

EIA Short-Term Energy and Winter Fuels Outlook



for

National Association of State Energy Officials

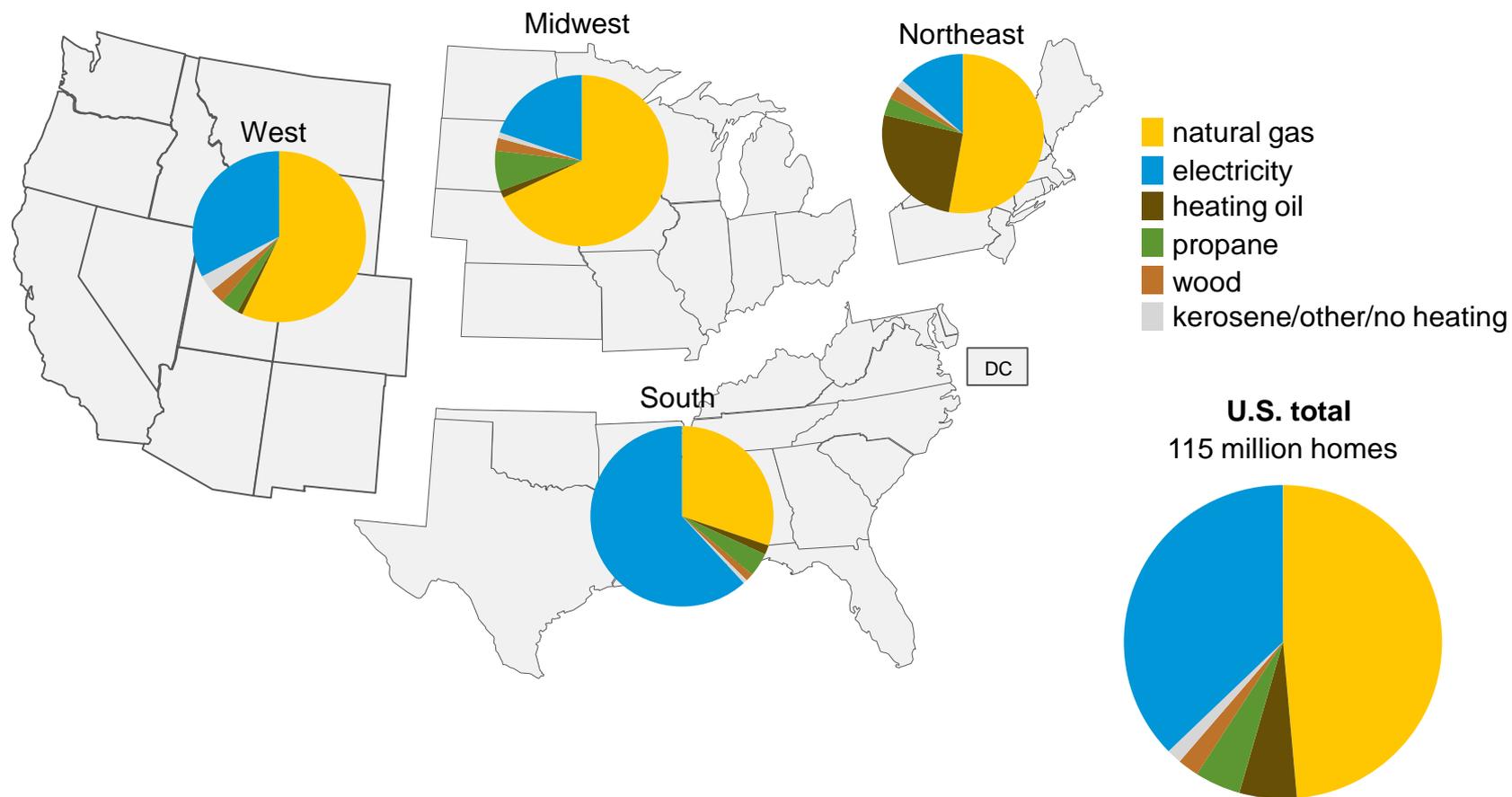
October 10, 2012 | Washington, DC

by

Adam Sieminski, Administrator

Heating fuel market shares vary regionally

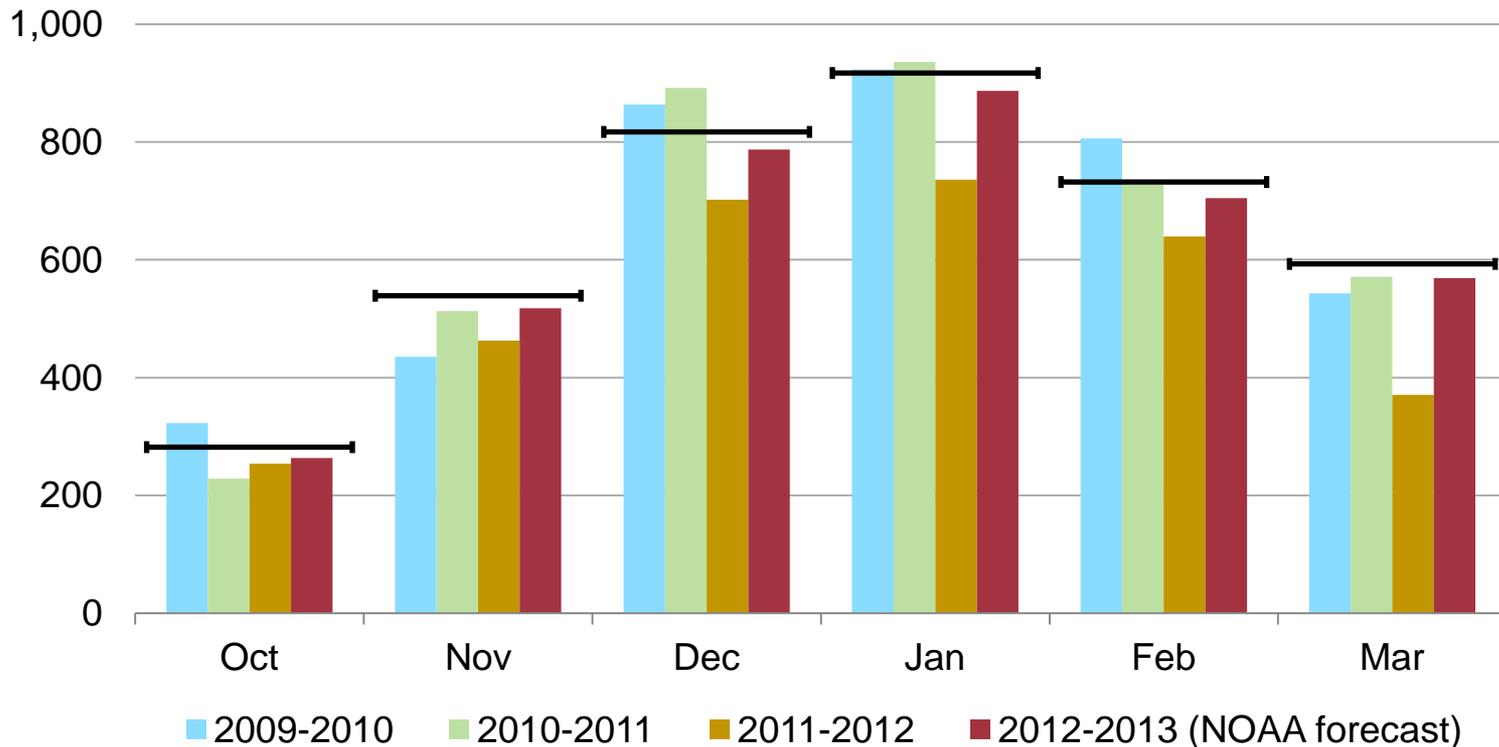
Number of homes by primary space heating fuel and Census Region, winter 2012-13



Source: EIA Short-Term Energy Outlook, October 2012

The U.S. winter 2012-13 heating season forecast is about 2% warmer than the 30-year average, but 18% colder than last winter

U.S. current population-weighted heating degree-days



Note: Horizontal bars indicate monthly average degree days over the period 1971-2000.

Source: EIA calculations based on NOAA state history and forecasts (August 15, 2012) weighted by same-year populations.

Expenditures are expected to increase this winter (October 1- March 31) for all fossil fuels

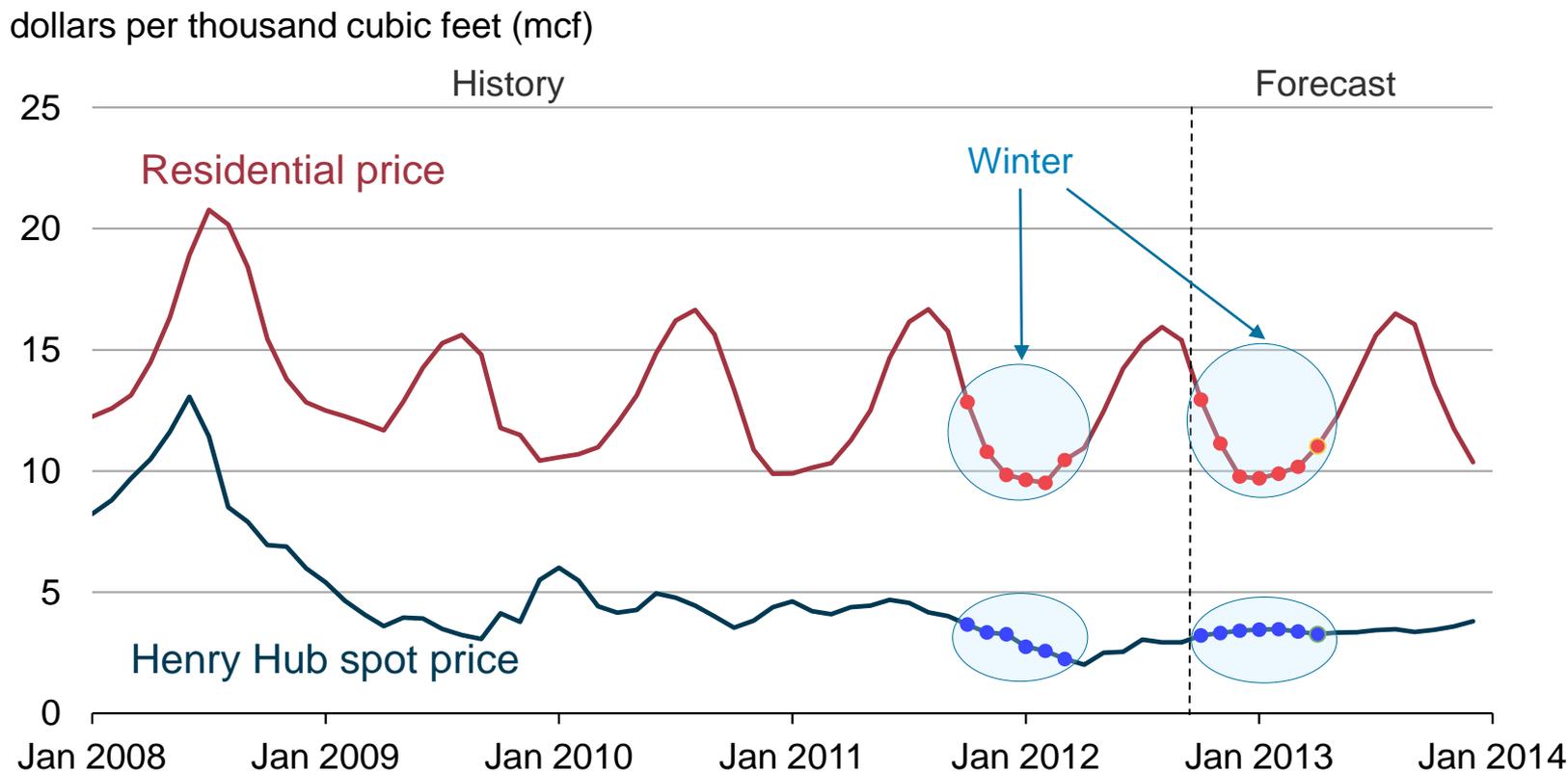
Percent change in fuel bills from last winter (forecast)

Fuel bill	Base case forecast	If 10% warmer than forecast	If 10% colder than forecast
Heating oil	19	7	32
Natural gas	15	3	28
Propane *	13	-	-
Electricity	5	2	11

* Propane expenditures are a volume-weighted average of the Northeast and Midwest regions. All others are U.S. volume-weighted averages. Propane prices in warm and cold cases are not available.

Source: EIA Short-Term Energy Outlook, October 2012

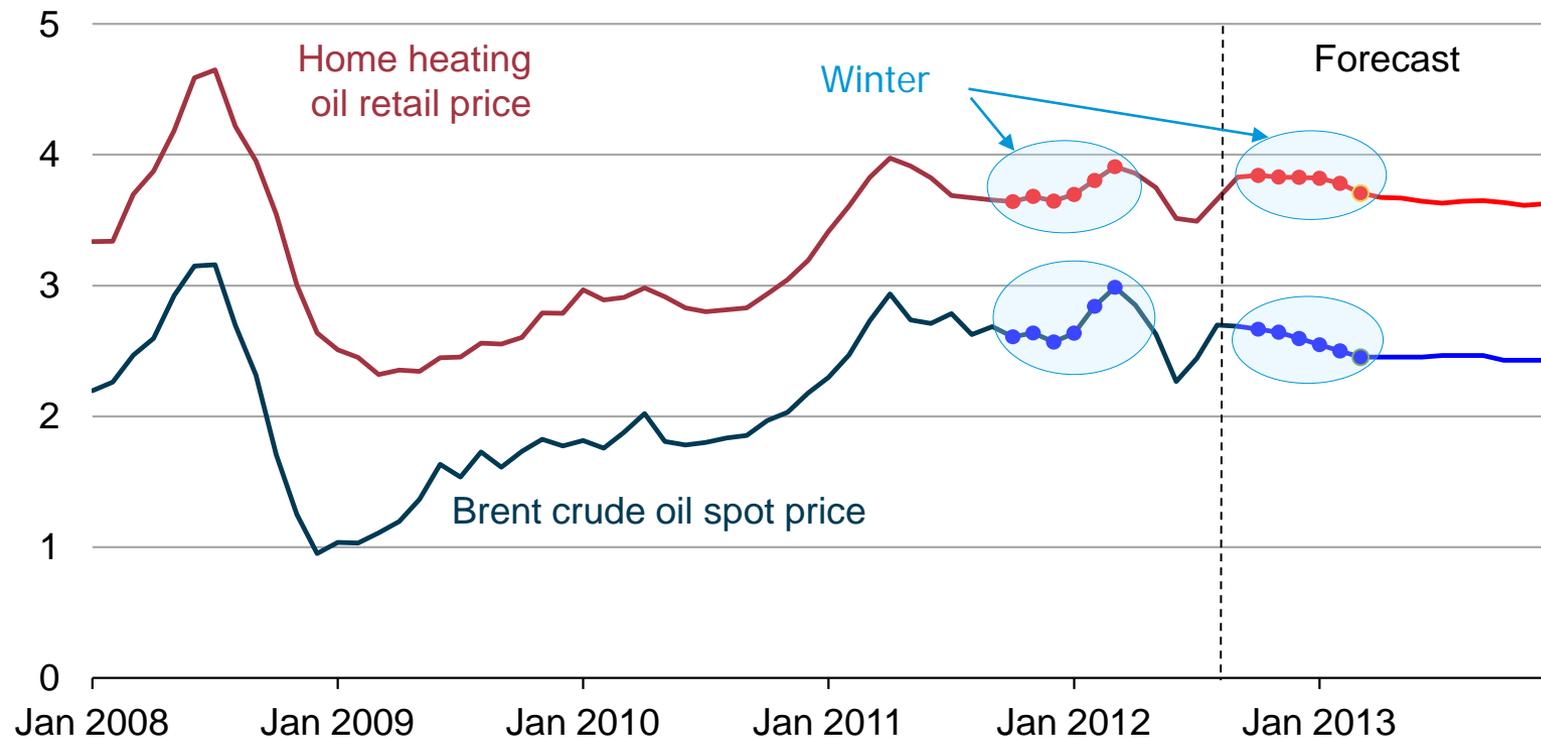
EIA expects residential natural gas prices to closely follow last winter's prices



Source: EIA Short-Term Energy Outlook, October 2012

EIA expects residential heating oil prices to average 2% higher this winter than last

dollars per gallon

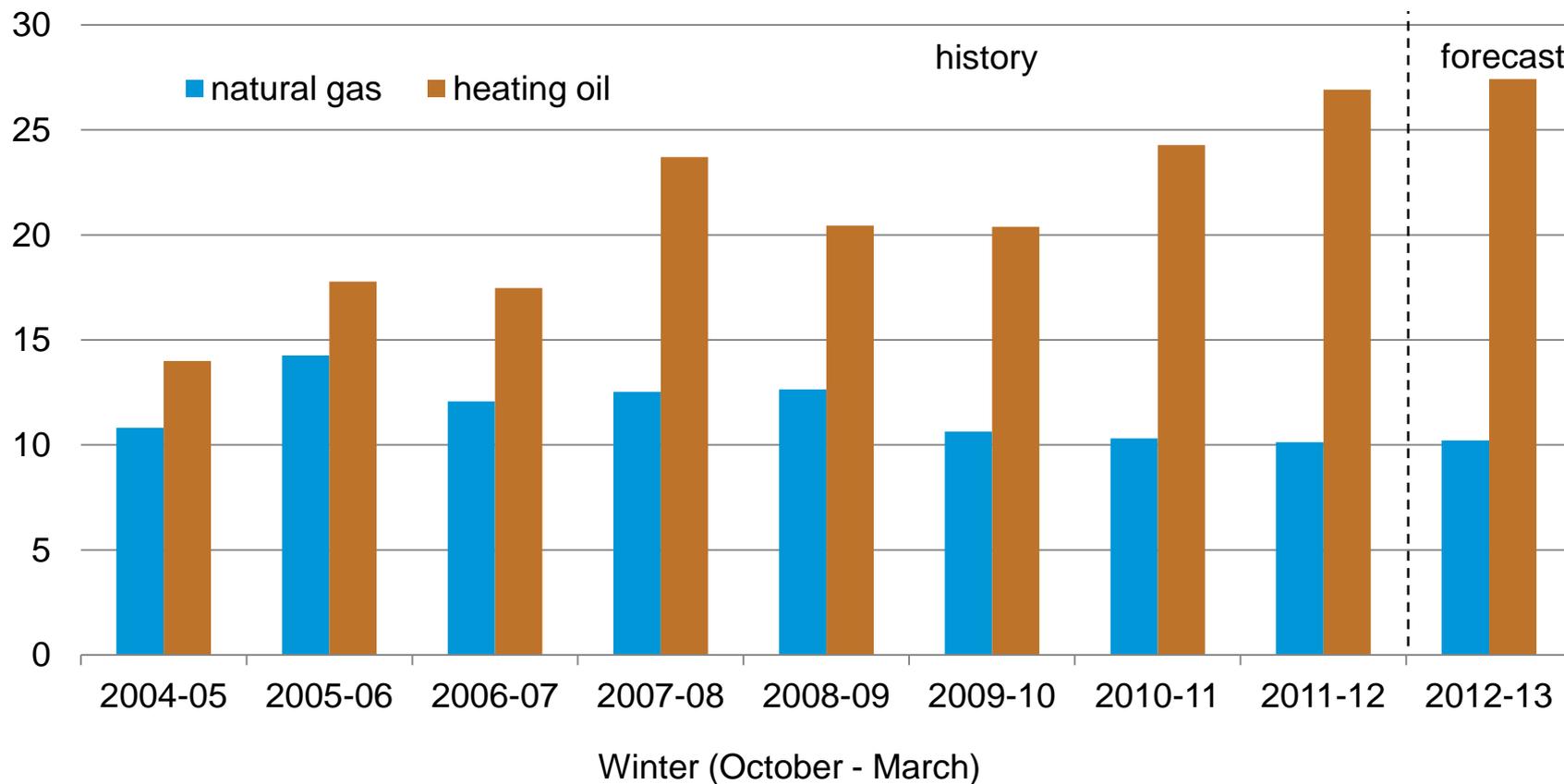


Home heating oil retail price includes taxes.

Source: EIA Short-Term Energy Outlook, October 2012

Heating oil remains much more expensive than natural gas

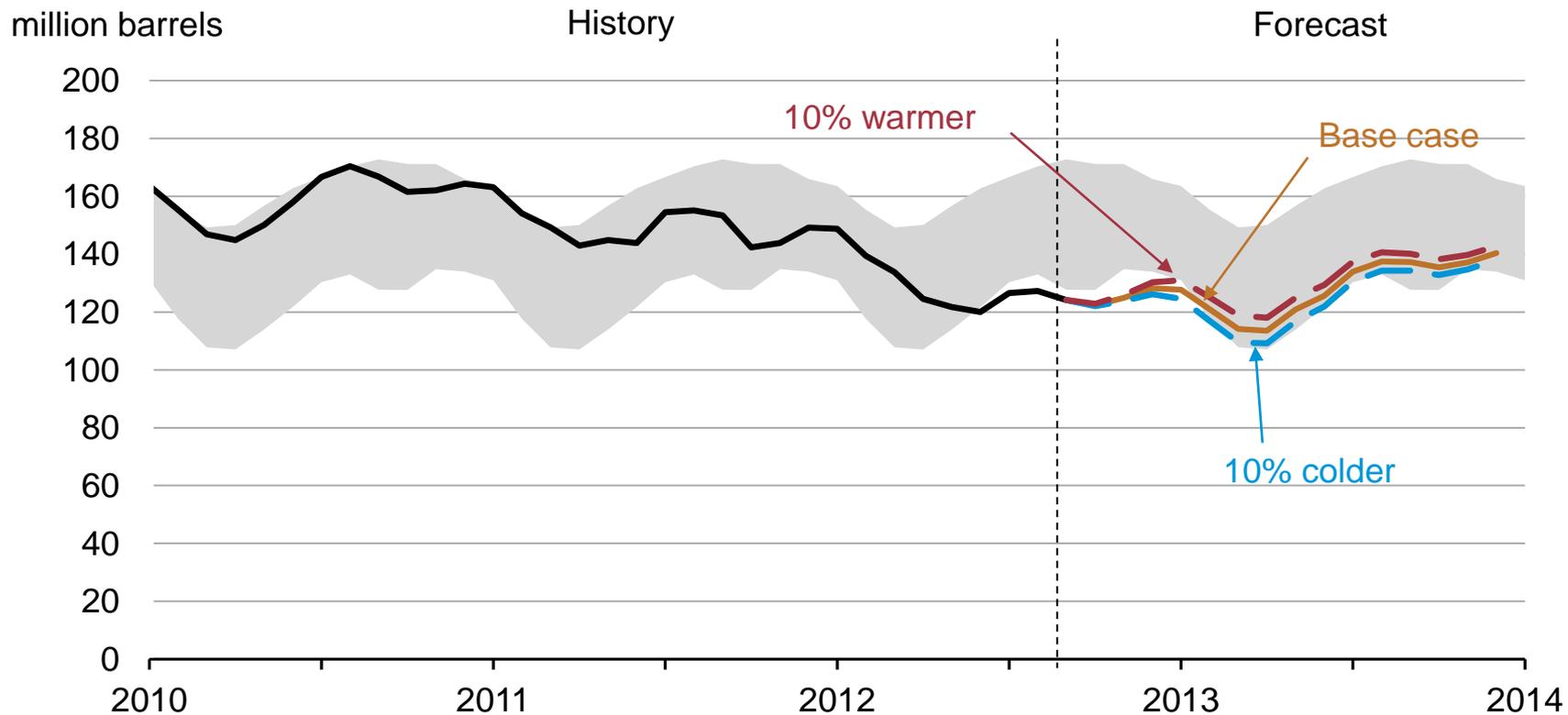
U.S. average residential winter heating fuel prices
dollars per million Btu



Source: EIA Short-Term Energy Outlook, October 2012

Recent changes in the heating oil market

U.S. distillate stocks are at the low end of the normal range

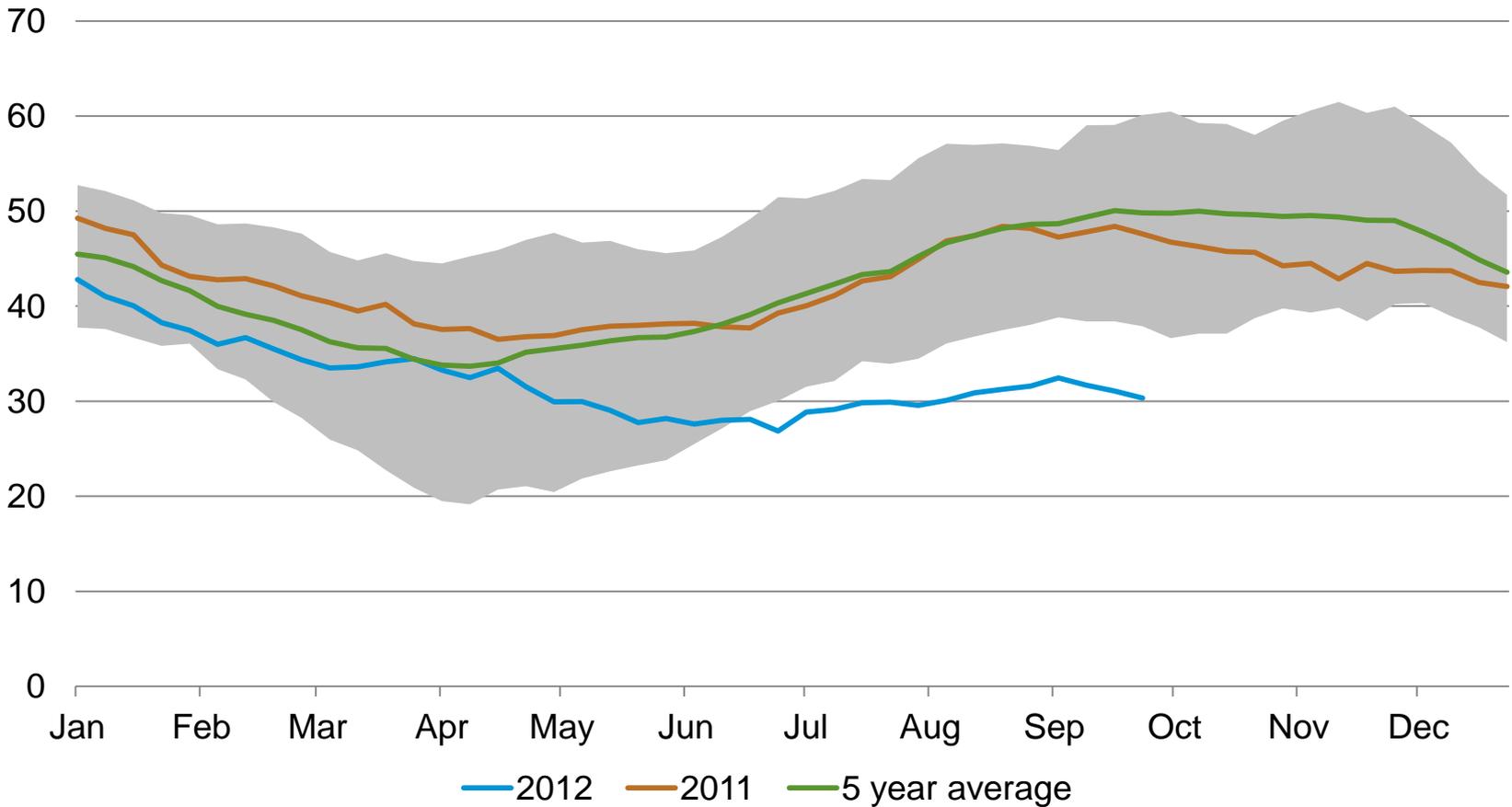


Note: Normal range (colored band) represents the range between the minimum to maximum from Jan. 2007 to Dec. 2011.

Source: EIA Short-Term Energy Outlook, October 2012

Distillate inventories in the Northeast have been below their normal range since mid-summer

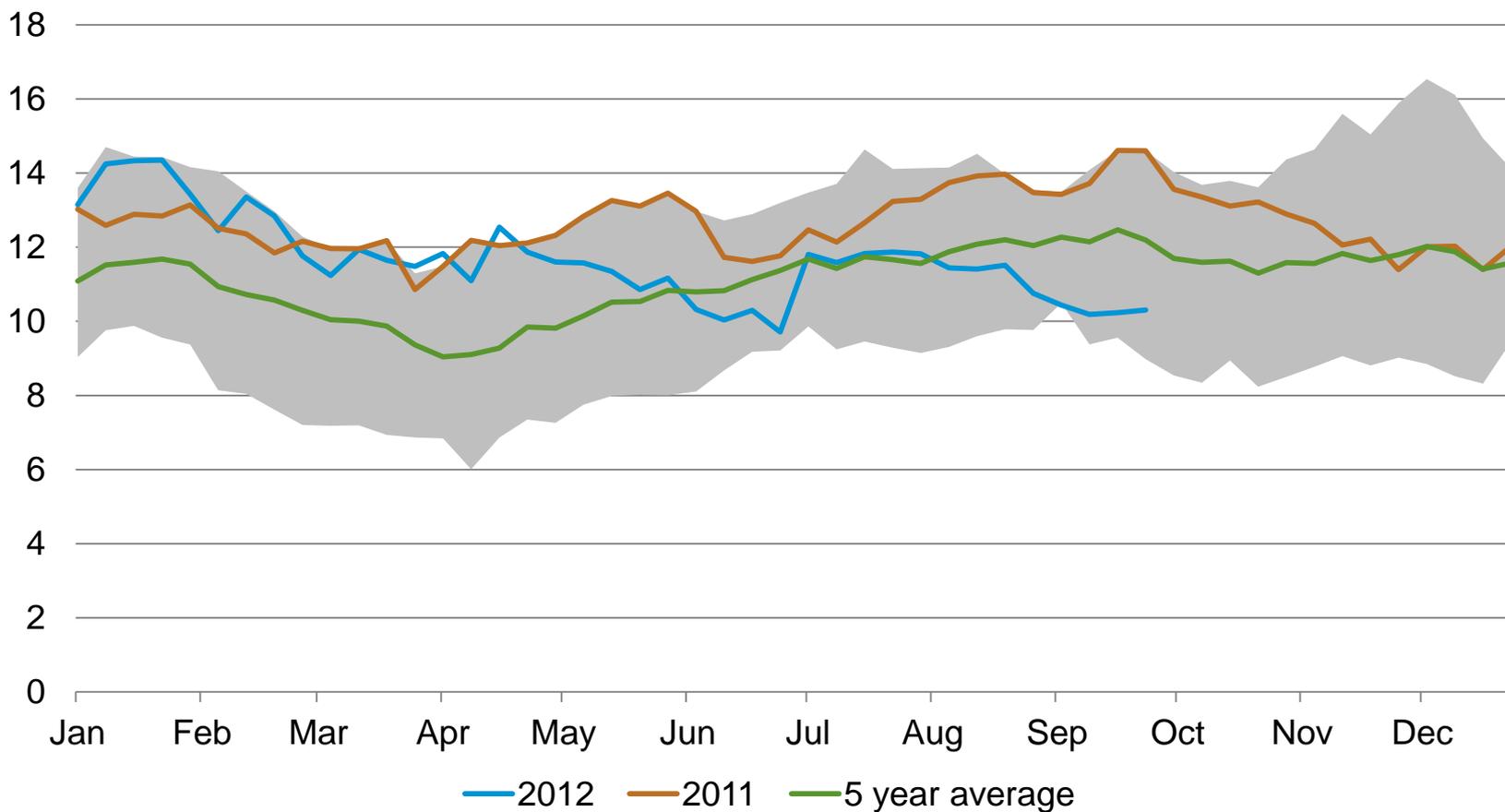
U.S. Northeast Total Distillate Inventories
million barrels



Source: EIA Weekly Petroleum Status Report

Ultra-low sulfur diesel (ULSD) stocks are also low

U.S. Northeast ULSD inventories
million barrels

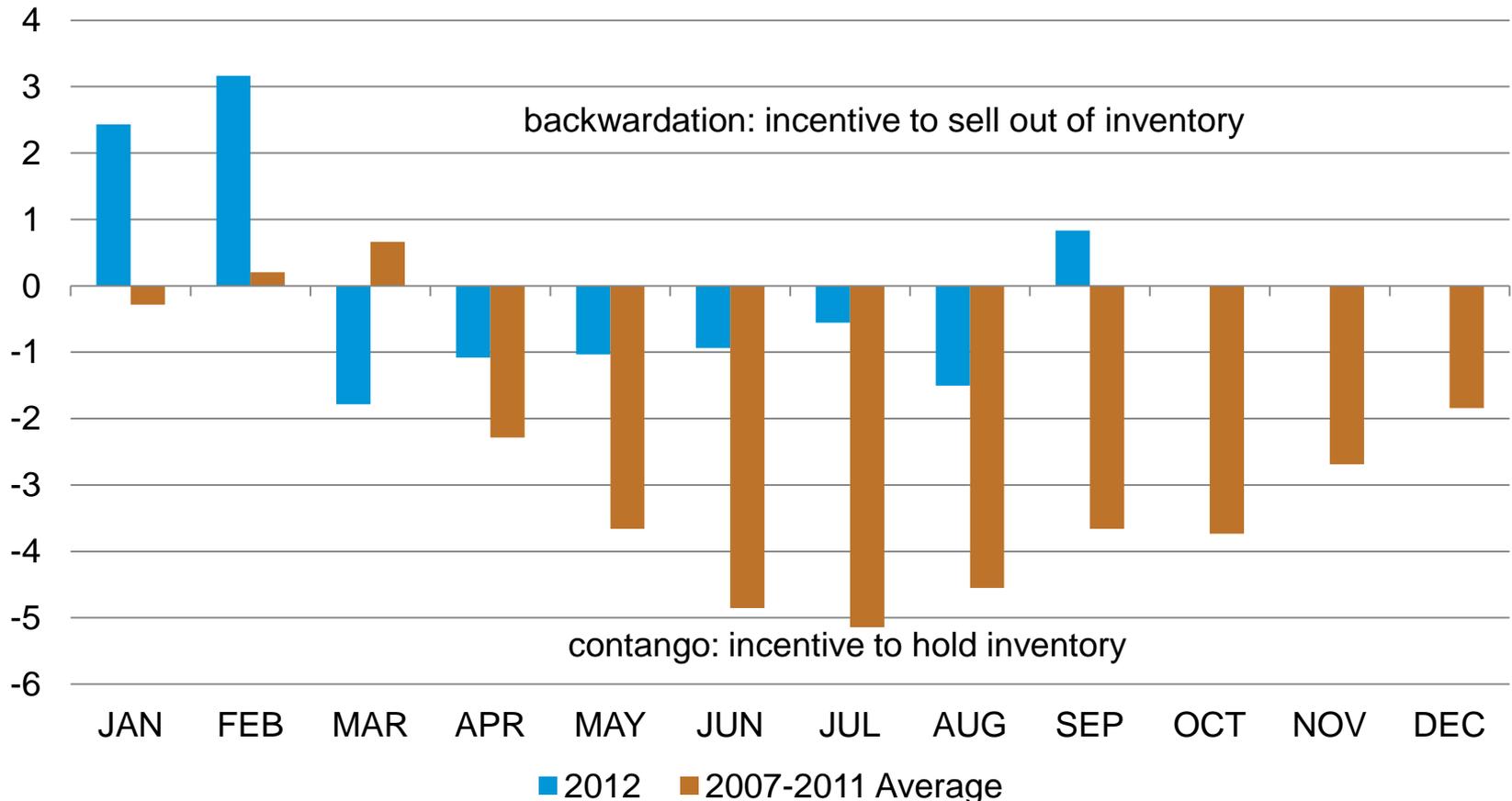


Source: EIA Weekly Petroleum Status Report

Futures market indicates a reduced incentive to hold inventories

Time spreads for NYMEX heating oil futures contracts

cents per gallon

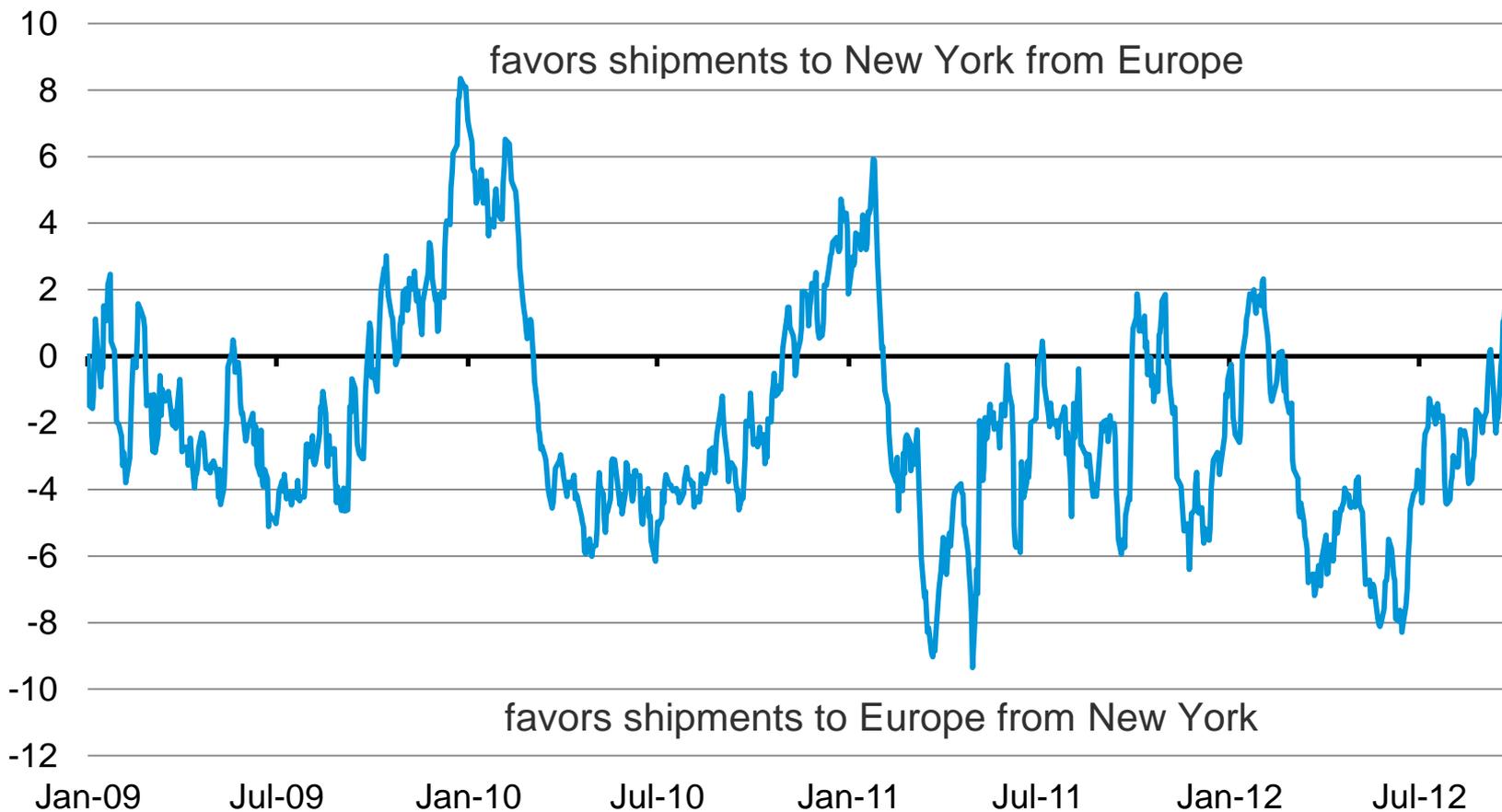


Note: Data are the average monthly first - third contract

Source: Bloomberg LP

Arbitrage between New York Harbor and Europe has closed

Transatlantic Distillate Arbitrage: New York Harbor - Northwest Europe
cents per gallon (five year average)



Source: Bloomberg LP

Other factors that could lessen tightness in Northeastern distillate markets headed into the winter

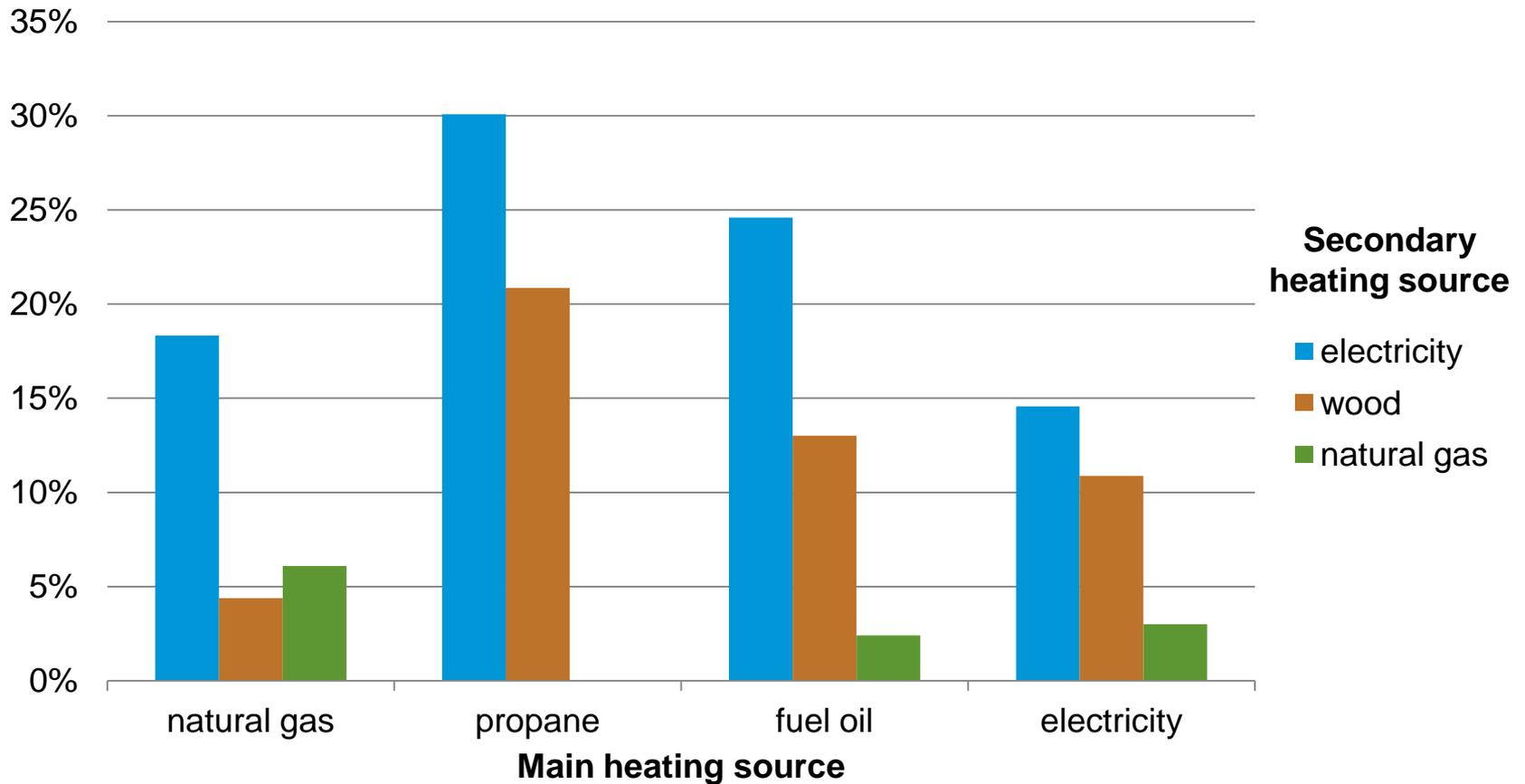
- Delta Air Line's 185k bbl/d Trainer Refinery near Philadelphia has restarted after being idle for the last year and represented 16% of East Coast refining capacity
- Colonial Pipeline's completion of a 55,000 bbl/d capacity expansion of a distillate pipeline from Houston, Texas and the 60,000 bbl/d expansion from a pipeline from Greensboro, North Carolina
- Additional production could come online from other Northeast refineries to take advantage of the strength in the distillate market

Changes in Northeast heating fuel consumption

- The Northeastern heating oil market is declining, though it remains the primary fuel in some areas
- Connecticut announced a plan to expand natural gas distribution networks
- Consumers are also supplementing liquid heating fuels with wood and electricity—wood pellet use has been growing in New England
- Production from shale gas in Pennsylvania has increased access to natural gas in Northeastern markets

Secondary heating is most prevalent for homes using heating oil or Propane/LPG as their main heating source

percent of households



Source: EIA Residential Energy Consumption Data, 2009

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Independent Statistics & Analysis

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Administration

EIA updates state-level datasets with mapping features and energy infrastructure datasets

Interactive map links to state level energy data

U.S. Overview

U.S. Territories: American Samoa | Guam | Northern Mariana Islands | Puerto Rico | U.S. Virgin Islands

State Total Energy Rankings, 2010

State	Production		Consumption per Capita		Expenditures per Capita	
	U.S. Share	Rank	Million Btu	Rank	Dollars	Rank
Alaska	2.3%	12	899	2	8,807	1
Alabama	1.8%	13	410	12	4,494	11
Arkansas	1.7%	14	385	17	4,128	21
Arizona	0.8%	27	218	45	3,021	50
California	2.4%	9	210	48	3,134	49
Colorado	3.4%	7	301	32	3,319	45
Connecticut	0.3%	40	211	47	3,877	25
District of Columbia	0.0%	51	307	29	4,033	23
Delaware	0.0%	49	205	34	4,019	24
Florida	0.7%	31	233	43	3,194	47

PENNSYLVANIA
State Profile and Energy Estimates

Profile Overview

Views: [Dropdown] Legend: [Icons]

Pennsylvania, U.S. Rankings

Consumption

- Total Energy per Capita: 33

Production

- Total Energy: 5
- Crude Oil: 19
- Natural Gas: 8
- Coal: 4
- Electricity: 2
- Carbon Dioxide Emissions: 3

Prices

- Natural Gas: 14
- Electricity: 16

QUICK FACTS

- Pennsylvania was the fourth largest coal-producing State in the Nation in 2011, and the only State producing anthracite coal, which has a higher heat value than other kinds of coal.
- Annual gross natural gas production more than doubled in Pennsylvania in 2011, exceeding 1

Source: EIA

States pages include EIA datasets and fuel and energy infrastructure analyses.

PENNSYLVANIA

State Profile and Energy Estimates

CHANGE STATE/TERRITORY ▾

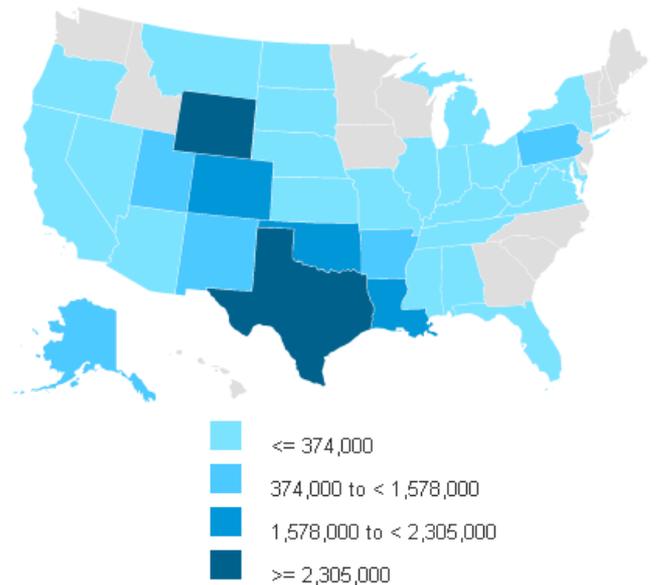
OVERVIEW DATA ▾ ANALYSIS ENERGY ESTIMATES (SEDS) ▾

RANKINGS COMPARE FIND ? HELP

Rankings: Natural Gas Marketed Production, 2010 (million cu ft)

[Download Table Data as CSV](#)

Rank	State	Natural Gas Marketed Production (million cu ft)
1	Texas	6,715,294
2	Wyoming	2,305,525
3	Louisiana	2,210,099
4	Oklahoma	1,827,328
5	Colorado	1,578,379
6	New Mexico	1,292,185
7	Arkansas	926,638
8	Pennsylvania	572,902
9	Utah	432,045
10	Alaska	374,226
11	Kansas	324,720
12	California	286,841



Additional State Rankings

Consumption

Production

Source: EIA

“Help” features include navigation tips, available tools, and an introductory video

Click here to change the State or Territory.

Concise summary of each State's energy picture including resources, consumption, production and product movements.

State rankings for consumption, prices, and production with supporting charts and maps.

Quickly find detailed State information from throughout the EIA website.

Interactive energy map, Quick Facts, charts, summary statistics, and more

Profile of important EIA data with links to underlying source data.

State estimates for total energy with breakdowns by sector and source.

Side-by-side State profile data with interactive charts.

HELP

Pensylvania, U.S. Rankings

Consumption	
Total Energy per Capita	33
Production	
Total Energy	5
Crude Oil	19
Natural Gas	8
Coal	4
Electricity	2
Carbon Dioxide Emissions	3
Prices	
Natural Gas	14
Electricity	16

See more rankings >

Related articles from Today in Energy

QUICK FACTS

- Pennsylvania was the fourth largest coal-producing State in the Nation in 2011, and the only State producing anthracite coal, which has a higher heat value than other kinds of coal.
- Annual gross natural gas production more than doubled in Pennsylvania in 2011, exceeding 1 trillion cubic feet, due to production from the Marcellus shale.
- The first commercial U.S. nuclear power plant came online in 1957 in Shippingport; in 2011.

Source: EIA

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

Monthly Energy Review | www.eia.gov/mer