Energy Summit 2014
The Future of Louisiana Energy
Energy Exports Outlook

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

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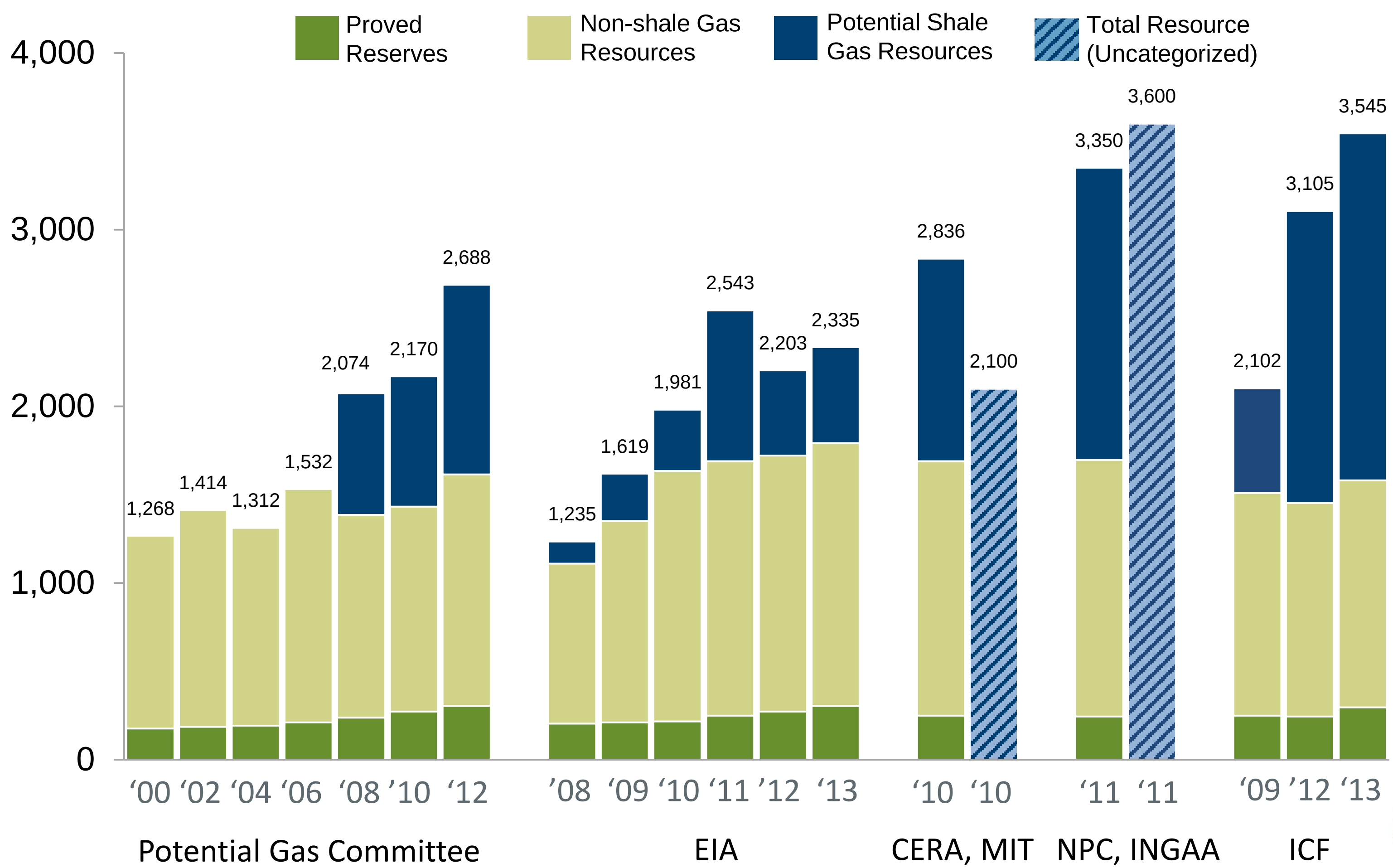
Abundant Supply

Estimates of U.S. Recoverable Natural Gas

(trillion cubic feet)



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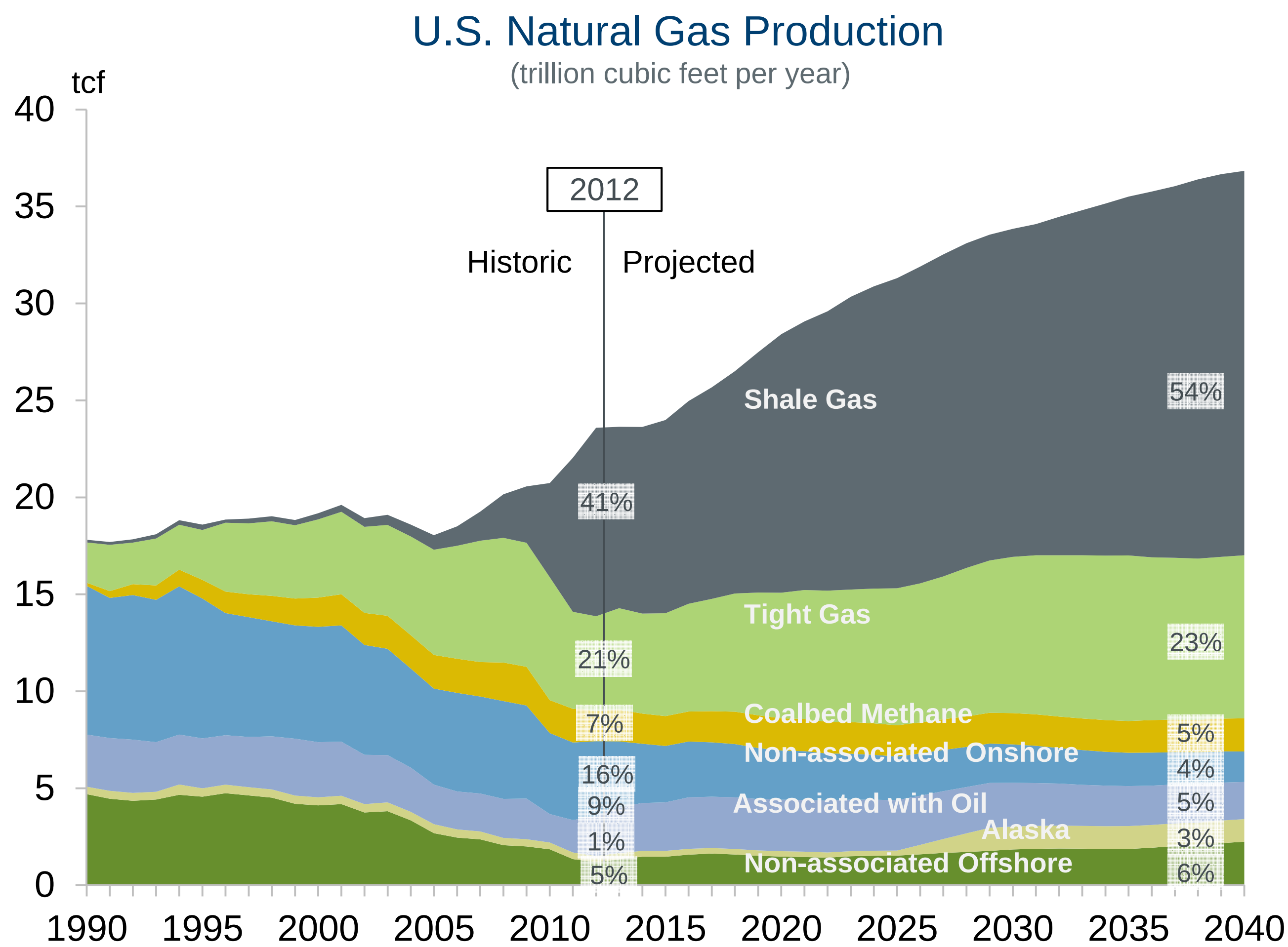
Fundamental Change in the Game



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

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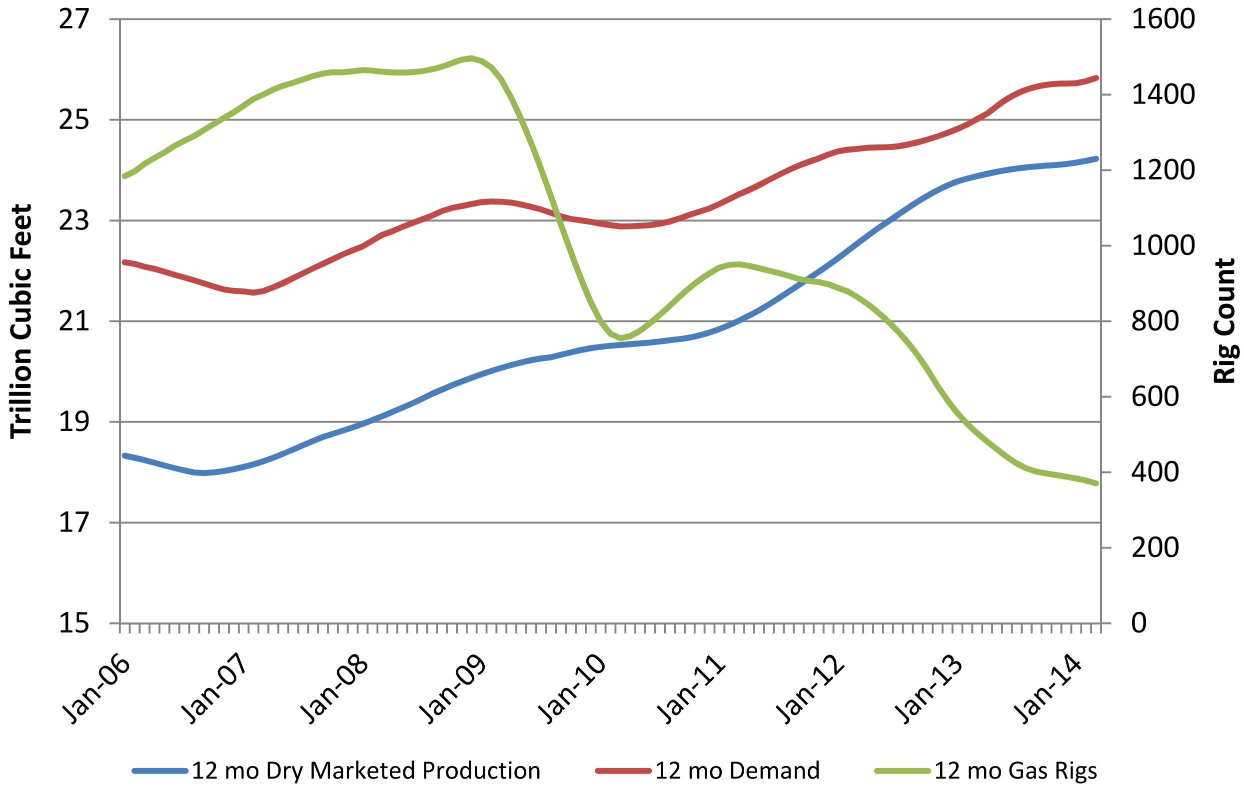
Fewer Rigs, More Production



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

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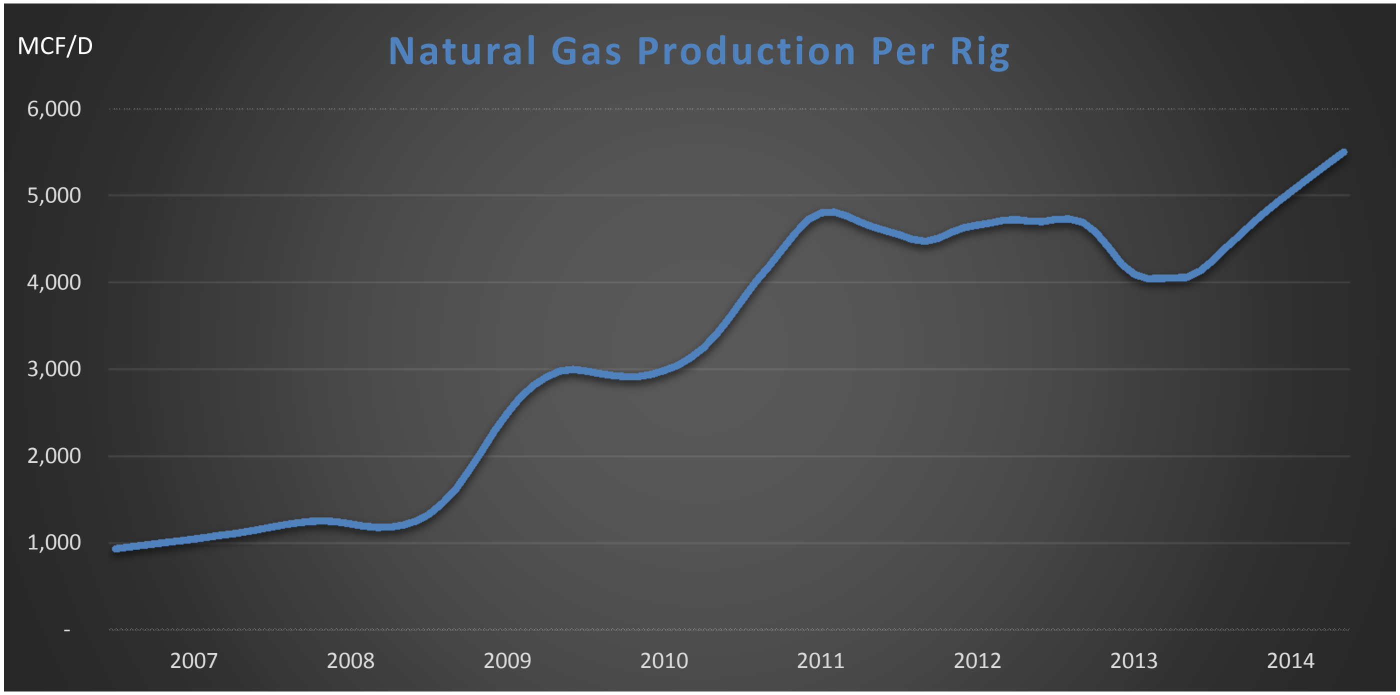
Haynesville Production



Source: EIA Drilling Productivity Reports

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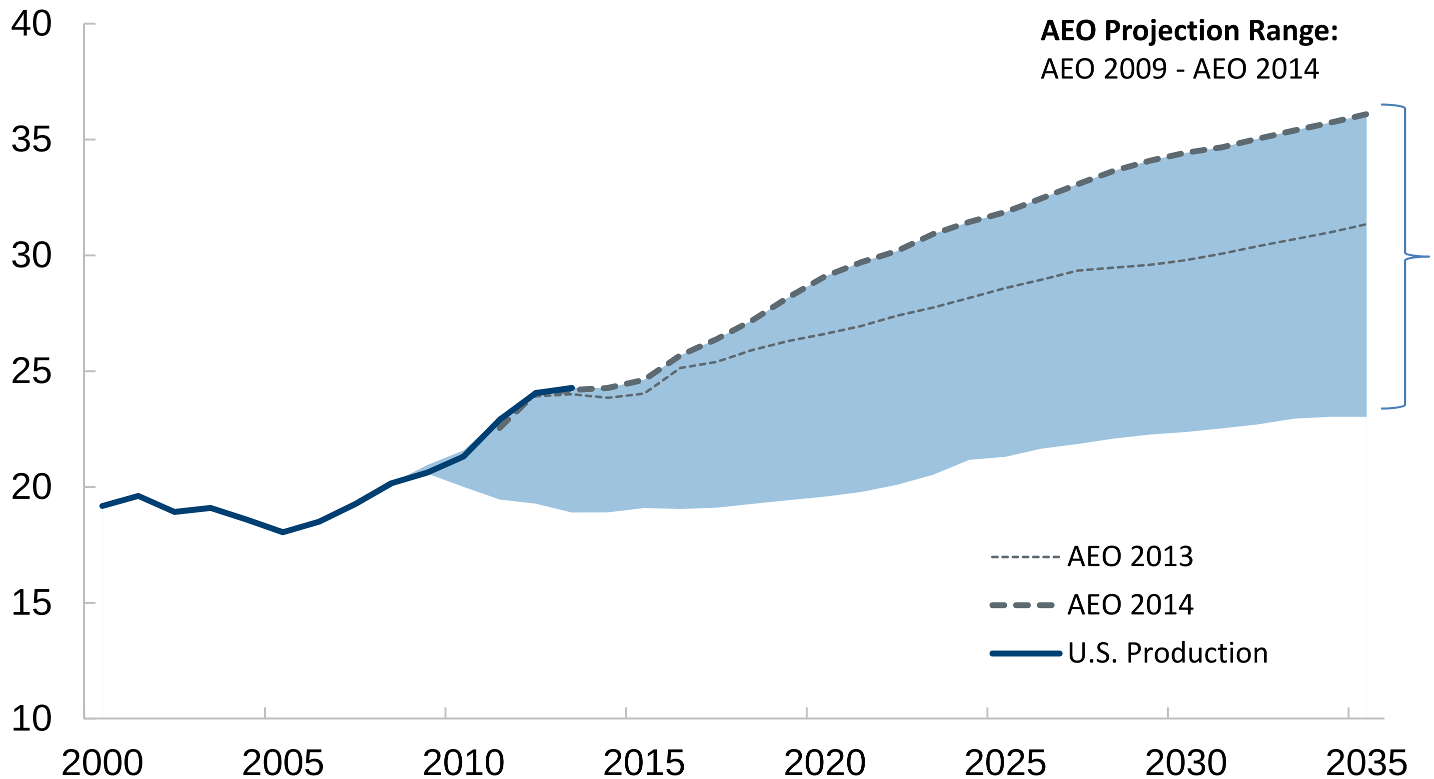
Natural Gas Production (TCF): Reference



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.

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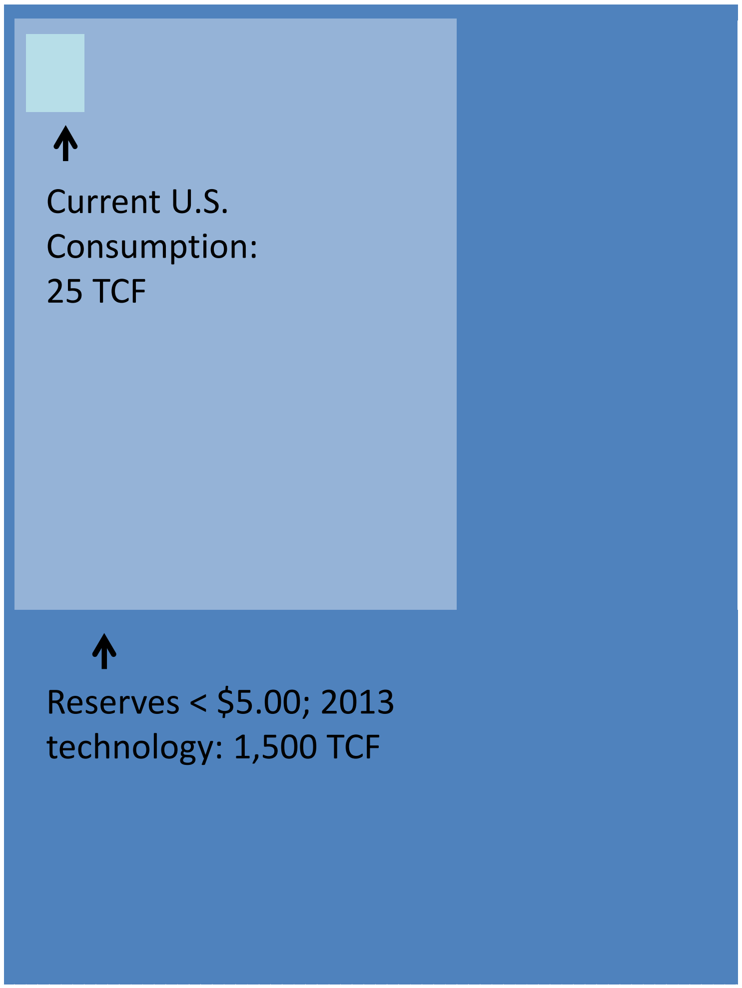
Can We Meet Added Demand?



US and Canadian Reserves

Technically Recoverable
Reserves 2013 technology:
4,000 TCF

Source: EIA, ICF

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ANGA Demand Focus

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

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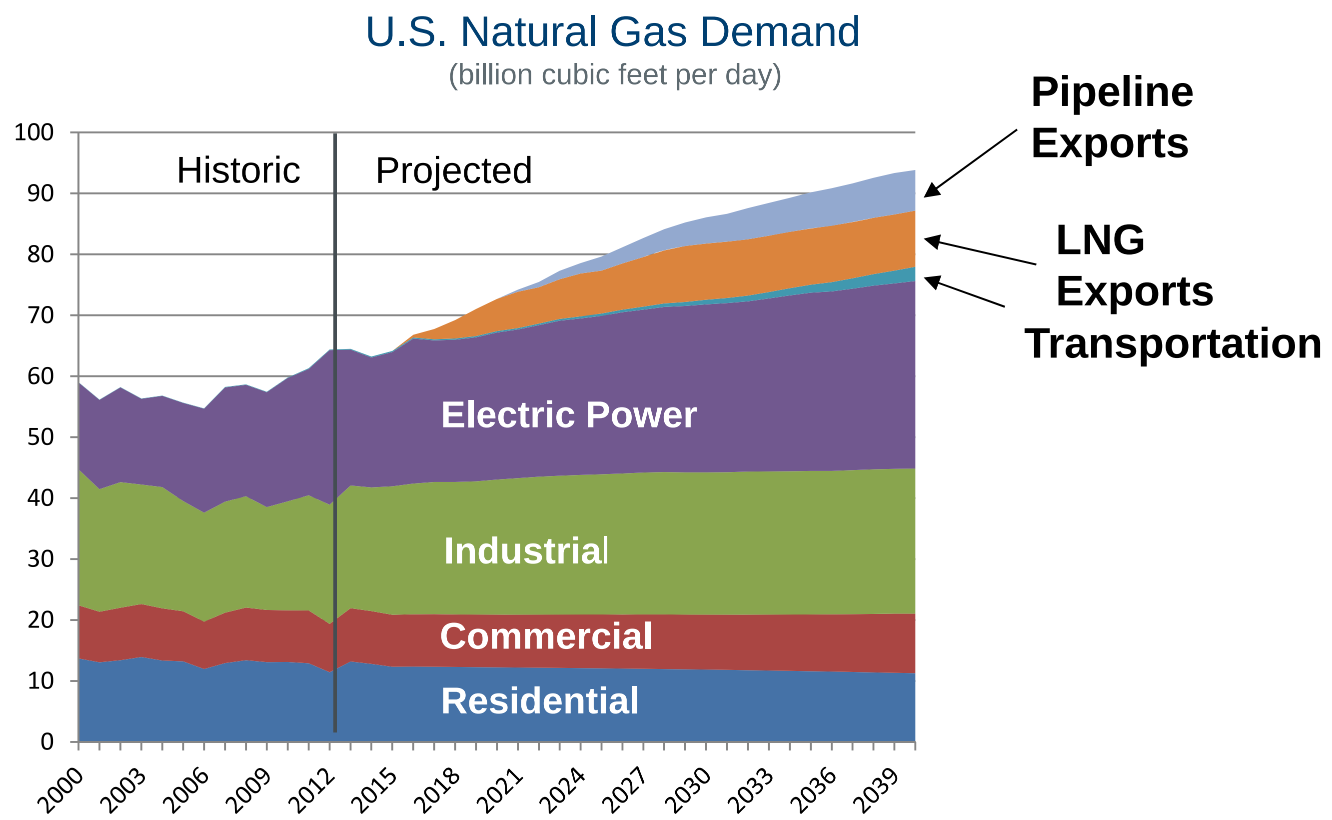
Natural Gas Demand Growth



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

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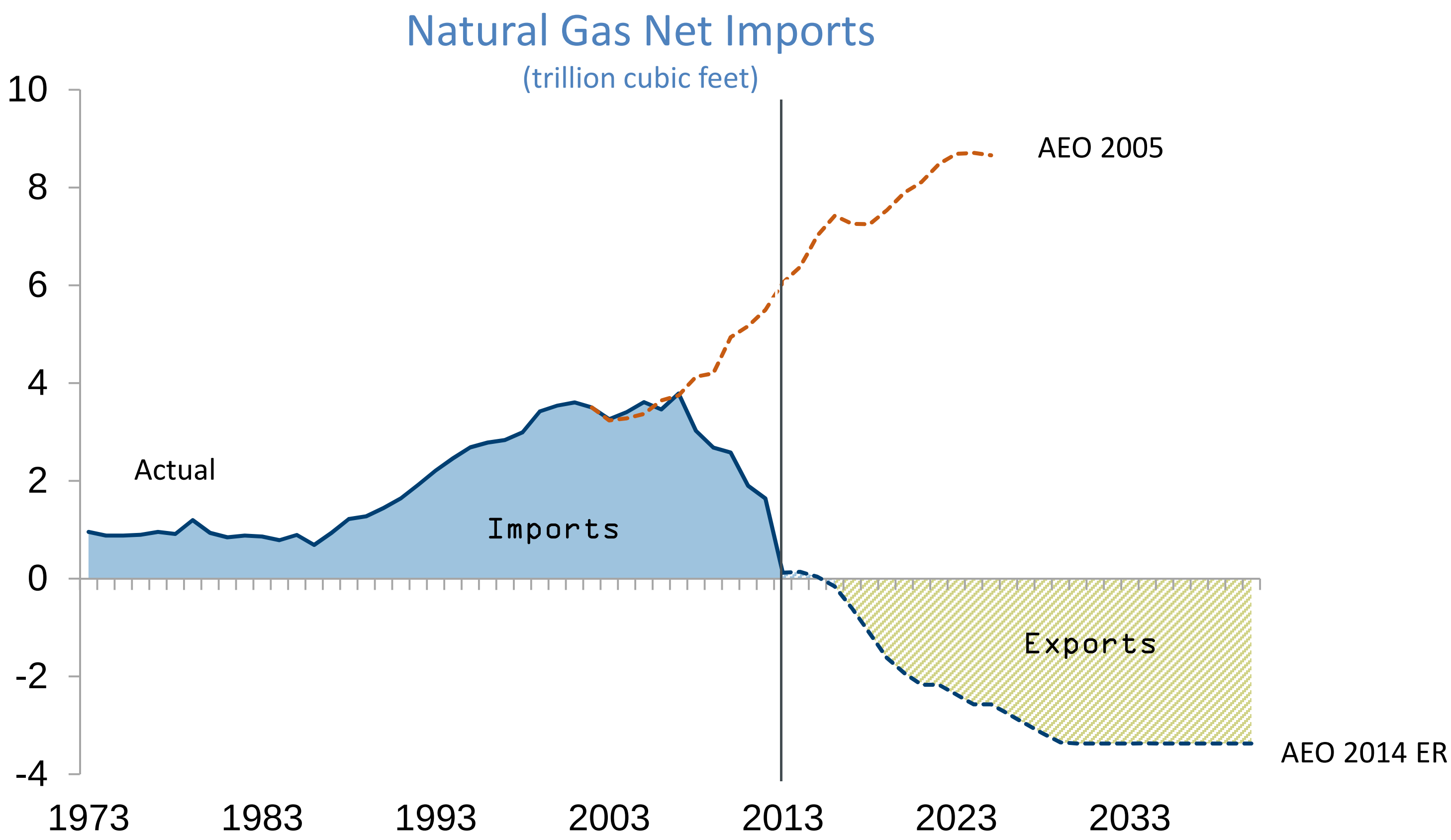
LNG Exports - Paradigm Shift



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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

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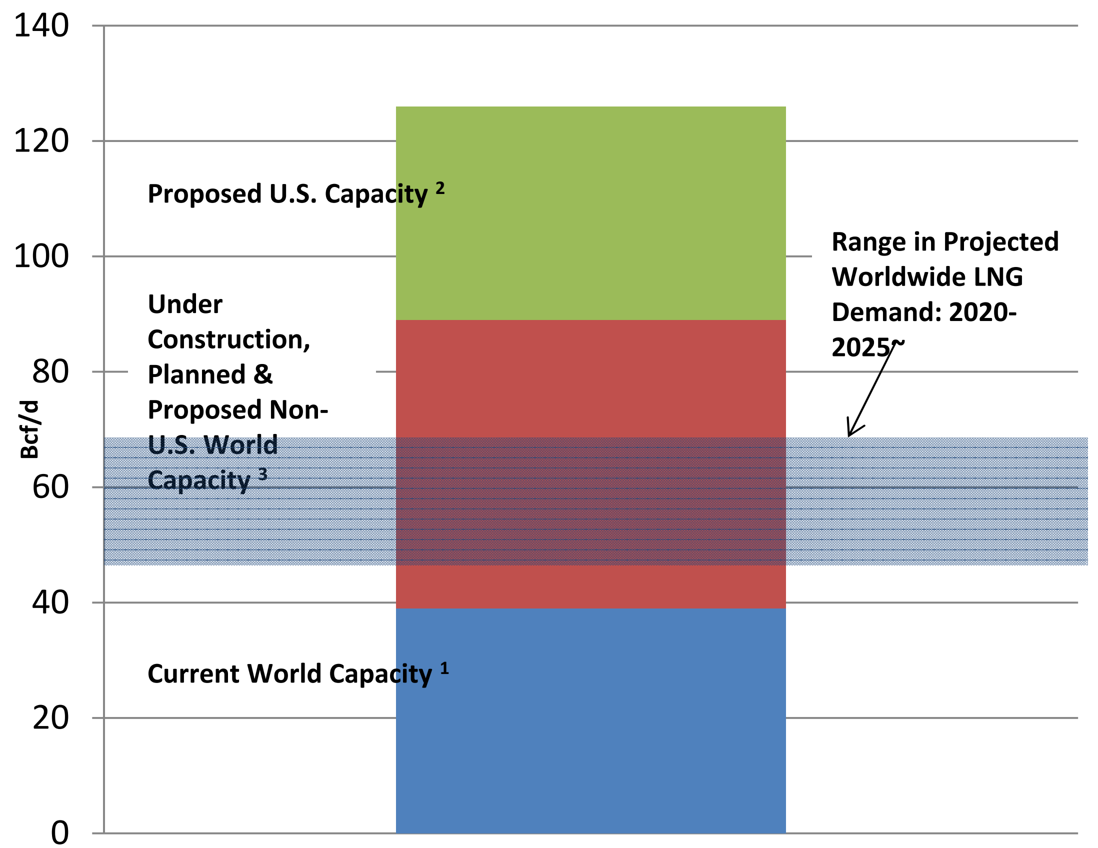
Window of Opportunity



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

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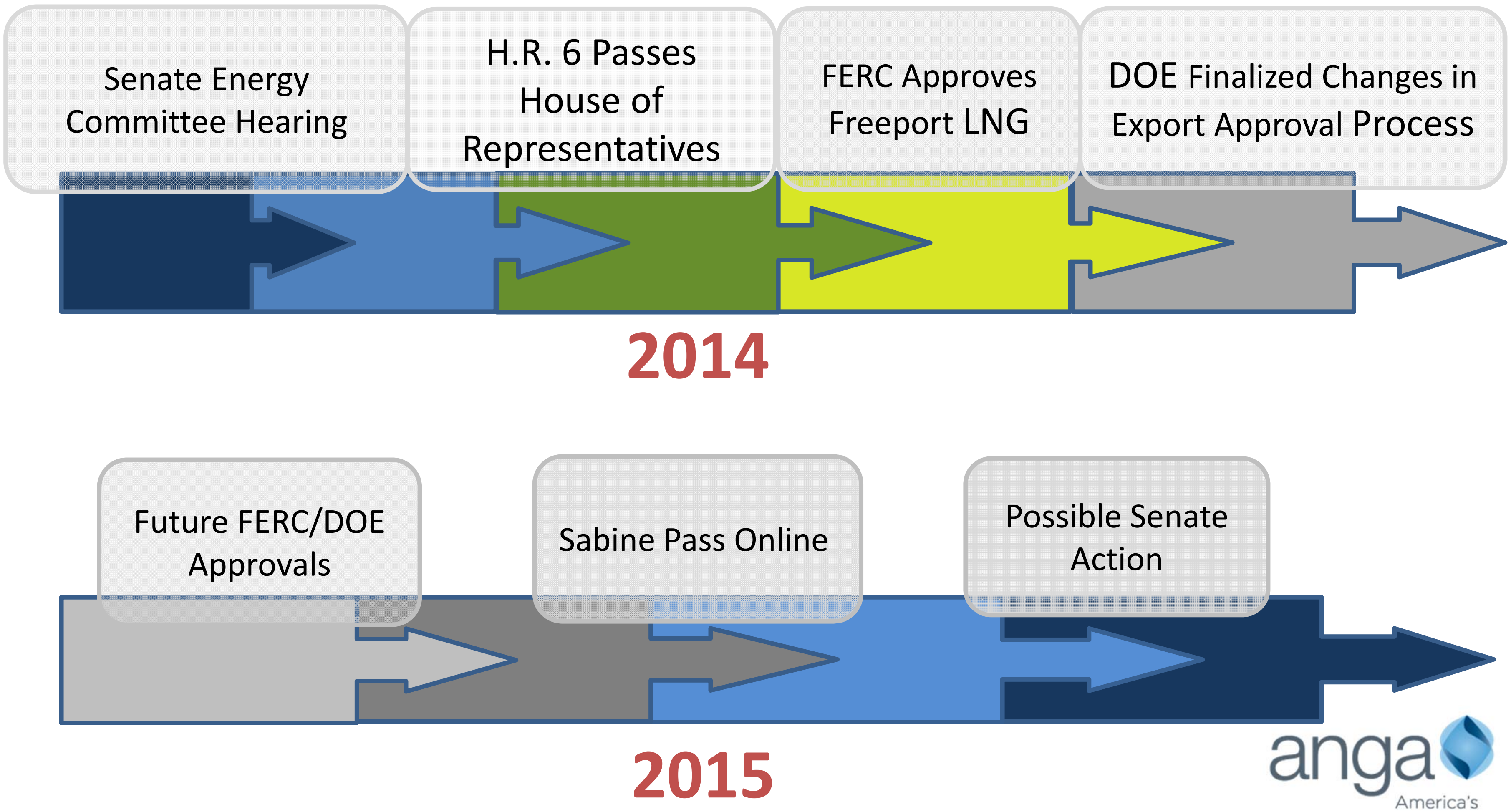
LNG Exports Timeline



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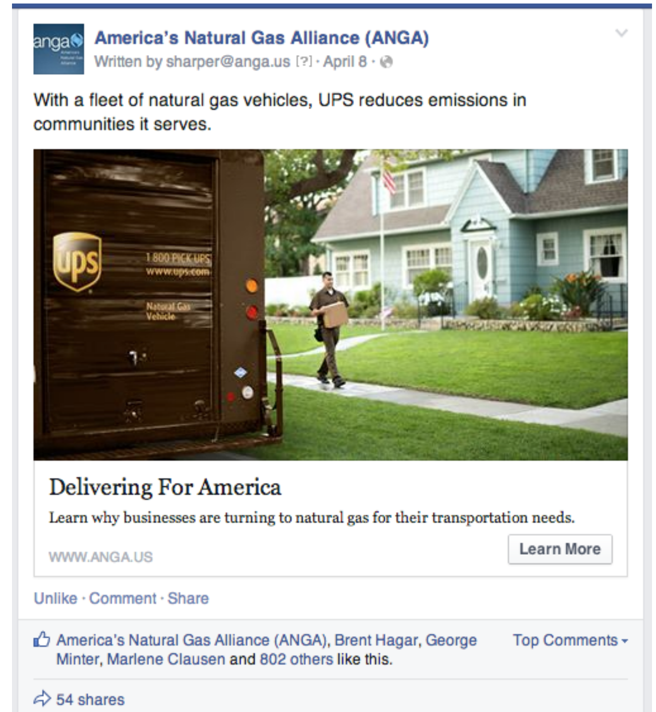
Think About It

A cleaner commute for Los Angeles.



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