### The U.S. Natural Gas Market in Focus

Current and Projected Supply and Demand Conditions















for

*Flame* 2012

April 17, 2012 / Amsterdam, The Netherlands

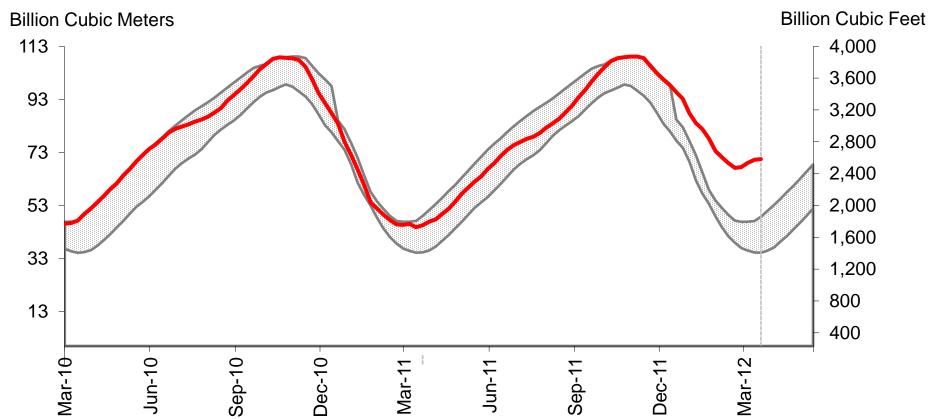
by

Howard Gruenspecht, Acting Administrator



# U.S. natural gas storage has reached an unprecedented high for this time of year

Working Gas in Underground Storage Compared with 5-Year Range

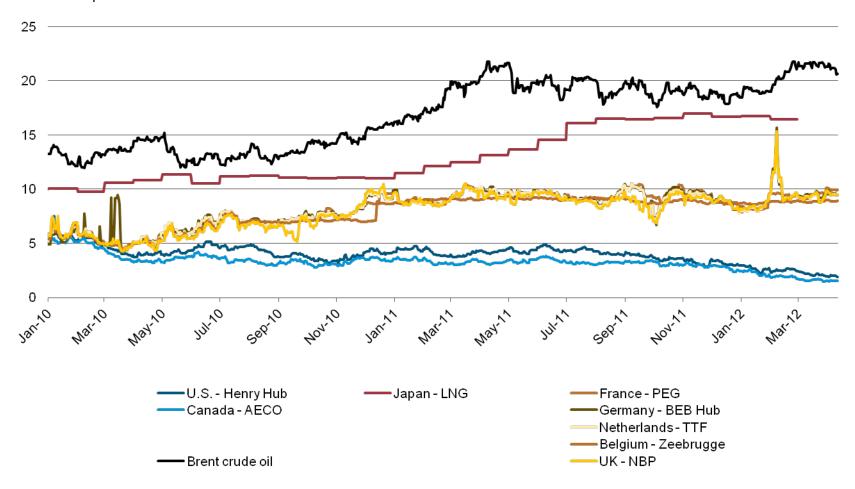


Source: EIA Weekly Natural Gas Storage Report as of April 6, 2012



## U.S. natural gas spot prices are very low compared to prices in other regions and oil prices

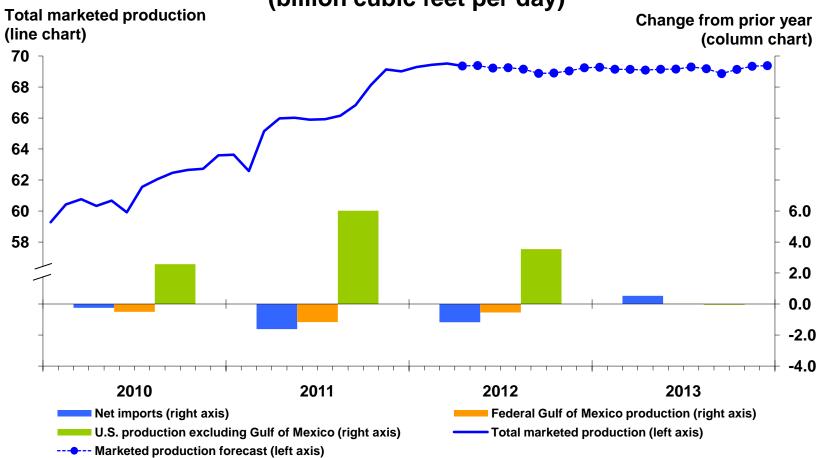
Global spot natural gas and crude oil prices with average monthly LNG prices in Japan U.S. dollars per million British thermal unit



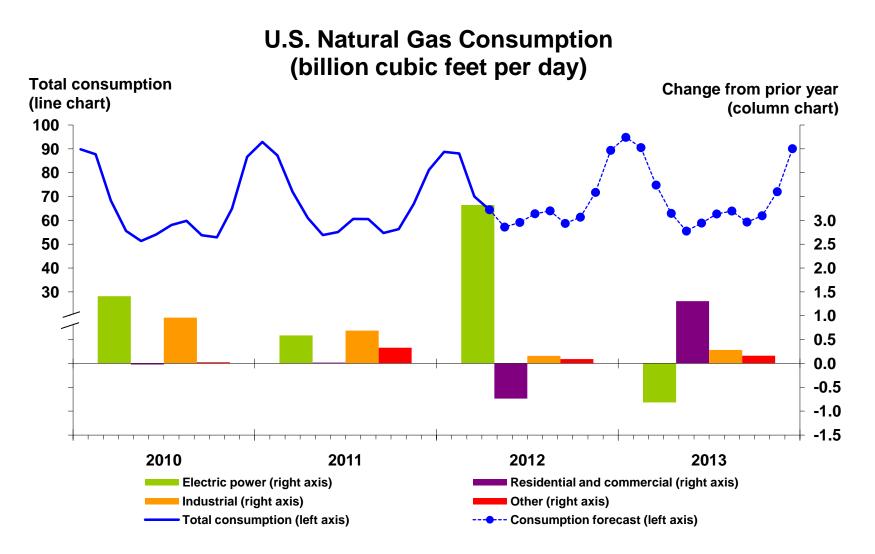
Sources: EIA, Bloomberg, as of April 10, 2012



U.S. Natural Gas Production and Imports (billion cubic feet per day)

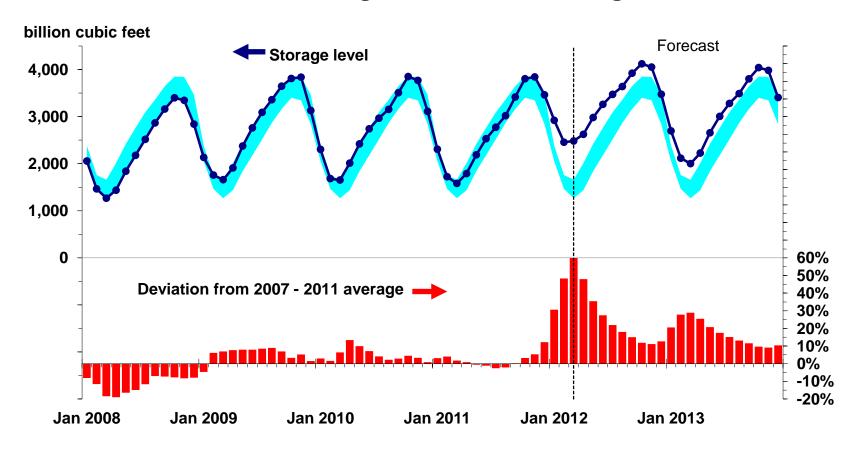








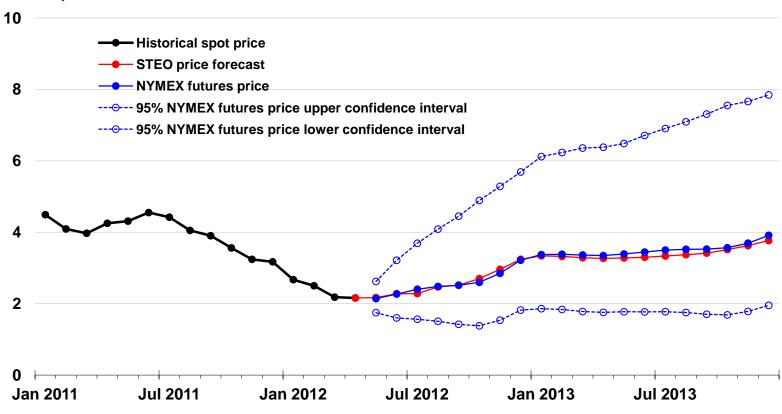
#### **U.S. Working Natural Gas in Storage**



Note: Colored band around storage levels represents the range between the minimum and maximum from Jan. 2007 - Dec. 2011.

#### **Henry Hub Natural Gas Price**

#### dollars per million Btu



Note: Confidence interval derived from options market information for the 5 trading days ending April 5, 2012 Intervals not calculated for months with sparse trading in "near-the-money" options contracts



# Foreign joint venture investment in U.S. shale gas and tight oil plays

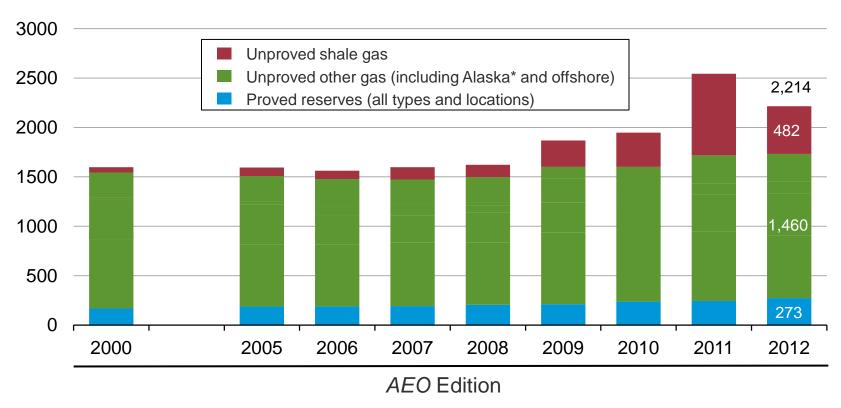
Foreign	Domestic		Amount		
Partner	Country	Partner	Shale Play	(\$B)	Year
British Petroleum	UK	Chesapeake	Woodford	1.70	2008
British Gas	UK	EXCO	Marcellus	0.95	2009
StatoilHydro	Norway	Chesapeake	Marcellus	3.38	2009
Reliance	India	Pioneer	Eagle Ford	1.36	2010
Reliance	India	Atlas	Marcellus	1.70	2010
Reliance	India	Carrizo	Marcellus	0.39	2010
Total	France	Chesapeake	Barnett	2.25	2010
CNOOC	China	Chesapeake	Niobrara	0.57	2010
British Gas	UK	EXCO	Haynesville	1.30	2010
Mitsui	Japan	Anadarko	Marcellus	1.40	2010
CNOOC	China	Chesapeake	Eagle Ford	1.08	2011
KNOC	Korea	Anadarko	Eagle Ford	1.55	2011
Marubeni	Japan	Marathon	Niobrara	0.27	2011
Mitsui	Japan	SM Energy	Eagle Ford	0.68	2011
GAIL	India	Carrizo	Eagle Ford	0.10	2011
Total	France	Chesapeake/EnerVest	Utica	2.30	2012
Sinopec	China	Devon	TMS, Niobrara,Utica	2.20	2012
Marubeni	Japan	Hunt Oil	Eagle Ford	1.30	2012
Total				24.82	

Source: EIA, from trade press reports as of 27 February 2012



### Technically recoverable natural gas resources reflect updated assessments

U.S. dry gas resources trillion cubic feet

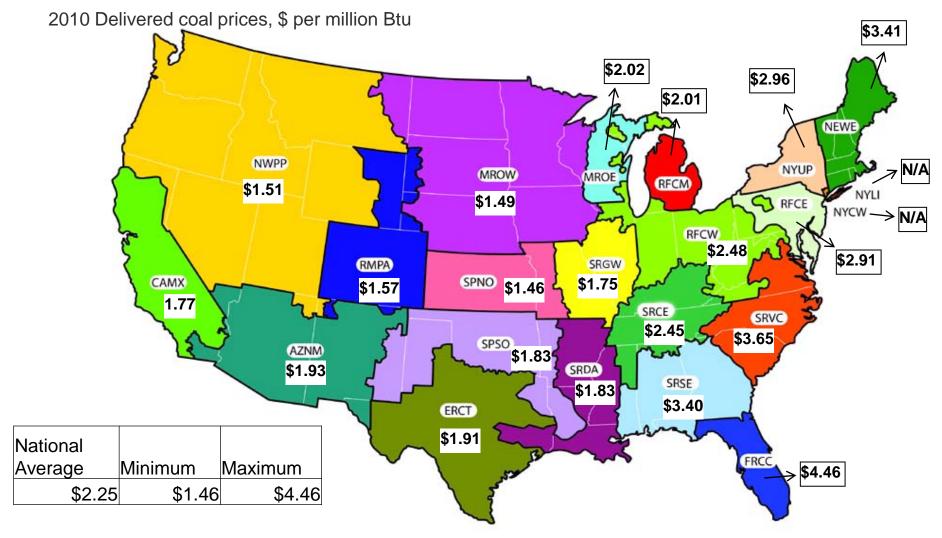


<sup>\*</sup>Alaska resource estimates prior to AEO2009 reflect resources from the North Slope that were not included in previously published documentation.

Source: EIA, Annual Energy Outlook



# The average delivered price of coal to electricity generators varies widely across U.S. regions – transport costs are a key reason

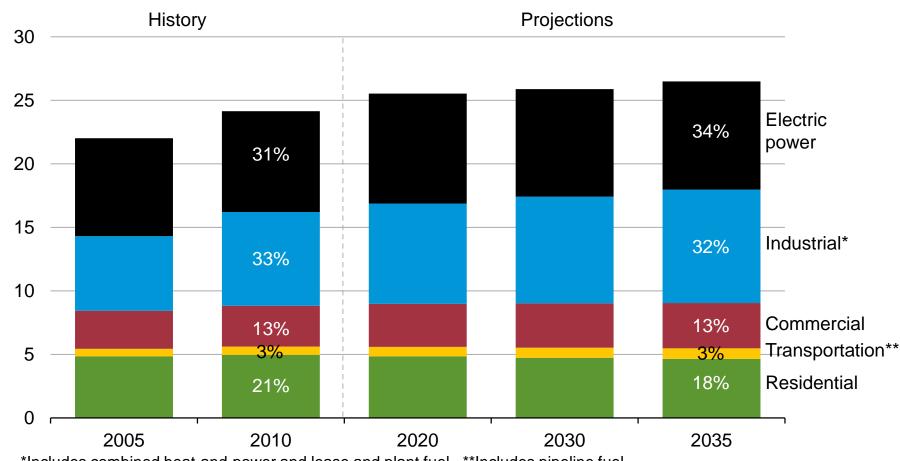


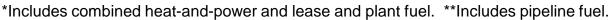
Source: EIA, Annual Energy Outlook 2012 Early Release



# Natural gas consumption is quite dispersed; electric power and industrial use drives much of the future demand growth

U.S. dry gas consumption trillion cubic feet per year



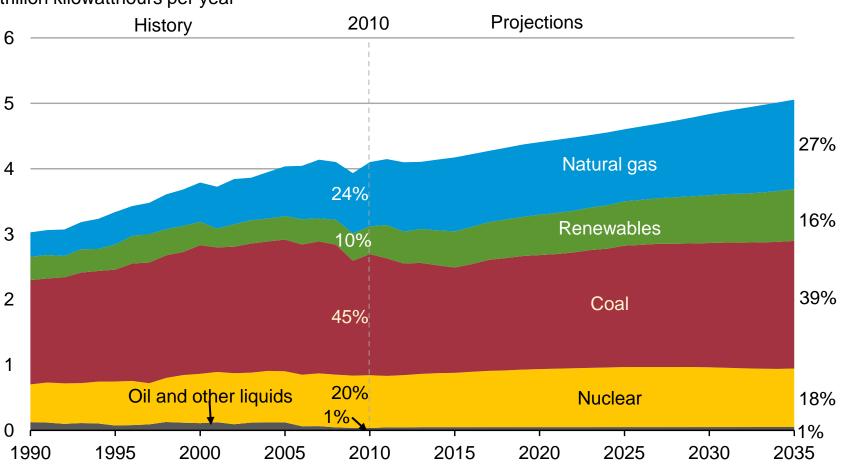


Source: EIA, Annual Energy Outlook 2012 Early Release



# Electricity mix gradually shifts to lower-carbon options, led by growth in renewables and natural gas

electricity net generation trillion kilowatthours per year

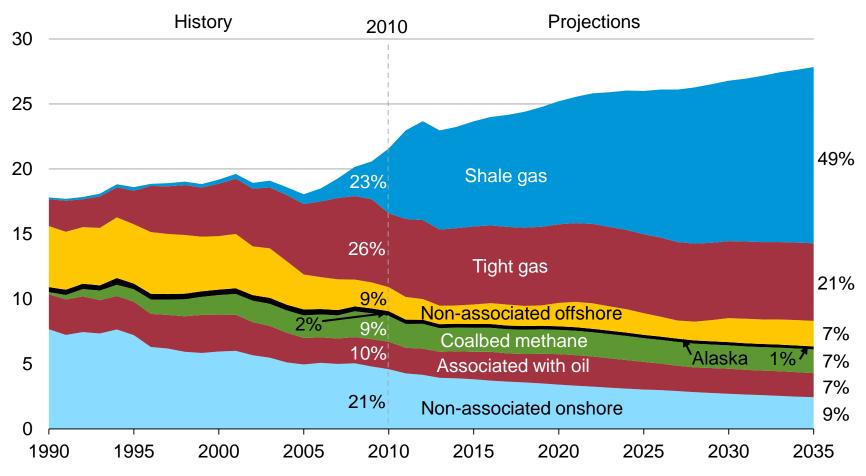


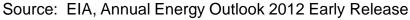
Source: EIA, Annual Energy Outlook 2012 Early Release



### Shale gas offsets declines in other U.S. natural gas production sources

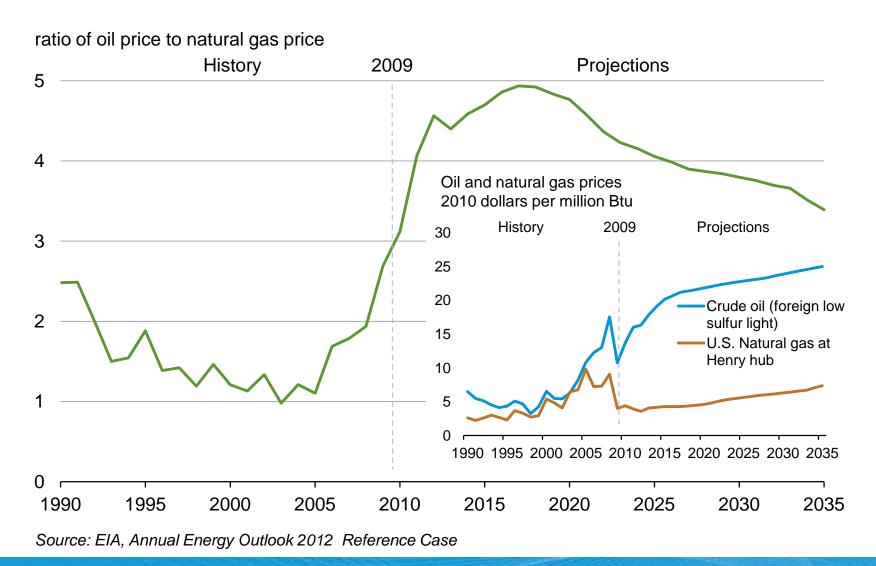
U.S. dry gas production trillion cubic feet per year







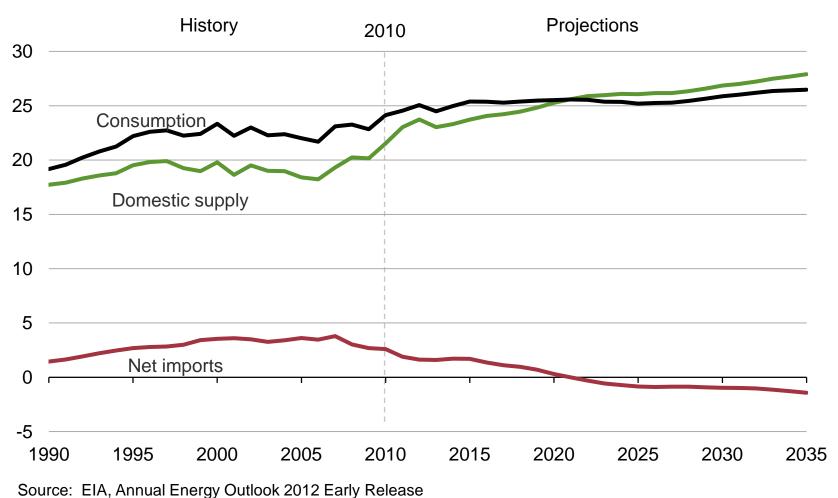
#### Oil to natural gas price ratio remains high over the projection





#### Domestic natural gas production grows faster than consumption

U.S. dry gas trillion cubic feet per year





#### For more information

U.S. Energy Information Administration home page | www.eia.gov

Short-Term Energy Outlook | www.eia.gov/steo

Annual Energy Outlook | www.eia.gov/aeo

International Energy Outlook | www.eia.gov/ieo

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