewer regulations, infrastructure spending and faster economic growth are the key for an increase in oil and gas demand
- A Trump presidency policies may be negative for oil and gas prices because of the potential for greater volumes produced at a lower cost
- The timing of his efforts will be critical and the environmental NGO legal response will be significant

Conclusions (cont'd)

- Here is an example: possible change to the Equal Access to Justice Act?
- Currently environmental NGOs, thanks to the Equal Access to Justice Act, have all of their legal fees paid when filing a lawsuit against the government
 - As one former Secretary of Interior put it: “this is the most abused legal right in our system today”
- I can see this issue being changed in Congress, especially under a proposed trillion dollar infrastructure bill

The "Ferrari" Affect Substantially Reduces The Likelihood Of Price Spikes

One Rig In the Haynesville



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