

# NATURAL GAS

**UP Energy Summit**

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## Rethinking Natural Gas

**Richard Meyer**

**Energy Analyst, Policy Analysis**

**American Gas Association**



# Delivering natural gas that fuels America's way of life

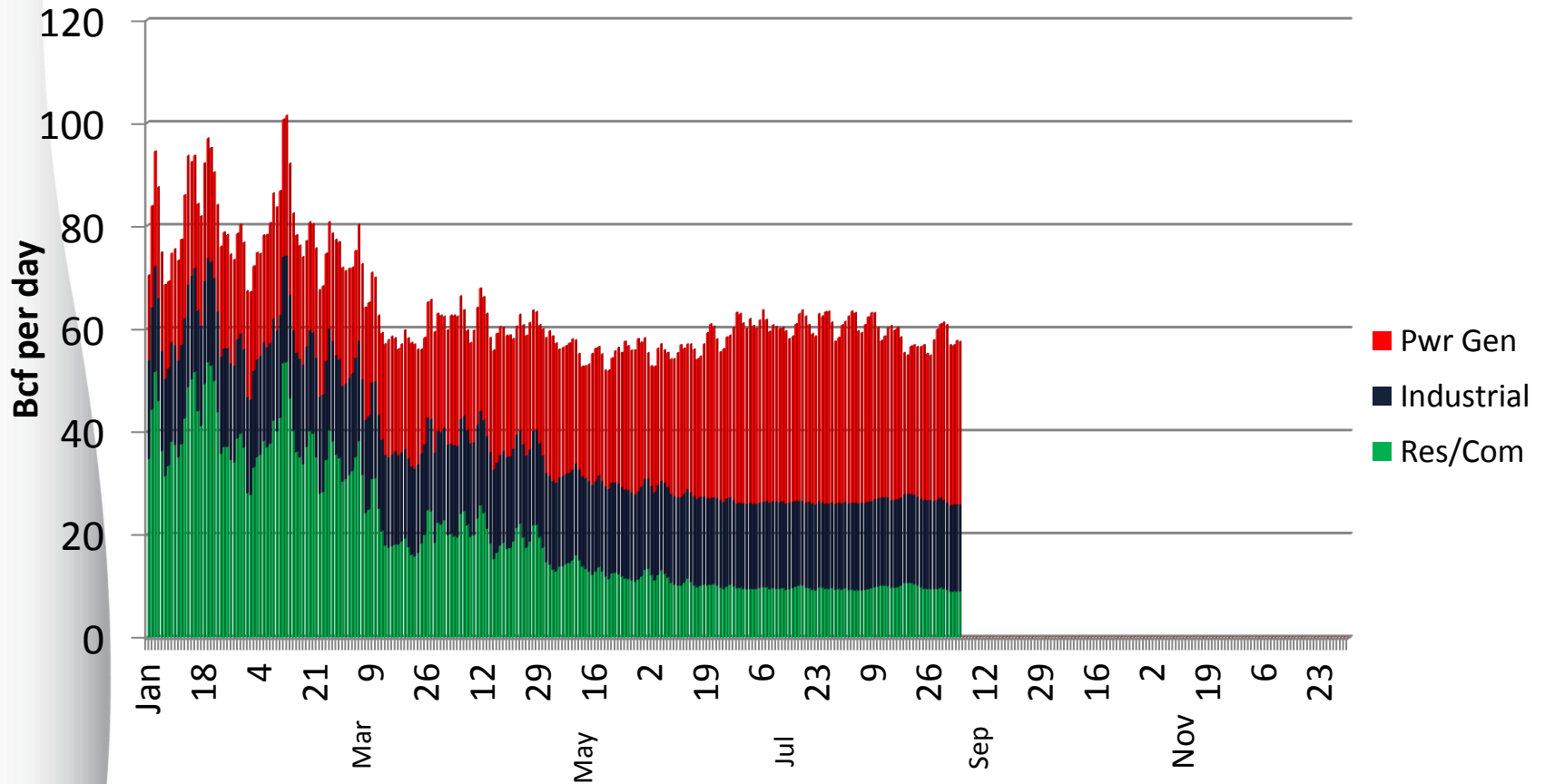
- The American Gas Association (AGA), founded in 1918, represents local natural gas companies that cleanly fuel the way of life of 175 million Americans nationwide
- 2.4 million miles of pipeline
- 92% of the residential and commercial customers receive natural gas from AGA member companies.



**Is this your grandfather's  
natural gas industry?**

# Daily Natural Gas Consumption by Sector

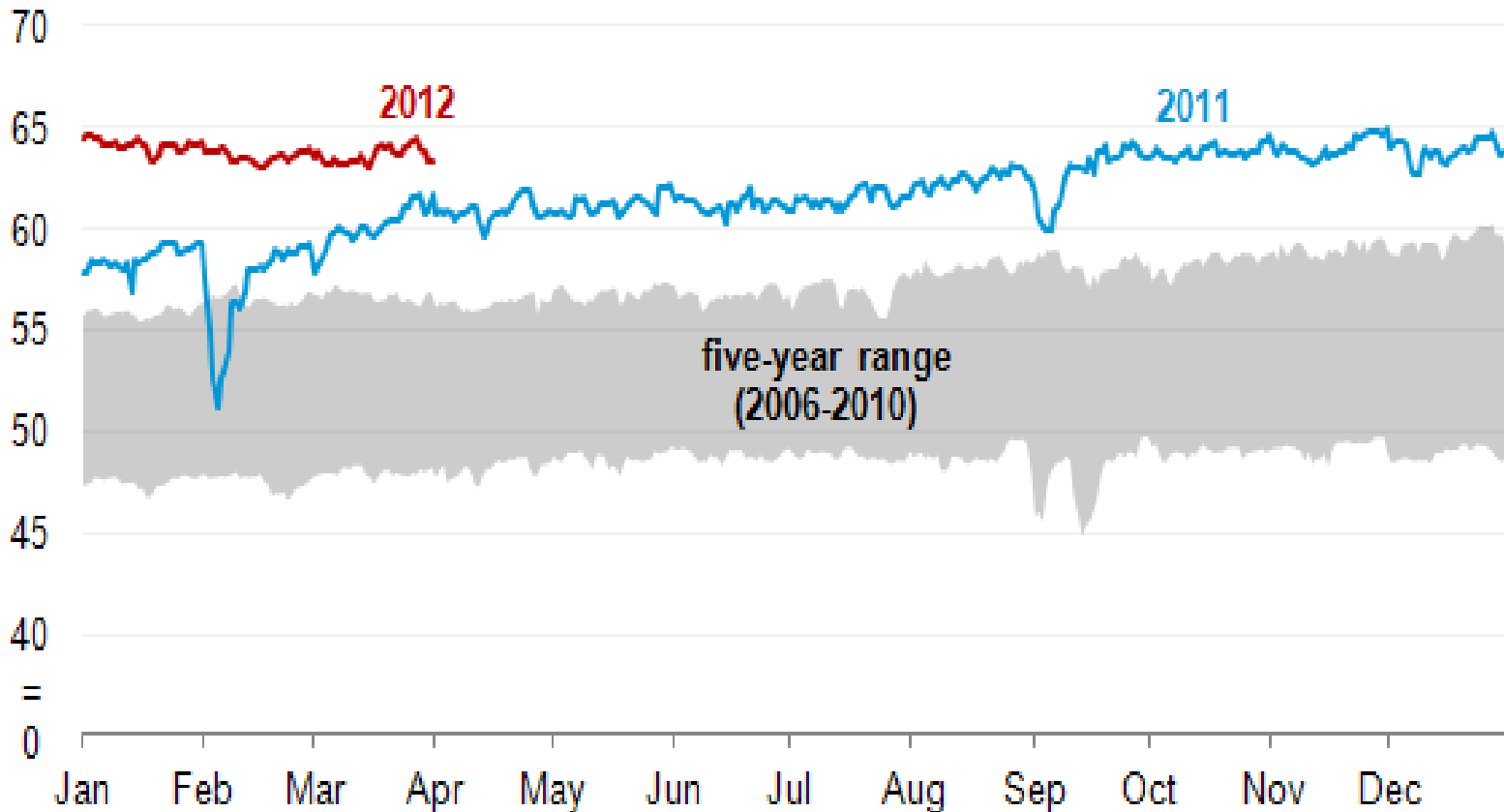
January 1-September 4, 2011



Source: Bentek Energy LLC, *Energy Market Fundamentals*, September 4, 2012.

# Daily Natural Gas Production

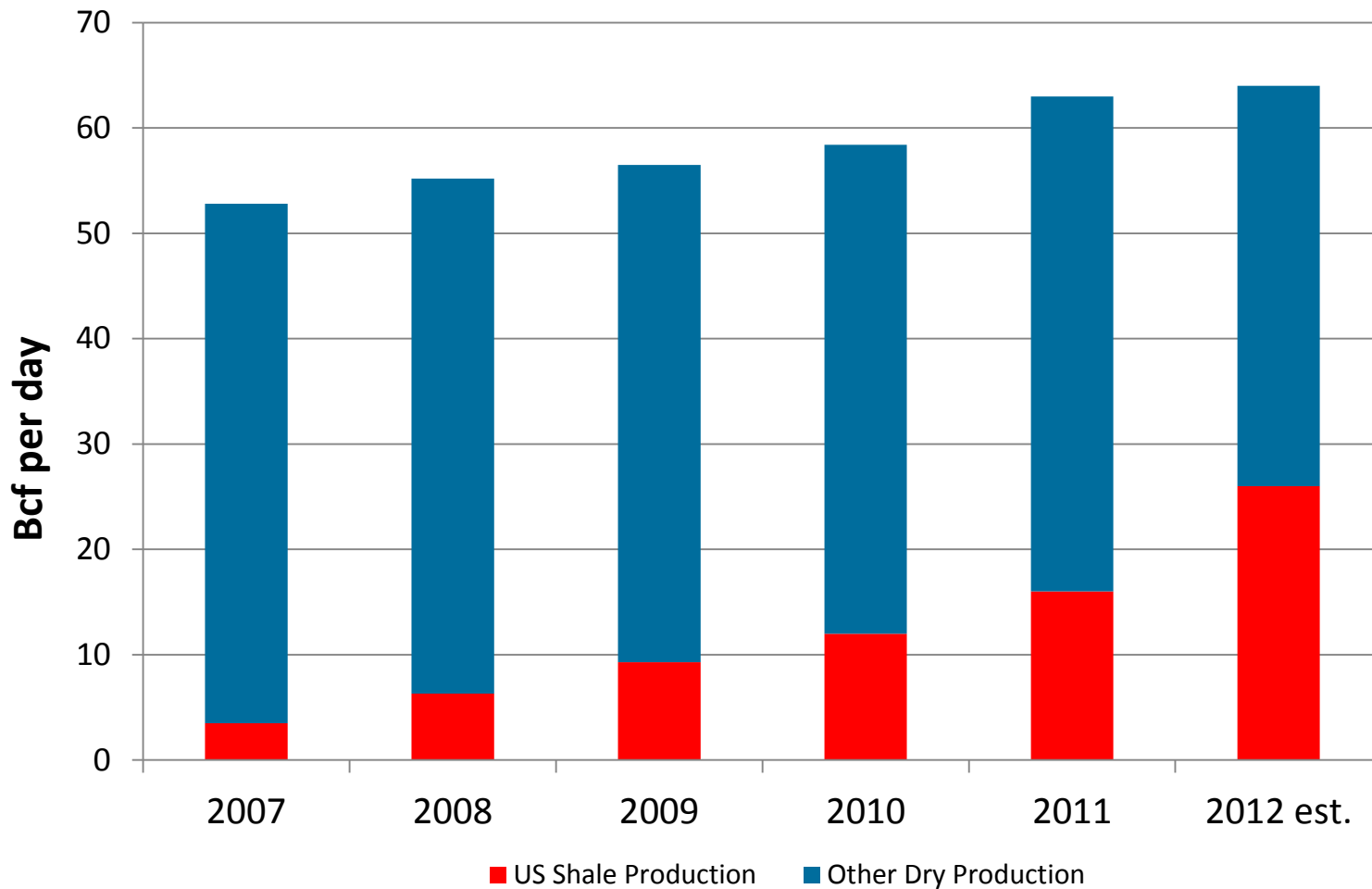
Estimated U.S. daily dry natural gas production  
billion cubic feet per day



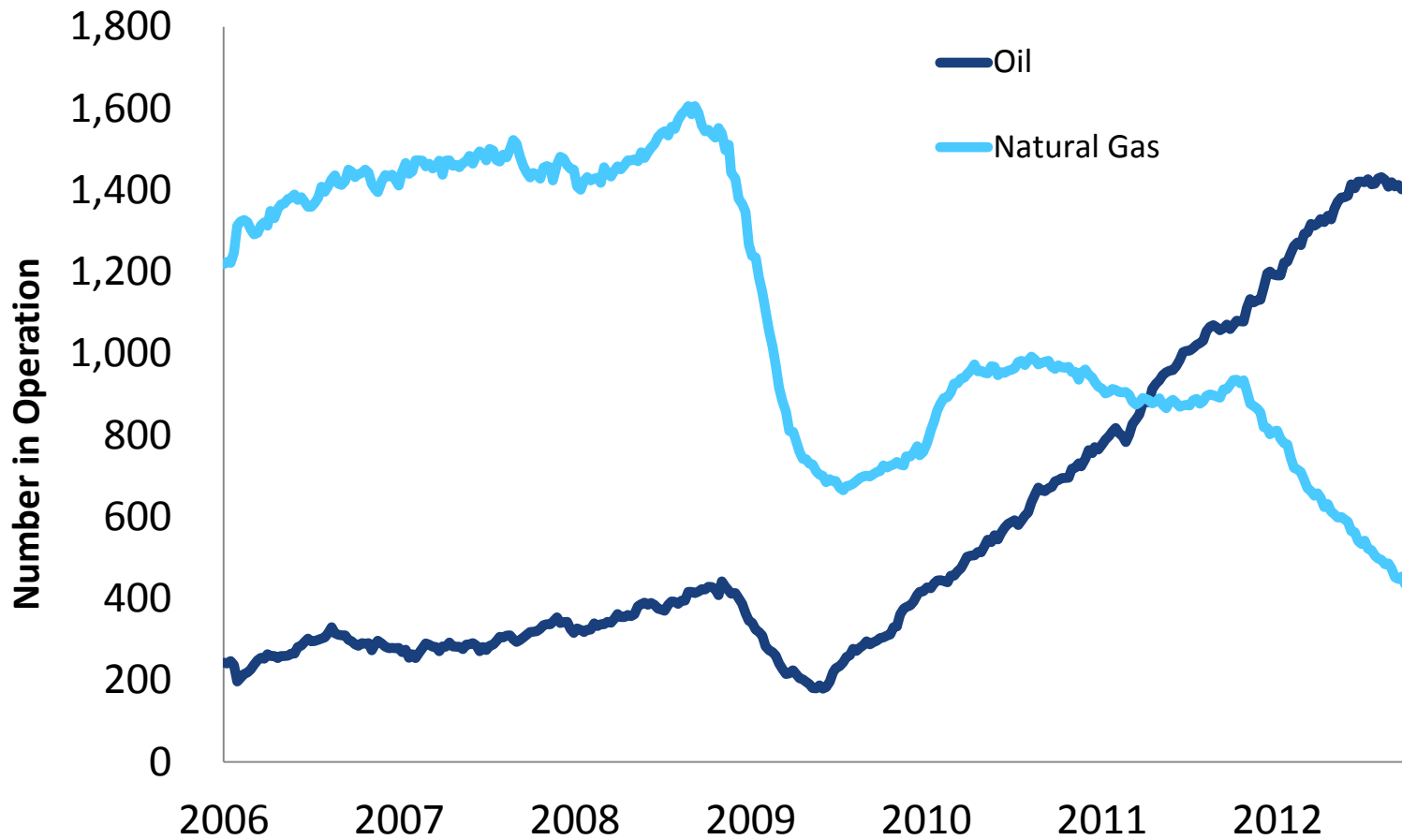
Source: Energy Information Administration, U.S. Department of Energy.

# U.S. Shale Gas Production

Energy information Administration

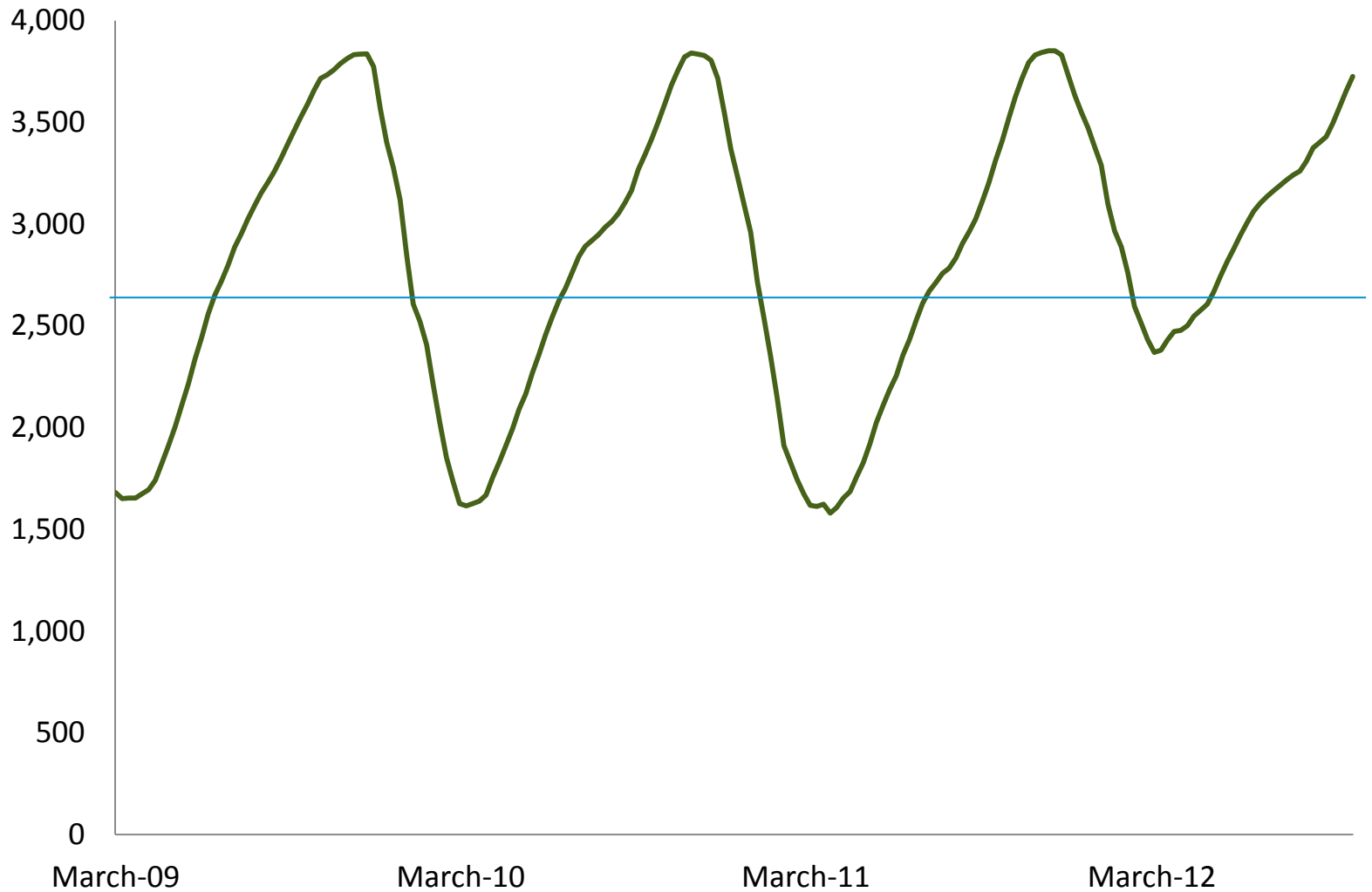


# U.S. Rotary Rig Count



Source: Baker Hughes

## Working Gas in Underground Storage Lower 48 States (Bcf)



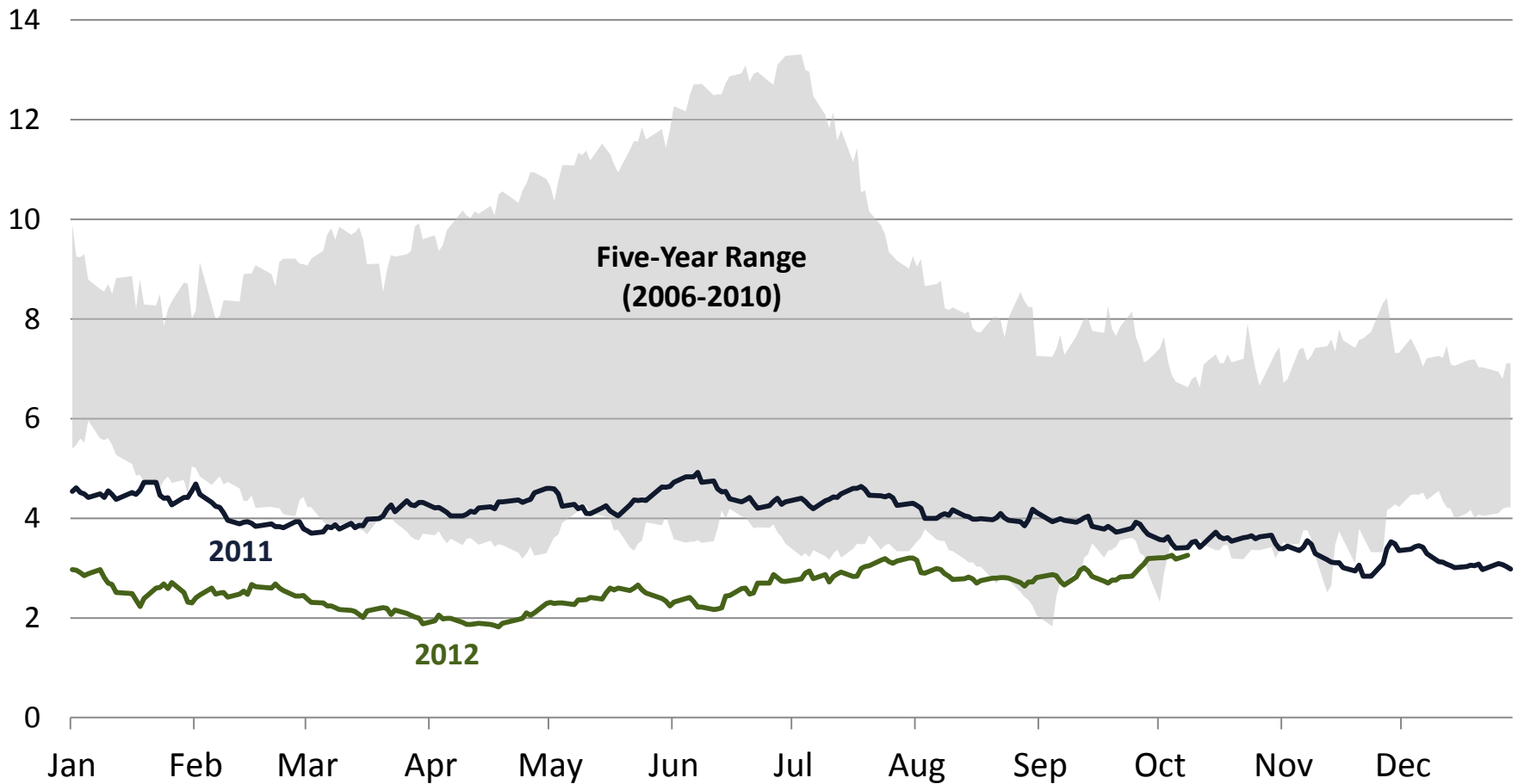
Source: U.S. Department of Energy, Energy Information Administration.



# A real impact on natural gas prices

Dollars per Million BTU

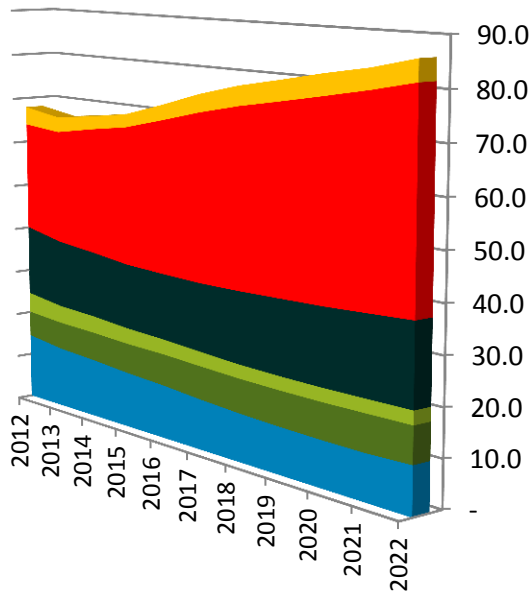
## Natural Gas Spot Price at Henry Hub



Source: U.S. Department of Energy, Energy Information Administration.

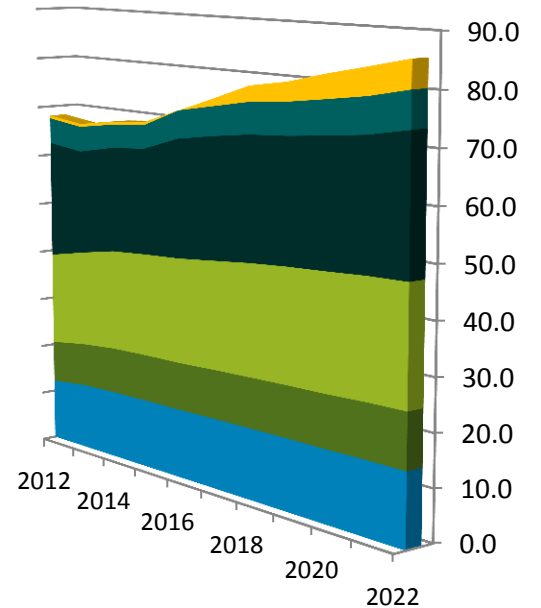
# Supporting Increases in *Demand*

## Natural Gas Supply



- Conventional
- Coal Bed Methane
- Shale
- Associated
- Tight
- Pipeline Net Imports

## Natural Gas Use

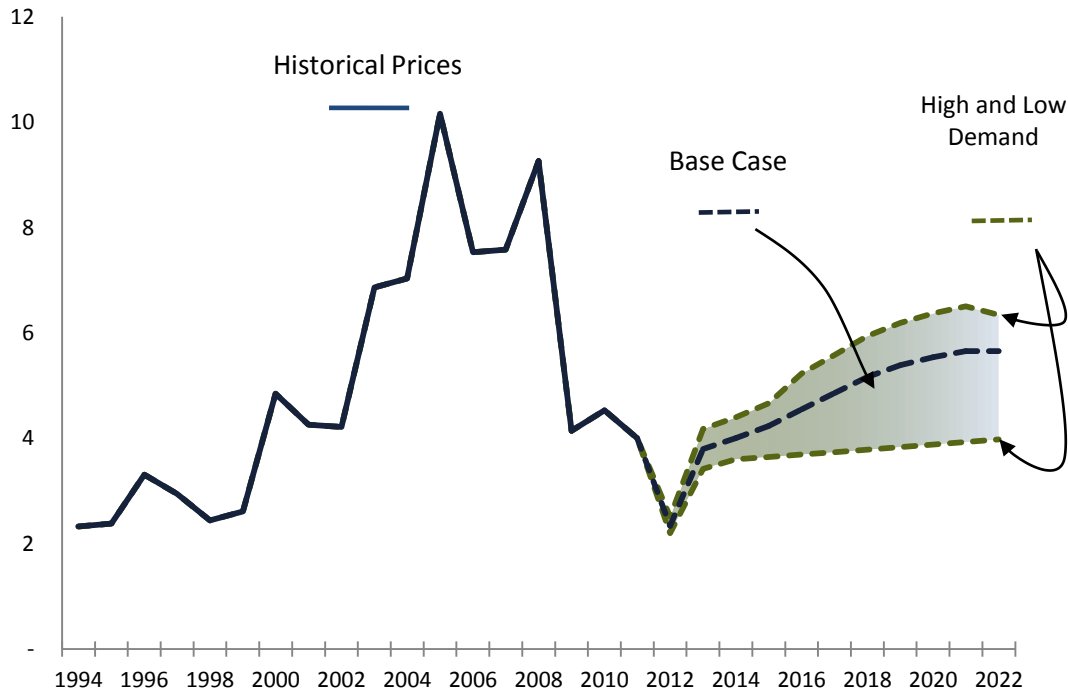


- Residential
- Industrial
- Commercial
- Power
- Other
- LNG Net Exports

(Billion Cubic Feet per Day)

# A Future of *Market Stability*

Henry Hub Spot  
Price  
\$2011/MMBtu

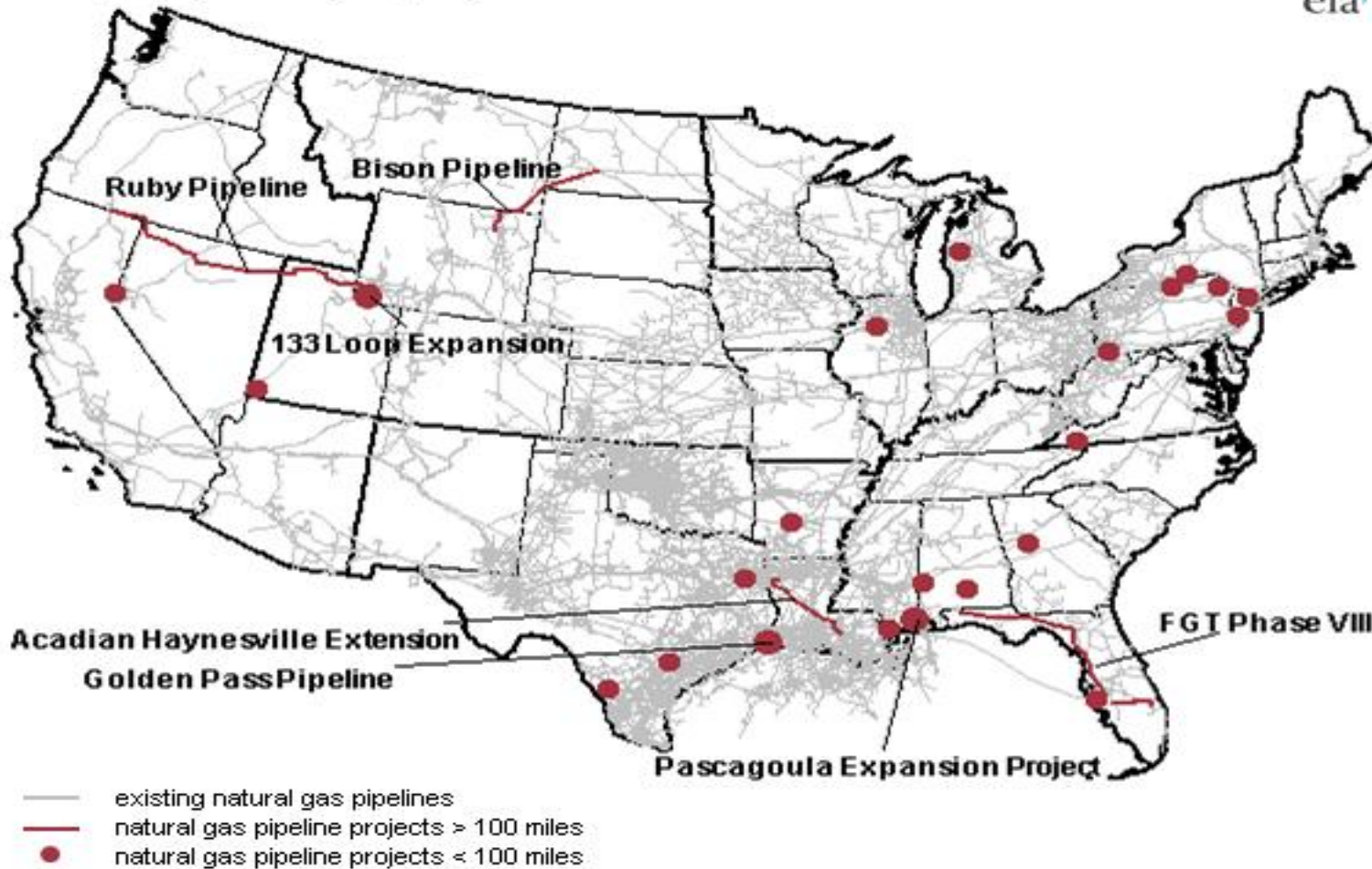


*Relative natural gas market stability during the next ten years —an outlook that supports responsible resource development and reflects continued advancements in extraction and impacts technology*

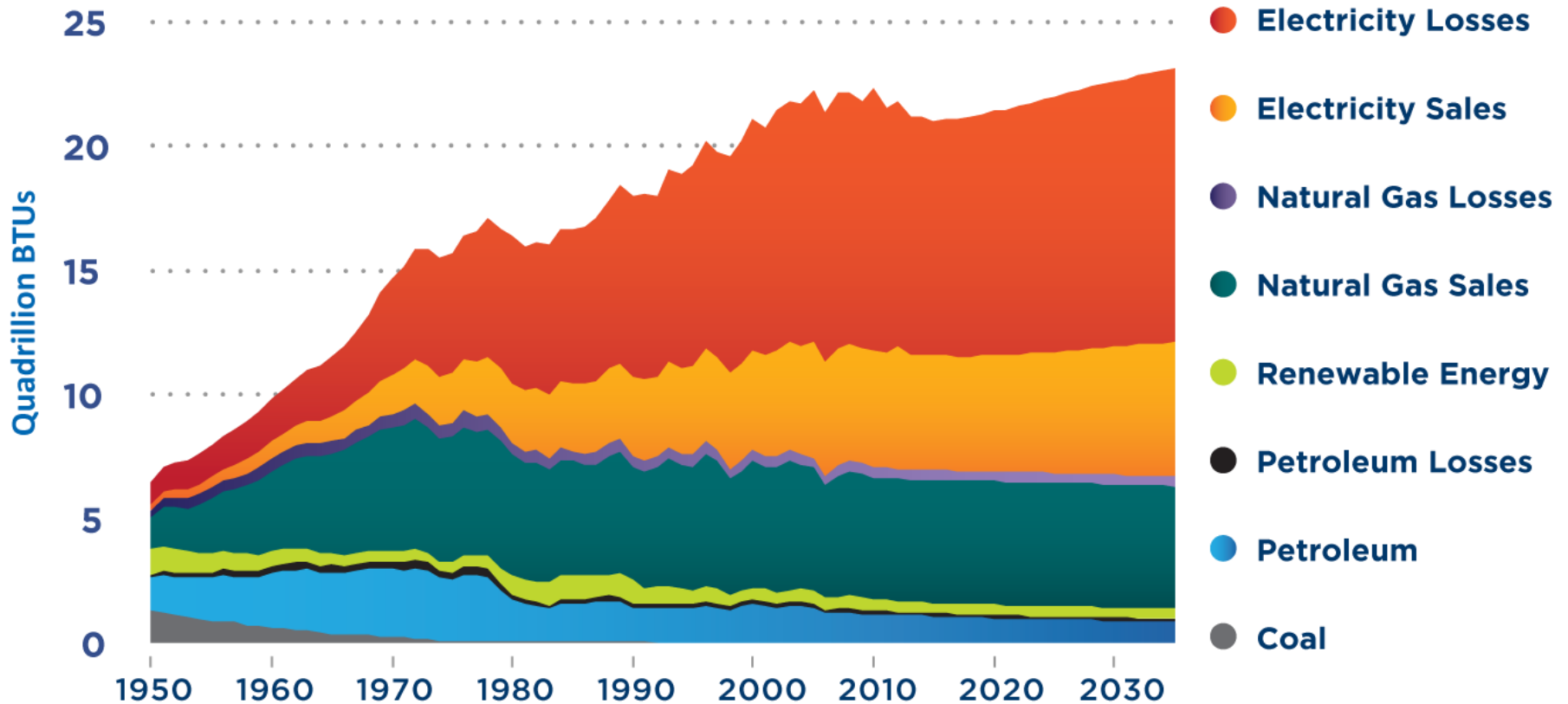
Source: *Rethinking Natural Gas, A Future for Natural Gas in the U.S. Economy*, p. 6, American Gas Association, © 2012, citing Source: Wood MacKenzie Spring 2012. See paper for outlook limitations.

# New infrastructure will be needed

Natural gas pipeline capacity expansions, 2011



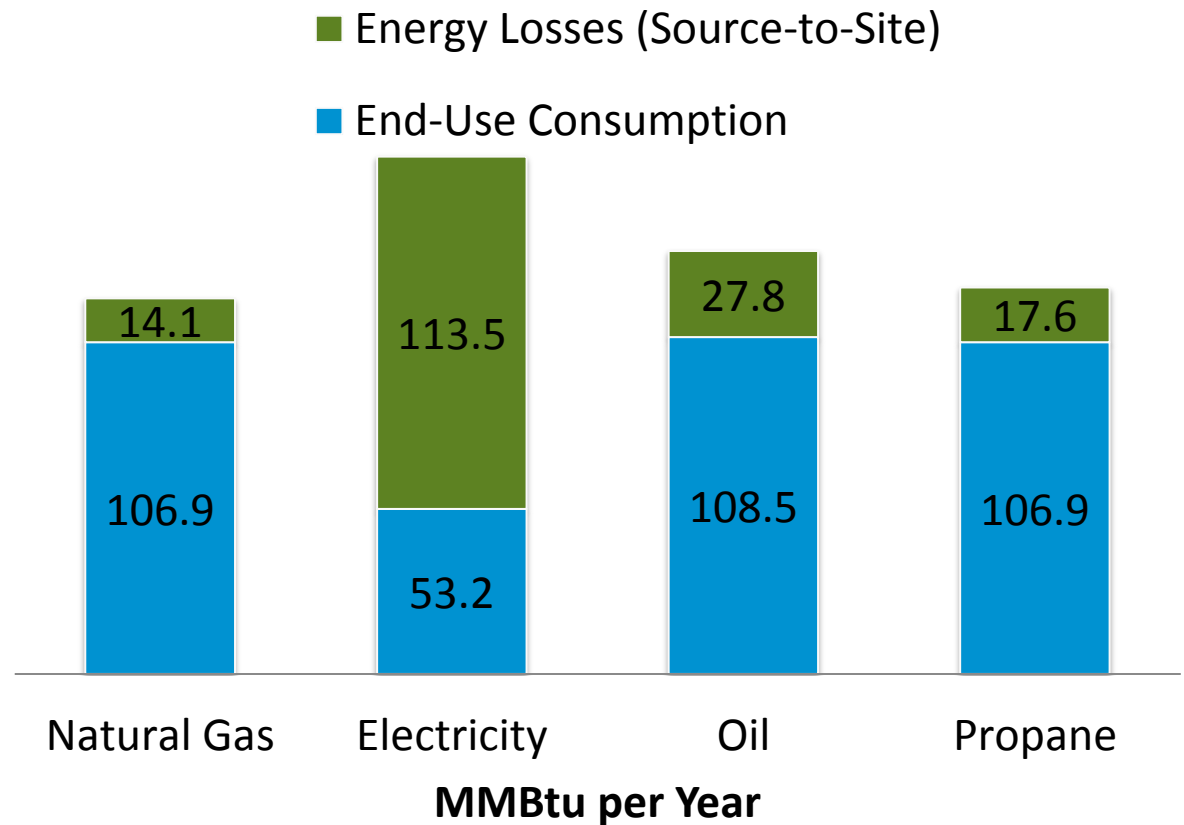
# Residential Energy Consumption



The loss of usable energy associated with electricity equals about half of the total energy consumed in the residential and commercial sectors

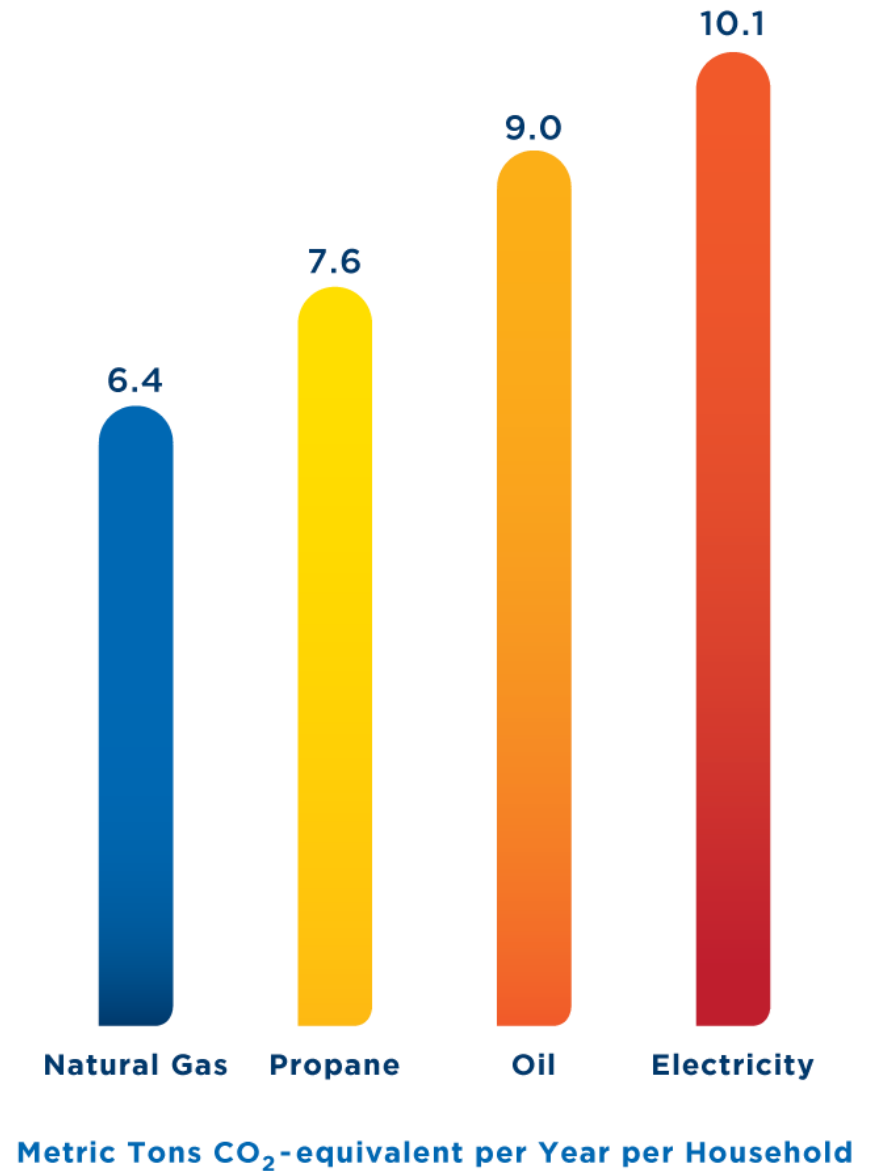
*USING LESS ENERGY*

# Average Energy Use and Losses for a New Home



# Full-fuel-cycle Greenhouse Gas Emissions of a Typical Household

Natural gas used in homes  
reduces greenhouse gas  
emissions



# Thanks

**Richard Meyer**

**Energy Analyst, Policy Analysis**

[rmeyer@aga.org](mailto:rmeyer@aga.org)







[www.aga.org](http://www.aga.org)

The American Gas Association, founded in 1918, represents 201 local energy companies that deliver clean natural gas throughout the United States. There are more than 70 million residential, commercial and industrial natural gas customers in the United States, of which 91% — more than 64 million customers — receive their gas from AGA members. Today, natural gas meets almost one-fourth of the United States' energy needs.