



Energy Summit 2014

The Future of Louisiana Energy

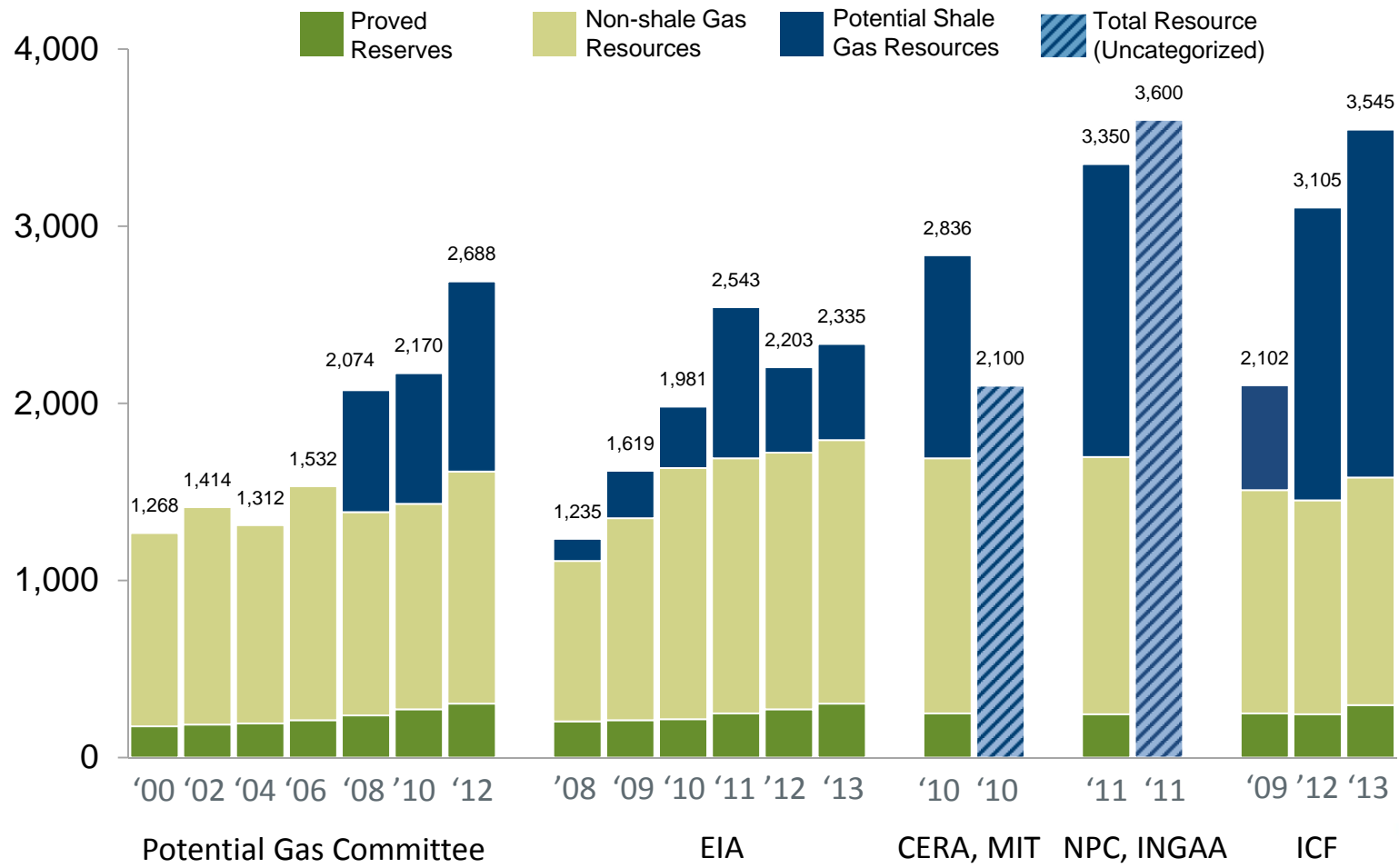
Energy Exports Outlook

Frank J. Macchiarola
Executive Vice President, Government Affairs
October 22, 2014 – LSU Center for Energy Studies
Baton Rouge, LA

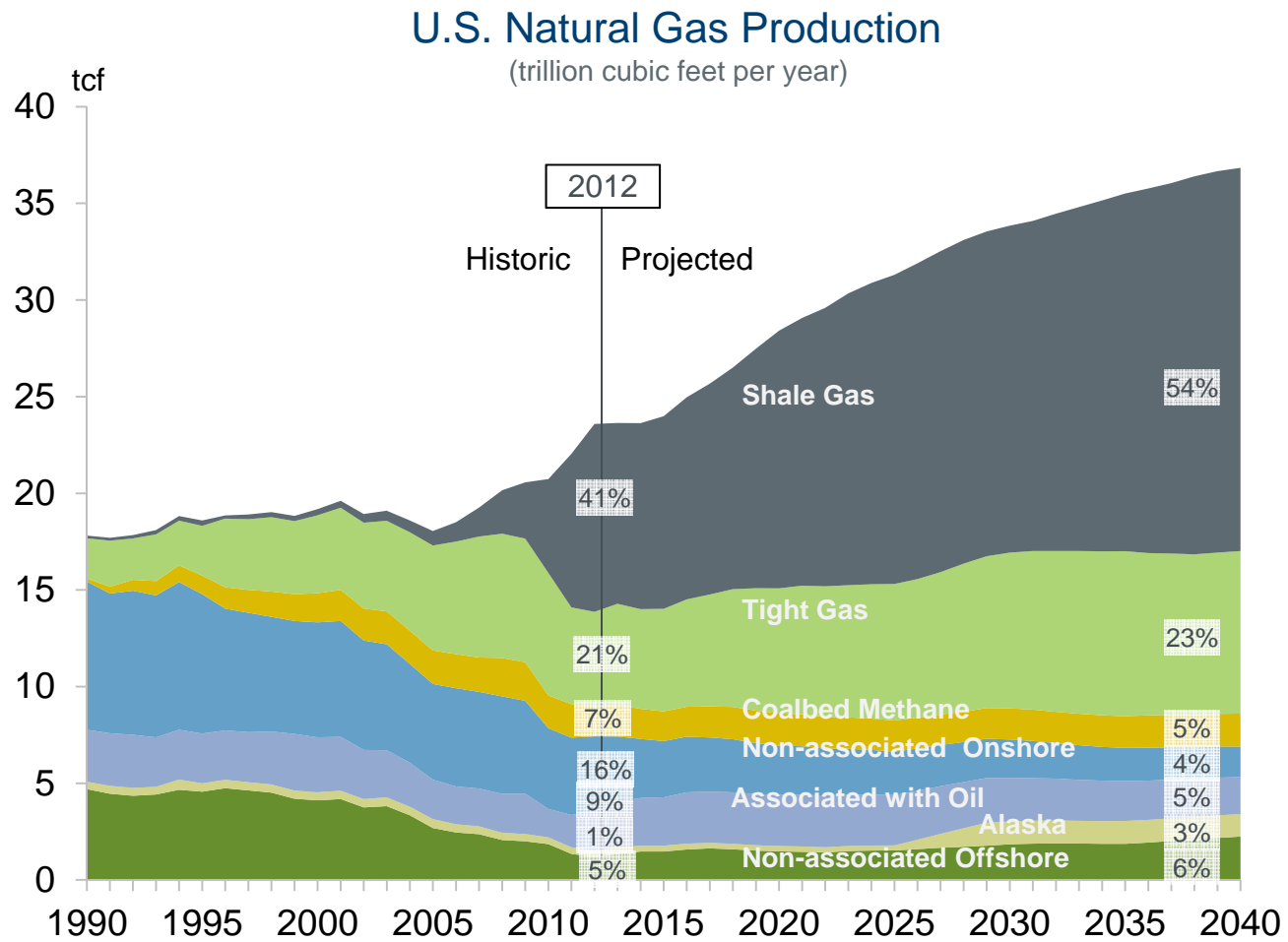


Abundant Supply

Estimates of U.S. Recoverable Natural Gas
(trillion cubic feet)

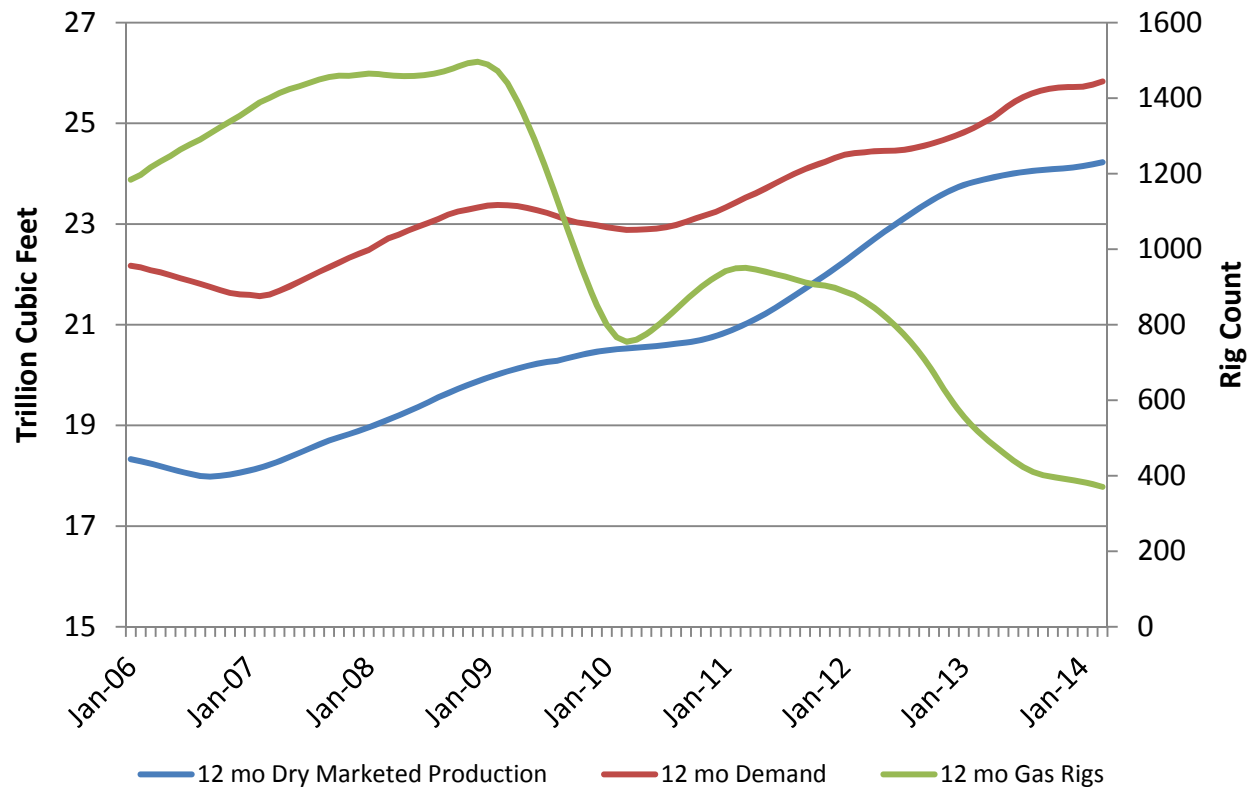


Fundamental Change in the Game



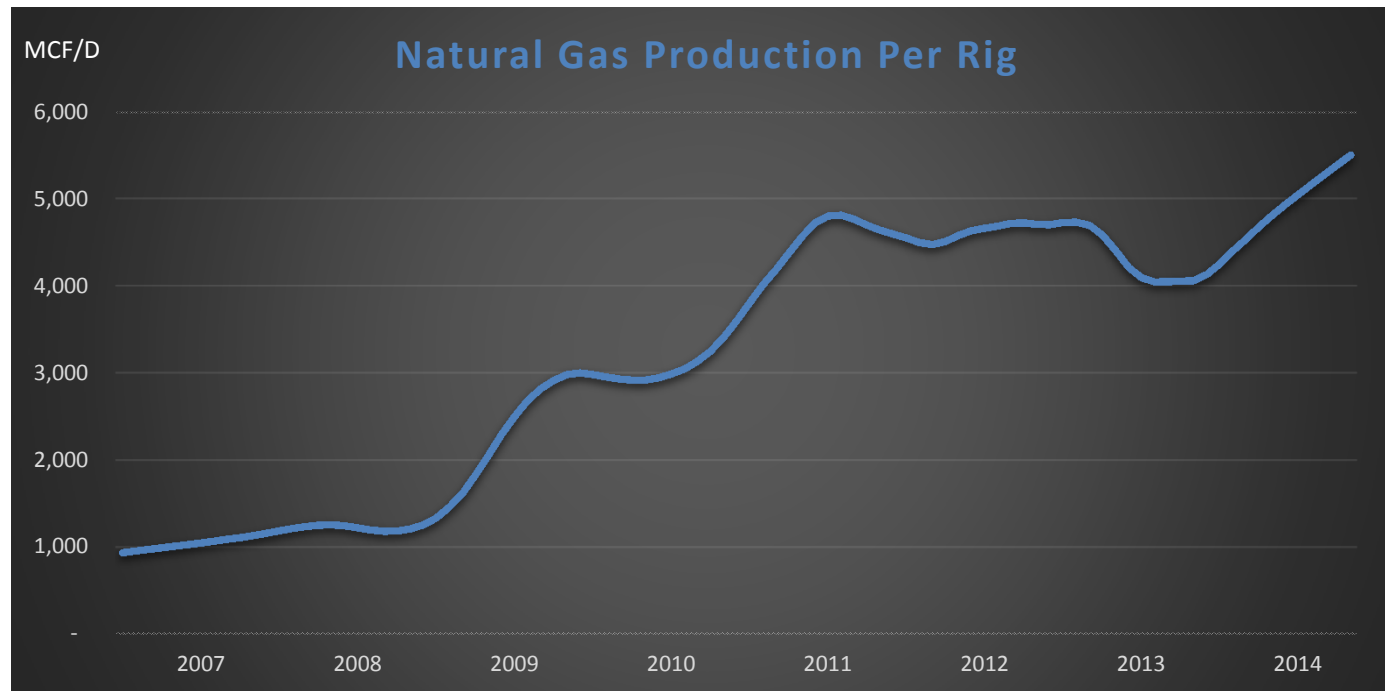
Note: Dry production (marketed production minus extraction losses & associated offshore)
Source: EIA Annual Energy Outlook: 2014

Fewer Rigs, More Production



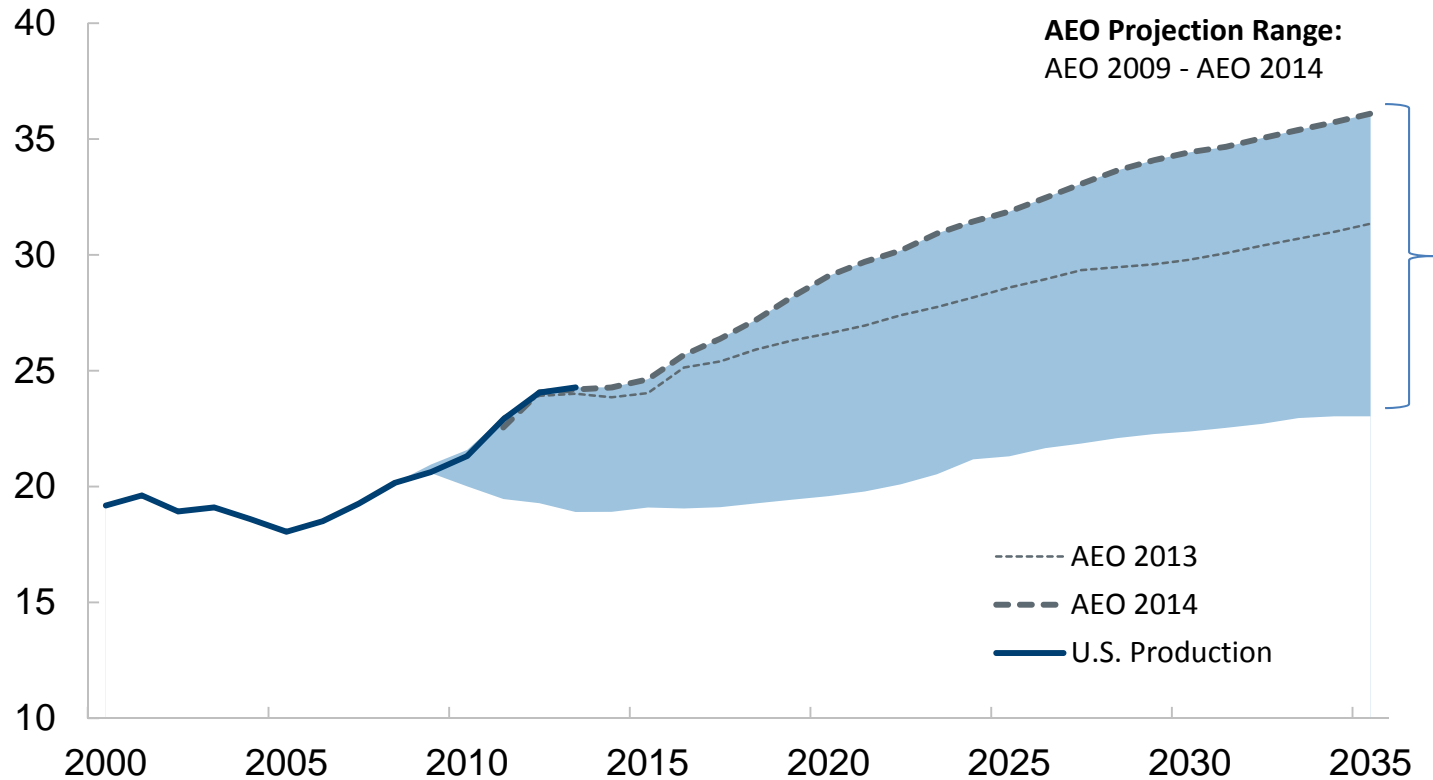
Source: EIA - 12 Month Rolling Average of Production and Demand,
Baker Hughes - 12 month Rolling Average of Rig Count

Haynesville Production



Source: EIA Drilling Productivity Reports

Natural Gas Production (TCF): Reference



The maximum bound is AEO 2014 ER, the average production in years 2014-2035 is 47% more than the minimum bound average production from the AEO 2010 and is 10% higher than AEO 2013.

Can We Meet Added Demand?



US and Canadian Reserves

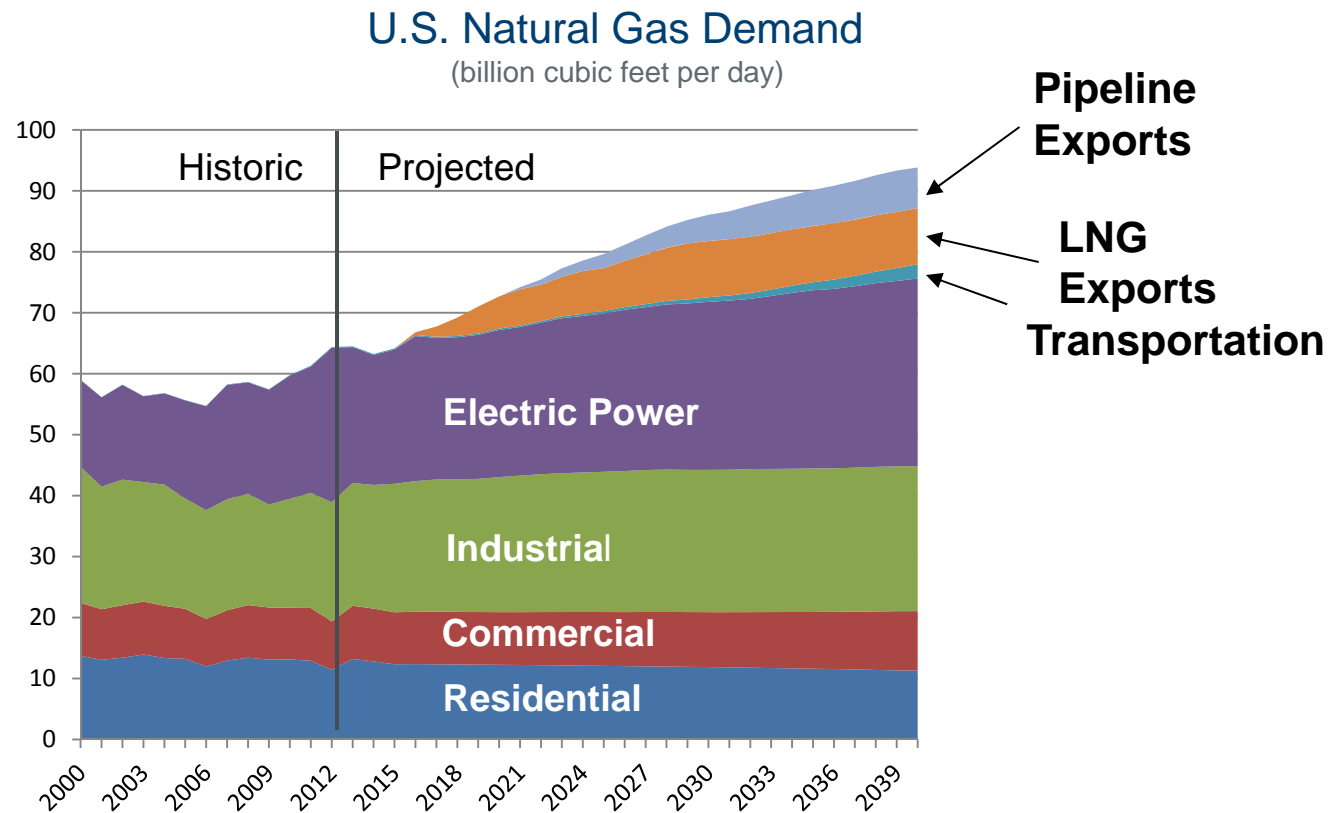
← Technically Recoverable
Reserves 2013 technology:
4,000 TCF

Source: EIA,
ICF

ANGA Demand Focus

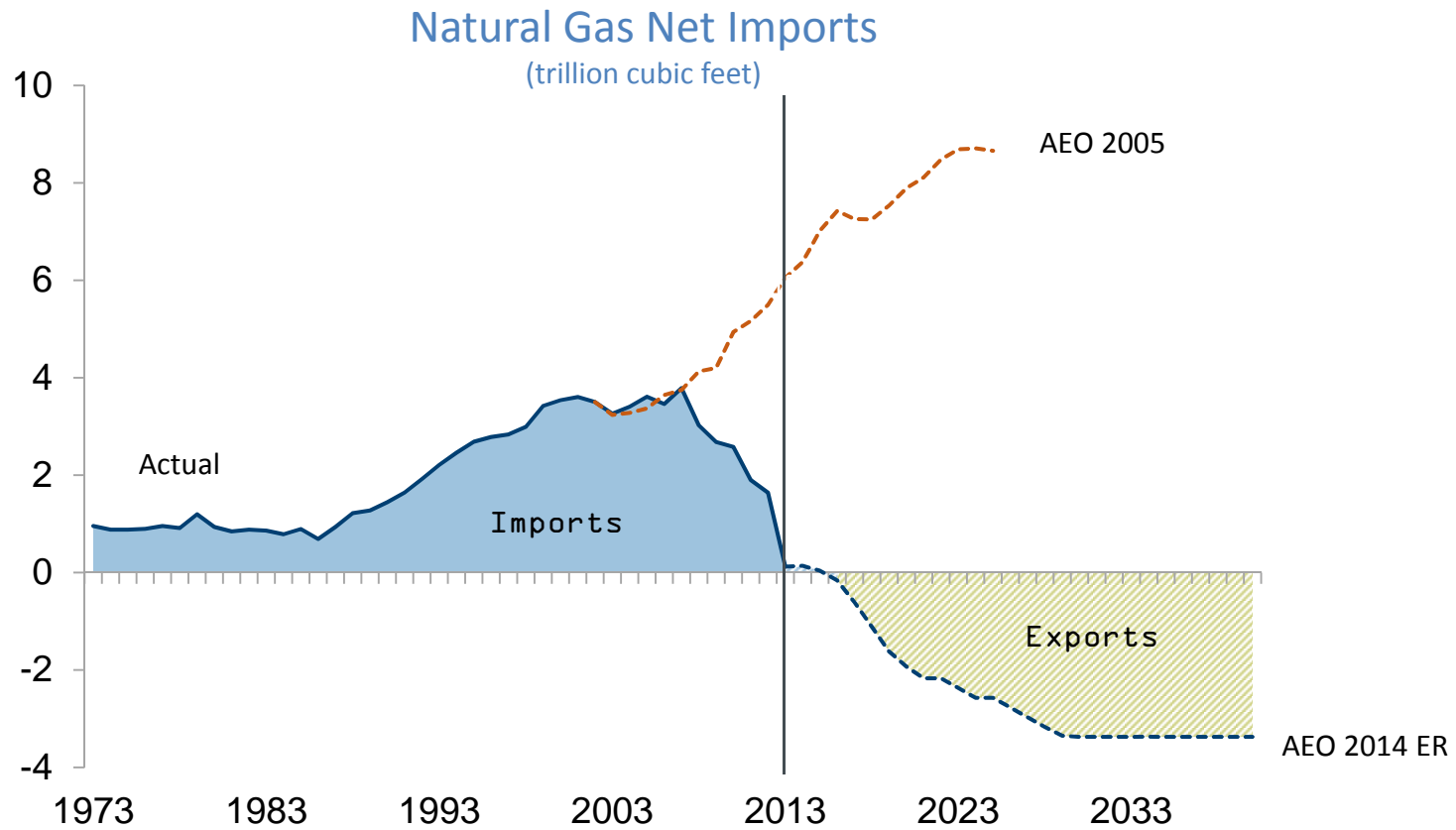
- Power Generation
- Transportation
- Manufacturing
- LNG Exports
- Supply Protection

Natural Gas Demand Growth



Projected Data Source: EIA Annual Energy Outlook: 2014
Historic Data Source: EIA Natural Gas Monthly, April 2014

LNG Exports - Paradigm Shift

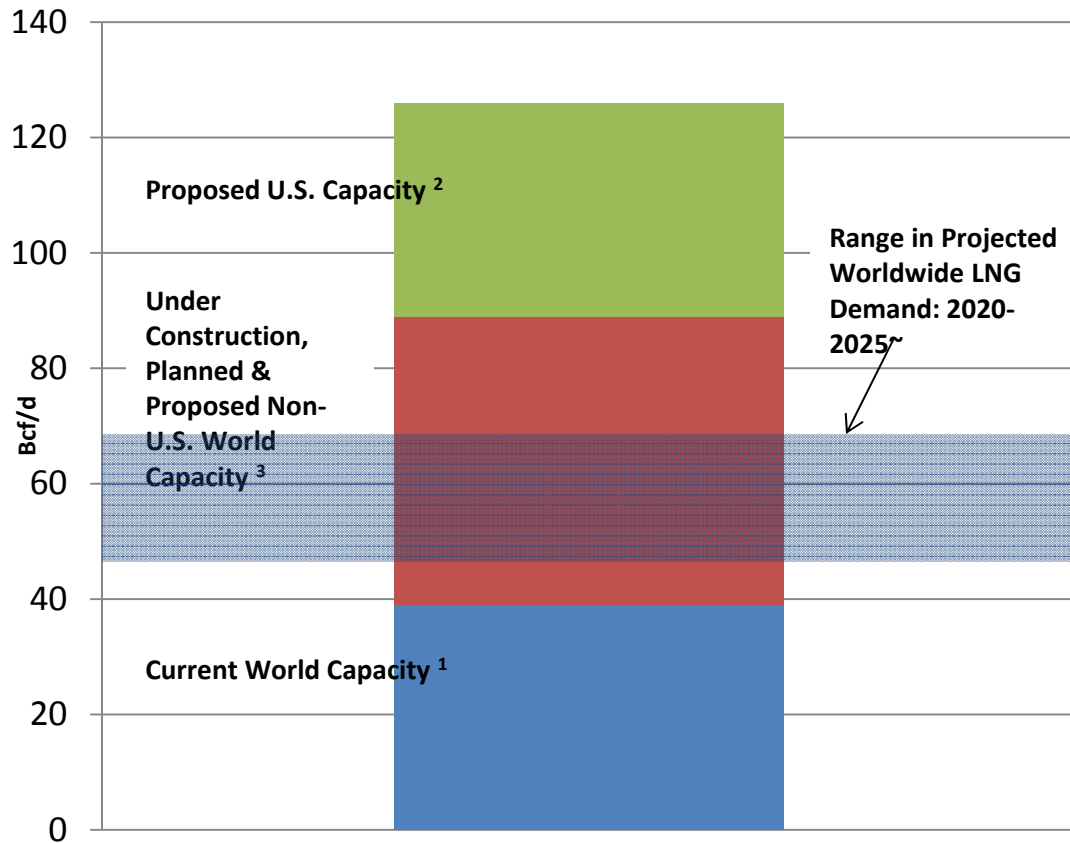


LNG Export Study Comparison

Modeler	Sponsor	Release Date	Price Timeline, Location	U.S. Natural Gas Supply Assumption*	LNG Export Levels Assumed or Solved For?	LNG Exports Volume Range (Bcf/d)	Price Change from Reference Case	% Price Change from Reference Case
ICF	API	May, 2013	2016-2030 Avg, Henry Hub	High	Assumed	4.0 - 16.0	\$0.32 - \$1.02	7% - 21%
CRA	Dow	February, 2013	2030, Henry Hub	Low	Assumed	20.0 - 35.0	\$1.60 - \$3.10	22% - 43%
NERA	DOE	December, 2012	2035, Well-head	Reference	Solved (w/ & w/o constraints)	0.0 - 15.8	\$0.00 - \$1.09	0% - 17%
NERA	DOE	December, 2012	2035, Well-head	High	Solved (w/ & w/o constraints)	6.0 - 23.0	\$0.28 - \$1.09	6% - 22%
NERA	DOE	December, 2012	2035, Well-head	Low	Solved (w/ & w/o constraints)	0.0 - 1.4	\$0.00 - \$0.16	0% - 2%
Navigant	Jordan Cove	January, 2012	2035, Henry Hub	Reference	Solved (w/ constraints)	0.9 - 6.6	\$0.04 - \$0.41	1% - 7%
Deloitte		2011	2035, U.S. Average	Reference	Assumed	6.0	\$0.22	3%

* Relative to EIA supply assumptions

Window of Opportunity



1. ICF estimate for year end 2011.

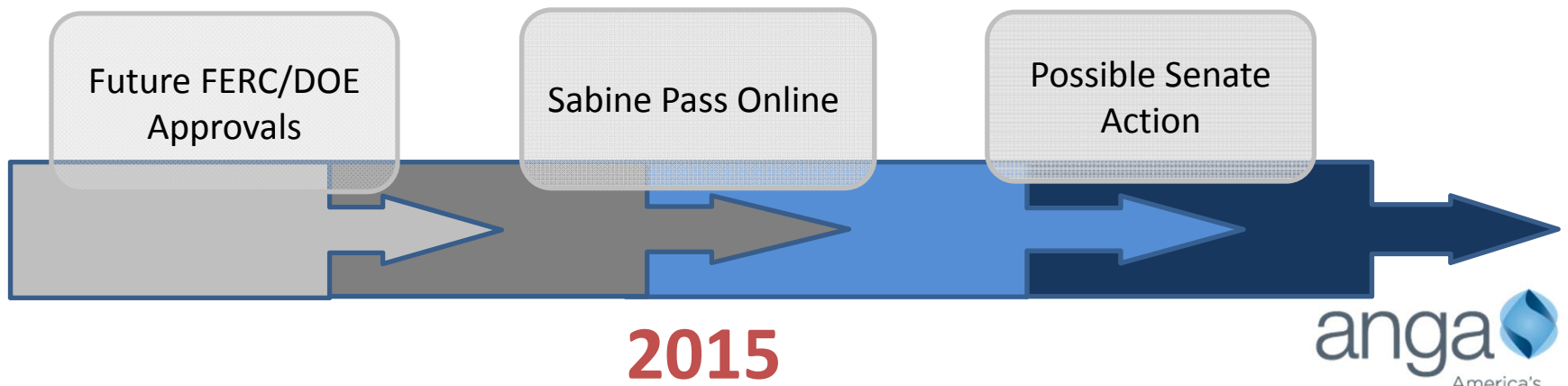
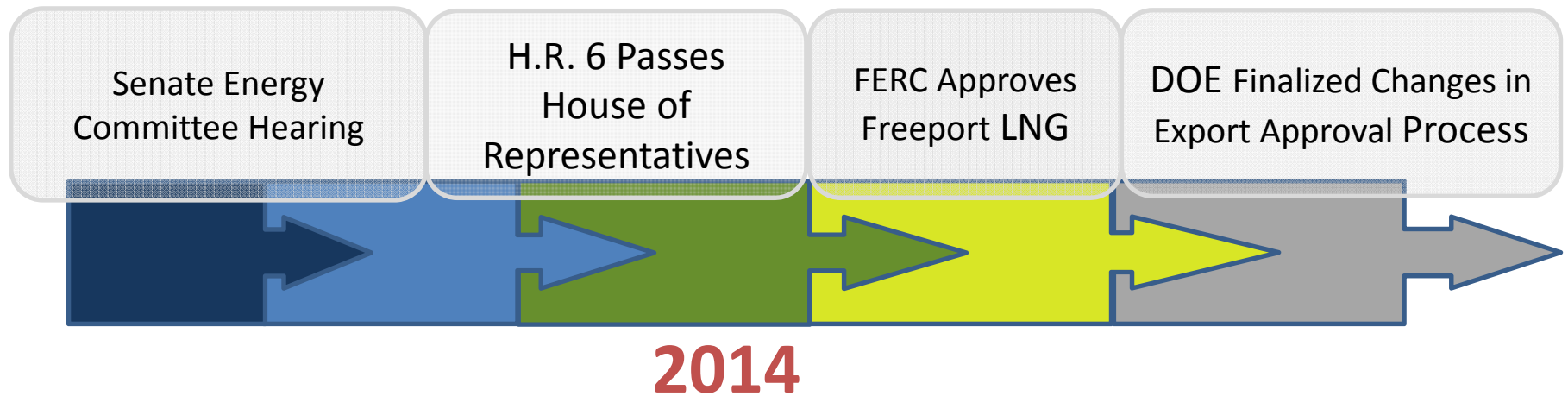
2. FTA & non-FTA Applications to DOE as of Mar 31, 2014

3. Dec 2012 ICF estimate based on current worldwide project list.

[~]Poten, BG Group, Credit Suisse, Facts Global

Source: API, ANGA

LNG Exports Timeline



Think About It

10:23

#WorldCup

9 4

America's Nat. Gas @ANGAus 19m
 #Natgas helps make Denver International one of America's most environmentally sustainable airports. Think about it.



4 1

WSJ 125 **Wall Street Journal @WSJ** 20m
 The password is finally dying – and tech columnist @mims is so confident that he's sharing his password: on.wsj.com/1qXSN15

America's Nat. Gas @ANGAus · Jun 2
 Natural gas allows Florida Power & Light to produce clean energy 24/7. Think about it.



28 20

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anga **America's Natural Gas Alliance (ANGA)**
 Written by sharper@anga.us [?] · April 8 ·

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Frank J. Macchiarola
Executive Vice President, Government Affairs
fmacchiarola@anga.us
701 8th Street NW
Washington D.C. 20001
202.789.ANGA
anga.us

