# SUSTAINING THE NORTH AMERICAN PETROLEUM RENAISSANCE (Why Policy Still Matters)

Crossroads Energy Summit Industry and the Economy Heritage Foundation/Texas Public Policy Foundation Washington, DC November 30, 2017

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## About EPRINC

- Founded 1944
- Not-for-profit organization
- Studies intersection of petroleum economics and public policy
- Provides independent and technical analyses for distribution to the public
- Supports USG projects, e.g. Quadrennial Energy Review, DoD strategic outlook
- EPRINC Embassy Series
- IEEJ-EPRINC Project on "Future of ASIAN LNG
- <u>www.eprinc.org</u>





### ENERGY POLICY RESEARCH FOUNDATION, INC.

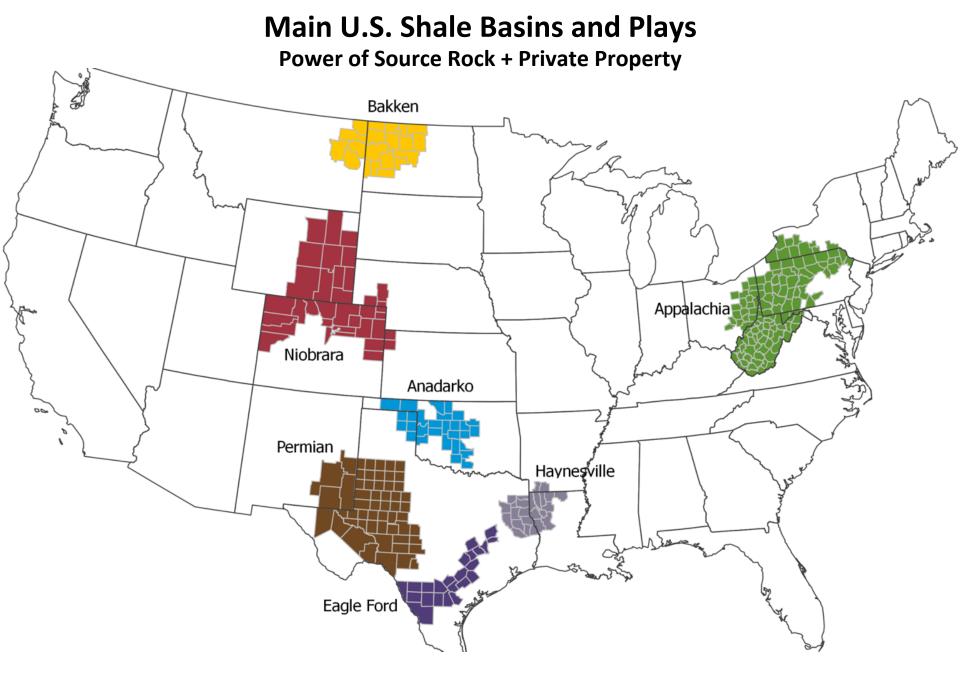
Unique Insight into the World of Petroleum Economics and Public Policy since 1944



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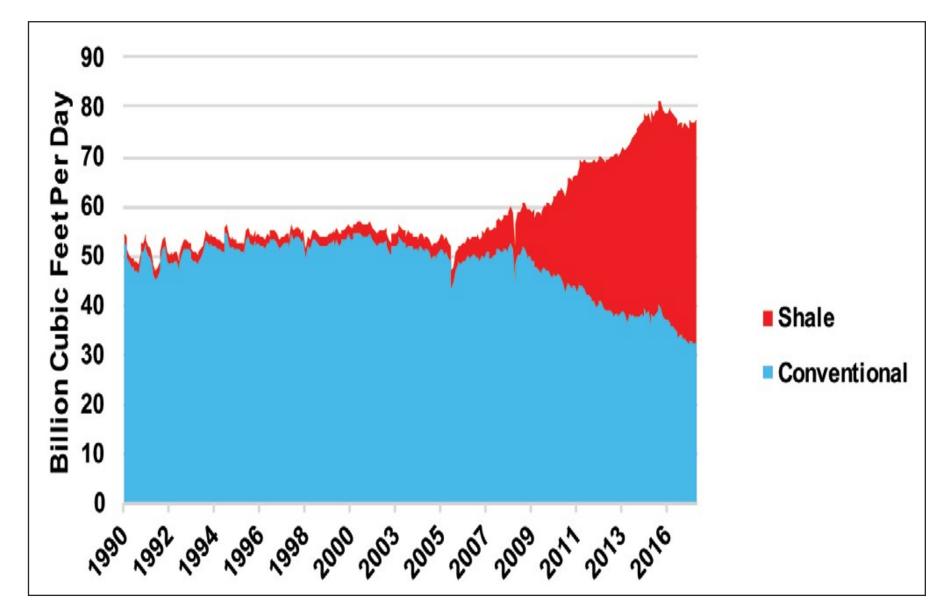
# WESTERN INTERIOR SEAWAY

Stanley, Steven M. (1999). Earth System History. New York: W.H. Freeman and Company.



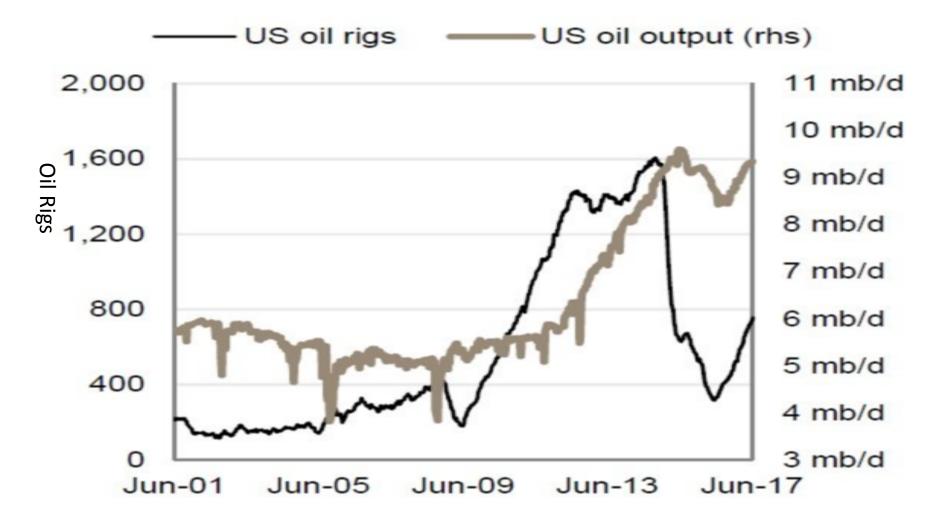
Source: EIA

# **US Natural Gas Production**



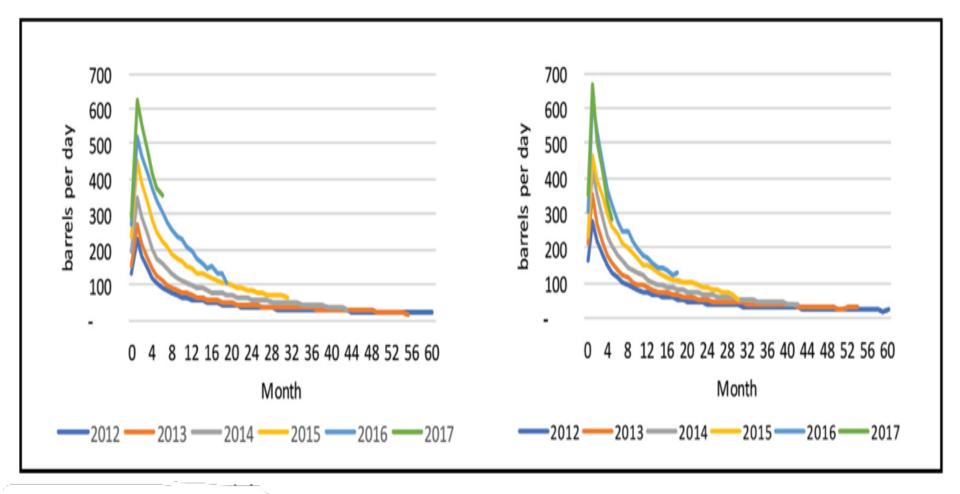
#### Source: EPRINC from EIA data

# U.S. Oil Production is Up and Rigs Count is Down (sort of)



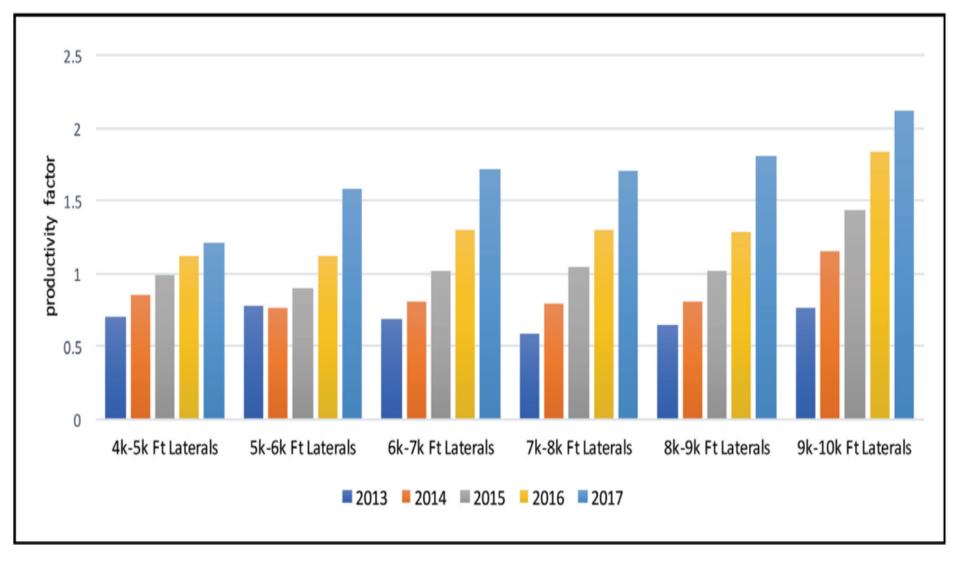
Source: EIA, Baker Hughes, DrillingInfo

# Permian Basin Horizontal Decline Curves (Texas and New Mexico) (b/d)

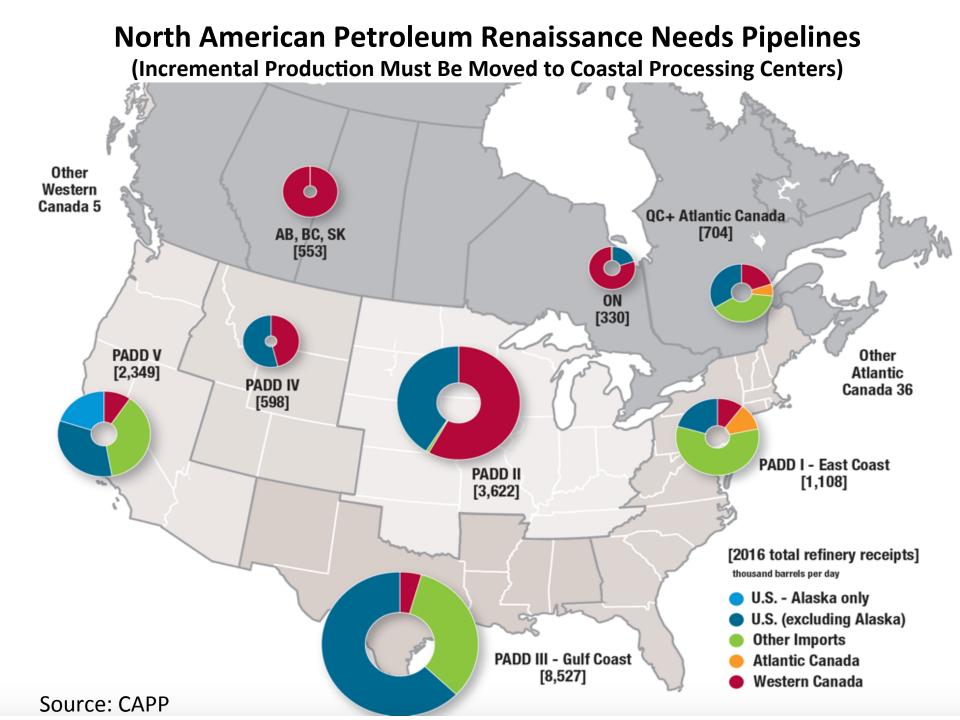


Source: **Completion Design Changes on Well Productivity,** Curtis & Montalbano, Forthcoming EPRINC paper, (December 2017).

## Permian Basin Horizontal Well Productivity by Lateral Length Segment



Source: **Completion Design Changes on Well Productivity,** Curtis & Montalbano, Forthcoming EPRINC paper, (November 2017). Note: Well productivity indexed to a base curve, which equals 1.



#### **U.S. Net Trade Crude & Petroleum Products** ARCH FOUN millions bbls/day 16 14 12 total imports 10 US Imports 8 millions bbl/day US Exports US Net Imports 6 net imports total exports 4 2 Note: Of Net Imports of 5.3 mbd, 2.4 mbd from Canada 0 2004 2005 2007 2009 2010 2006 2011 2012 2014 2015 Jul-2016

Source: EIA

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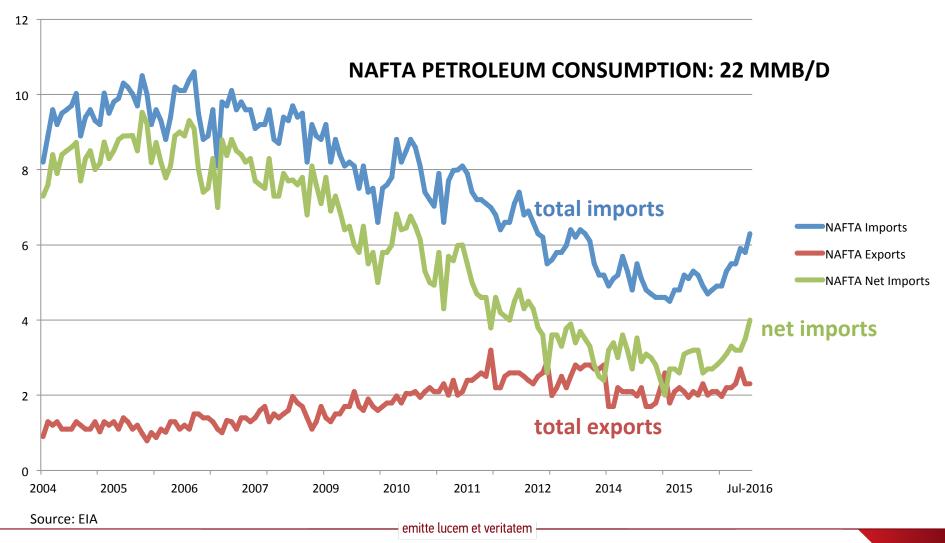
# **NAFTA Single Market Lens**

(Net Imports of Crude & Petroleum Products)

EARCH

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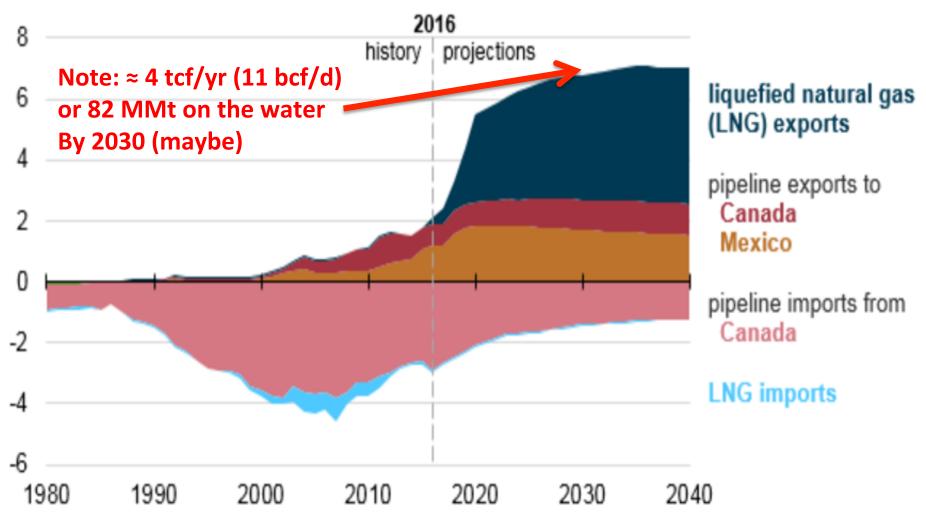
millions bbls/day



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# **US NATURAL GAS EXPORT COULD GROW QUICKLY**

# trillions cubic feet/year



Source: EIA, Reference Case

Steve McQueen, a San Francisco detective in the iconic thriller, **Bullitt,** chases the bad guys in his 1968 Ford Mustang GT fastback with a 325 horse power V8.



How do the cars of today compare with McQueen's Mustang?

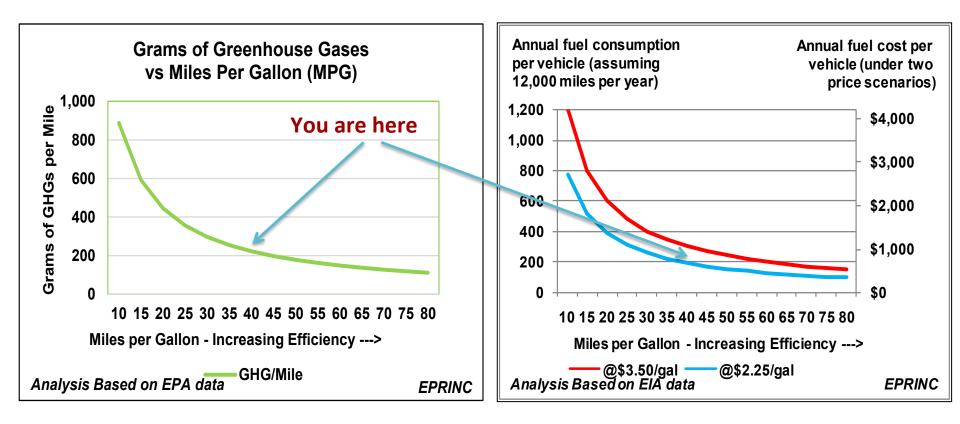
#### Answer:

1968 Mustang, 1 ton of criteria pollutants per 100,000 miles 2016 Mustang, 10 pounds of criteria pollutants per 100,000 miles



14

**A Comment on Environmental Regulation** How Much Should We Pay for the Last 10 Yards?



Source: Pugliaresi, L. and Max Pyziur, CAFE, Gasoline Prices and the Law of Diminishing Returns, March 2016, EPRINC

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