AGI Critical Issues Forum

America's Increasing Reliance on Natural Gas: Benefits and Risk of a Methane Economy

"Politics & Public Opinion"

The Natural Gas Conundrum

L. C. (Randy) Randolph Jr.

Southern Gas Association Who We Are...

- 106 year old natural gas trade association
- 160 natural gas company members
- 300 associate members
- 500+ member volunteers
- 60 live & 50 virtual events per year

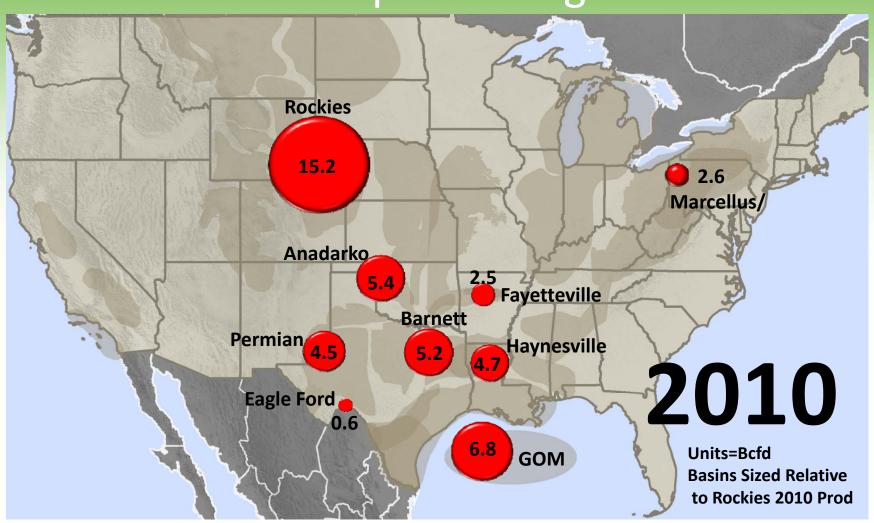
SGA Member Service Areas



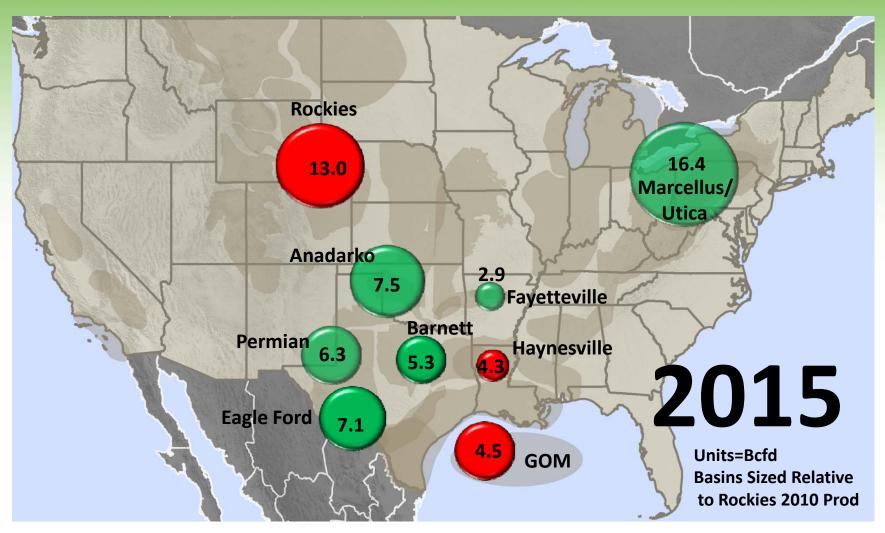
Outline

- Geographic Changes in Nat Gas Supply
- Nat Gas & Liquid Hydrocarbon Connection
- US Refining Capacity
- Economic Contributions
- Regional Responses
- Technology

Natural Gas Production Geography Keeps Evolving

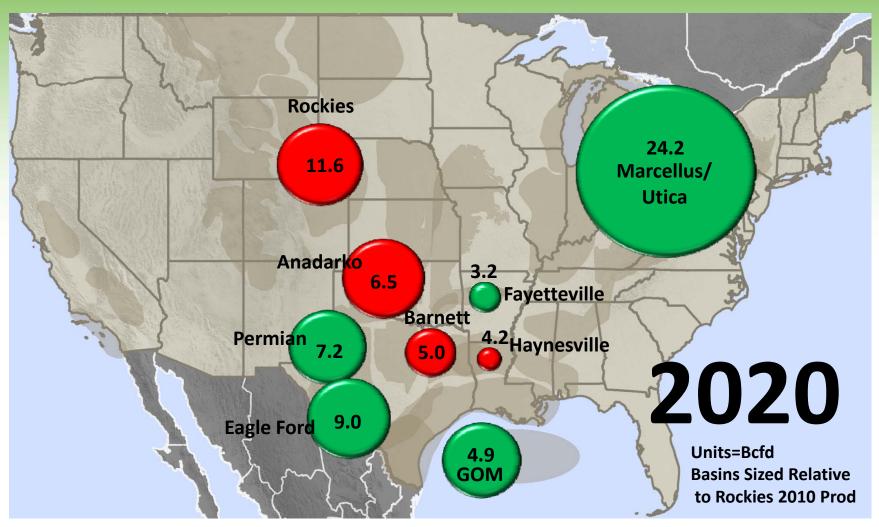


Marcellus/Utica Transforming The Natural Gas Market



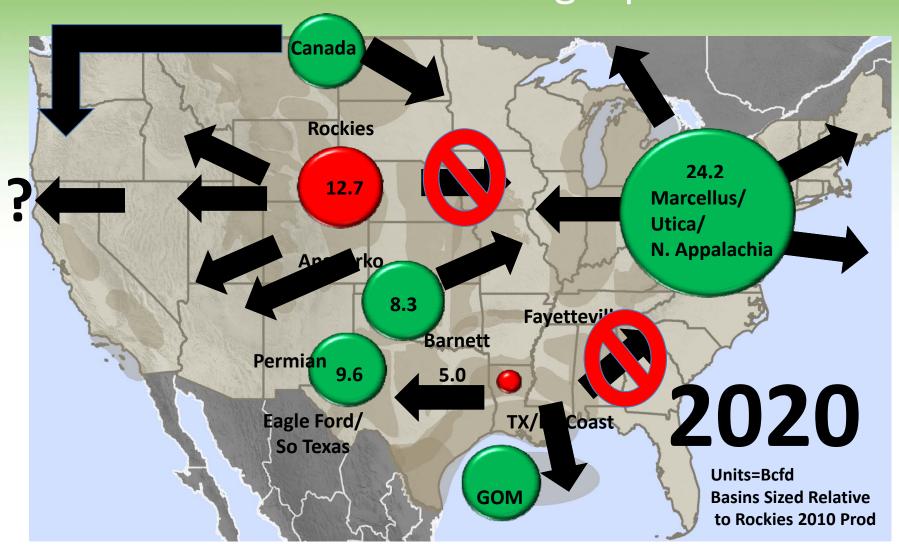
Source: Ponderosa Advisors HPDI

Marcellus/Utica Will Transform The Natural Gas Market



Source: Ponderosa Advisors & HPDI

Marcellus/Utica Production Dominates NA Flow Patterns Straining Pipeline Assets



Source: Ponderosa Advisors & HPDI

North America Natural Gas Supply and Demand N. America Supply vs. Demand **U.S. LNG Import Projections** 1241 20 120 BCM **BCM** 2005 Demand **15** 100 Supply/Demand (BCFd) Net LNG Imports (BCFd) 2007 80 10 2008 **Shale Production** 60 5 2010 40 0 Net exporter 2013 Non-Shale 20 **Production** (5) 2014 Source: Wood Mackenzie Source: U.S. Dept. of Energy, Energy Information Administration (10)2020 2025 2005 2010 2015 2010 2015 2025 2020

North America is poised to become a net LNG exporter

54%

3%

20%

42%

52%

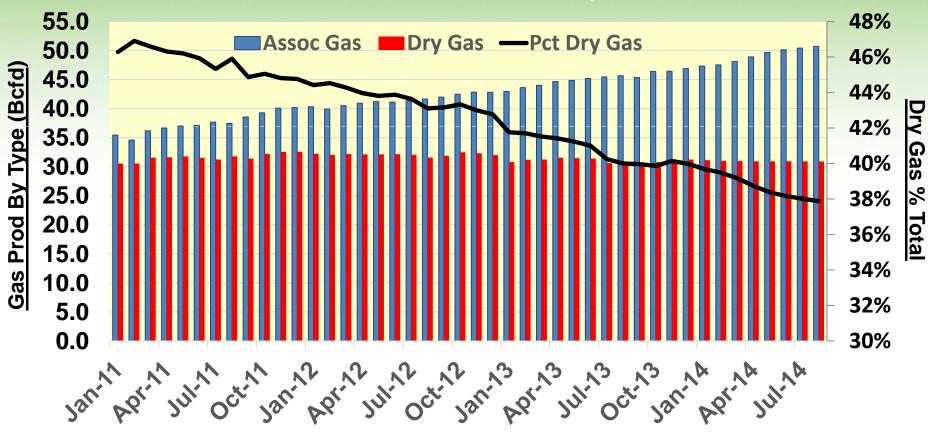
Shale % of

Supply

^{*}N. America: U.S. and Canada only

Dry Gas Declines Have Been Offset By **Associated Gas Production**

Gross Gas Production By GPM



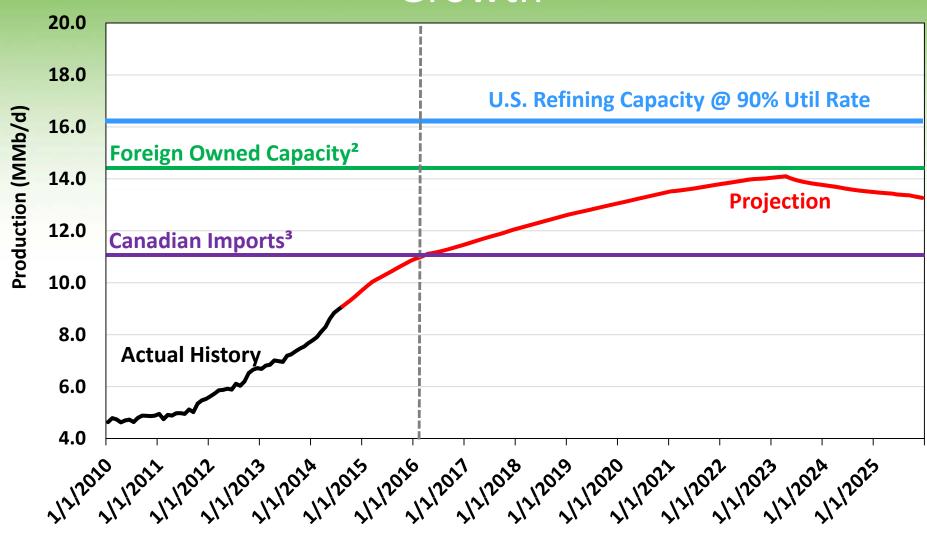
Assoc Gas Definition: Onshore Production Areas With GPM>1.15, Data through 8/2014

Source: Ponderosa Advisors, HPDI, FERC

¹Utilization Rate: 90%

²Foreign Owned Capacity: 1.4 MMb/d 52 ³Canadian Imports: 3.1 MMb/d

US Refining Capacity Will Slow Production Growth



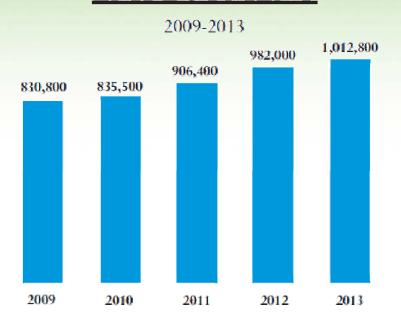
Source: Ponderosa Advisors, HPDI, FERC

¹Utilization Rate: 90%

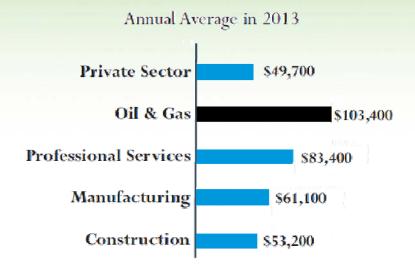
²Foreign Owned Capacity: 1.4 MMb/d ³Canadian Imports: 3.1 MMb/d

United States Oil & Gas Key Industry Statistics

EMPLOYMENT



WAGE COMPARISON



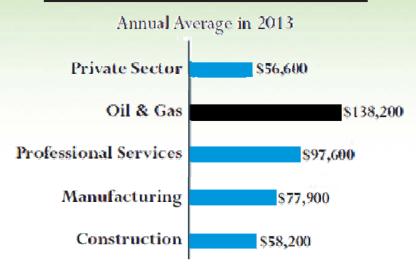


California Oil & Gas Key Industry Statistics

EMPLOYMENT

2009-2013

WAGE COMPARISON



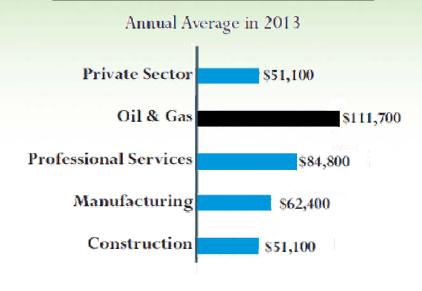


Colorado Oil & Gas Key Industry Statistics

EMPLOYMENT

2009-2013 27,600 28,200 22,800 23,200 2011 2012 2013

WAGE COMPARISON

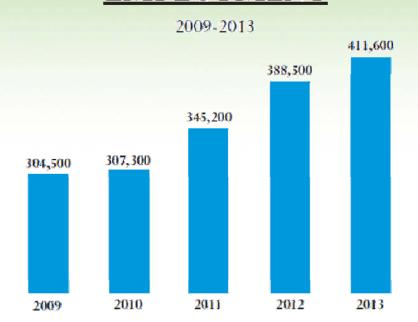


Source: U.S. Bureau of Labor Statistics All data is for 2013 except where noted.

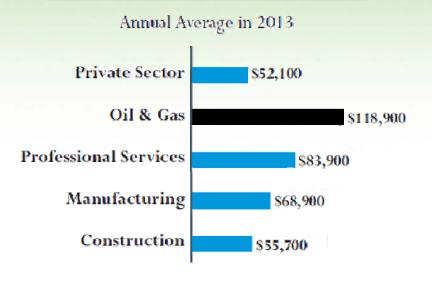


Texas Oil & Gas Key Industry Statistics

EMPLOYMENT



WAGE COMPARISON





UT Austin Energy Survey

35 years old and younger

- 68% would likely vote for candidates that support carbon emission reductions
- 56% are willing to pay much higher prices to protect the environment
- 72% strongly support subsidies for renewable energy
- 39% are familiar with hydraulic fracturing for hydrocarbon fuel extraction
- 37% support the use of hydraulic fracturing

65 years old and older

- 50% would likely vote for candidates that support carbon emission reductions
- 20% are willing to pay much higher prices to protect the environment
- 58% strongly support subsidies for renewable energy
- 52% are familiar with hydraulic fracturing for hydrocarbon fuel extraction
- 52% support the use of hydraulic fracturing

Building Creditability & Relationships

- Education Public, Customers & Employees
- Advocacy Training
- Local Community Engagement
- Workforce Training & Development
- Public Forum Participation
- Safety Public, Customer and Employee
- Communications

Contact

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