



## Understanding Energy

Energy Pyramid Fact Sheet

Net Metering Fact Sheet

Off-Grid Living Fact Sheet

Green Building Fact Sheet

### Understanding Your Energy Consumption Fact Sheet

Sources and Uses Fact Sheet

Carbon and Energy Fact Sheet

Importance Scale Survey

For more energy information, go to <http://energy.tennessee.edu>.

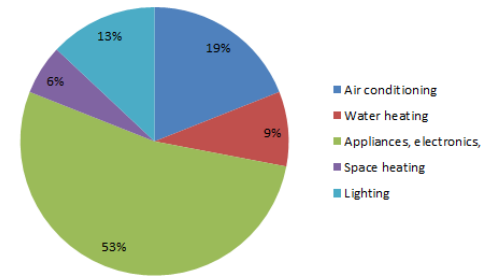
## Understanding Your Energy Consumption and Expenses

Understanding your current energy consumption and your current cost of energy is part of making an informed energy decision. This worksheet will help you explore the types of energy you currently use and the current price you pay.

### Electricity

Electricity in the home is primarily used to power lights and appliances (56 percent), condition air (22 percent), and heat water (9 percent). Roughly 39 percent of total United States electricity consumption in 2009 was residential. Demand for electricity has grown over the long-term; however, the growth has slowed progressively each decade since the 1950s. In the 1950s, demand increased by 9 percent per year, compared to the 1990's, when demand increased by 2.5 percent per year. From 2000 to 2009, increase in electricity demand averaged 0.5 percent per year. Demand growth is projected to be approximately 1 percent per year through 2035. (EIA DOE, 2011)

How Electricity is Used in U.S. Homes



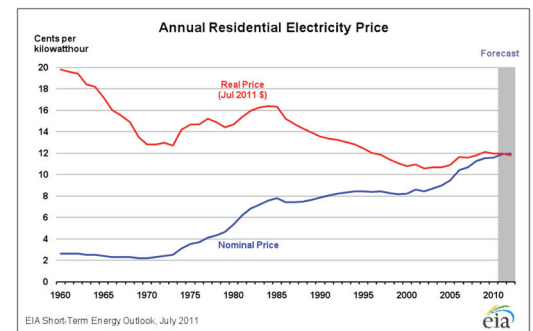
Source: U.S. Energy Information Administration. FAQs, Estimated U.S. residential electricity consumption by end-use, 2011. <http://www.eia.gov/tools/faqs/faq.cfm?id=96&t=3>

In agriculture, electricity is used for irrigation pumps, indoor and outdoor lighting, grain drying, powering farm shops, and livestock water systems. Average consumption in agriculture is difficult to determine because of the many and varied types of agricultural operations. If trying to determine total consumption and price of electricity, agricultural operators need to pay attention to whether demand charges have been assessed when reviewing statements.

Electricity Cost	United States	East South Central	Tennessee
Cost in Cents per kWh (September 2012)	12.33	10.44	10.03
Cost in Cents per kWh (September 2013)	12.52	10.57	9.89

Electricity Residential Consumption	United States	East South Central	Tennessee
2012 Average Monthly kWh	903	1185	1217
2012 Average Monthly Bill	\$107.28	\$122.25	\$122.98

The U.S. Department of Energy's Energy Information Administration 2011 Short Term Energy Outlook provides some historical context for understanding electricity prices by comparing the nominal to real prices over time. Nominal prices are the actual price paid in a given year. Nominal prices are adjusted to account for inflation to generate real prices (in current dollars). Real prices are generally a more useful way of evaluating prices.



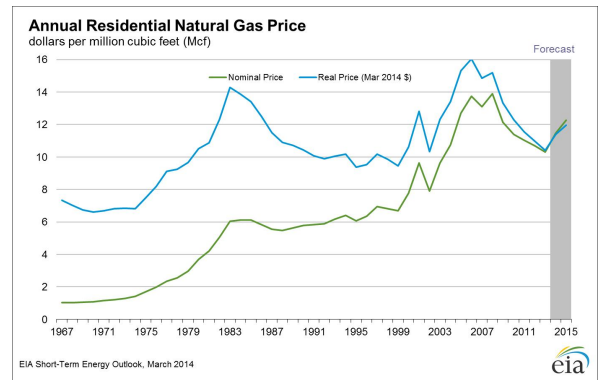
## My Electricity Data

Use the following table to record information about your electricity.

Electricity Data	
My electrical utility is ...	
My total kilowatt hours per year are ...	
My average kilowatt hours per month are ...	
My cost in cents per kWh is ...	

## Natural Gas

Natural gas is most commonly used for heating. More than half of single-family homes in the United States use natural gas as the primary heating source. Because natural gas is typically delivered through a pipeline, it is not commonly used in agricultural operations. The price of natural gas paid at the residential level will vary based on the supplier, type of contract, delivery costs and other factors. However, the EIA data shows that while the price of natural gas has declined in the past several years, the real price has trended upward over time.



## My Natural Gas Data

Use the following table to record information about your natural gas consumption.

Natural Gas Data	
My natural gas utility is ...	
My total consumption per year is ...	
My average consumption per month is ...	
My cost per unit is ...	

## Propane

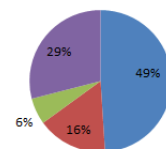
Propane is a liquified petroleum gas. It is found mixed with natural gas and oil and is separated in the refining process. In the home, it is used for space heating (49 percent), other uses such as clothes drying, gas grills, etc. (29 percent), water heating (16 percent) and cooking (6 percent). Agricultural operations may use propane. Some examples might include livestock barn heaters, grain bin drying, or water heating in dairy barns.

Because propane is linked to petroleum extraction and refining, propane pricing follows petroleum pricing. Like natural gas, the residential price will fluctuate due to delivery costs, storage, forward contracting and other factors. However, like other petroleum products, the price has escalated, especially in the past five to seven years.



## Residential Propane Consumption by End-Use, 2009

■ Space Heating ■ Water Heating ■ Cooking ■ Other Uses\*



\* Other uses include clothes drying, outdoor grills, mosquito traps, etc.

Source: U.S. Energy Information Administration, Annual Energy Outlook 2011, Table 4 (April 2011)

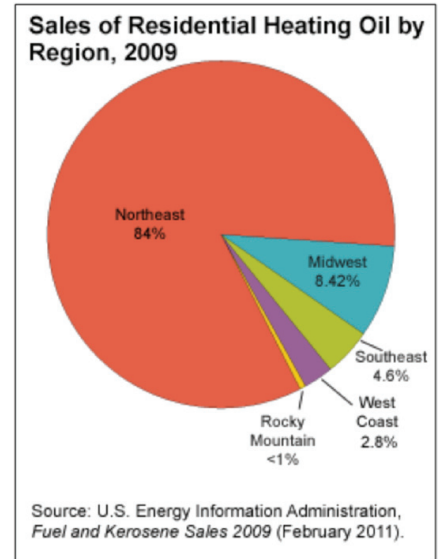
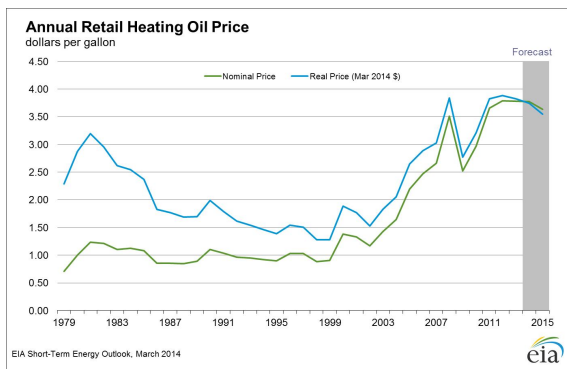
## My Propane Data

Use the following table to record information about your propane consumption.

Propane Data	
My propane supplier is ...	
My total consumption per year is ...	
My average consumption per month is ...	
My cost per unit is ...	

## Heating Oil

Another petroleum-based product used for heating is heating or fuel oil. Its use is less common in the East South Central region, but some homes do use heating oil. The Northeastern region uses most of the heating oil in the United States. Prices for heating oil trend with petroleum.



## My Heating Oil Data

Use the following table to record information about your heating oil consumption.

Heating Oil Data	
My heating oil supplier is ...	
My total consumption per year is ...	
My average consumption per month is ...	
My cost per unit is ...	

## Transportation Fuels

In the United States, petroleum is our number one source for transportation fuels. Personal vehicles account for most of that consumption. Prices for transportation fuels, both in real and nominal terms, have escalated significantly in recent years.

