

OCTOBER IS ENERGY AWARENESS MONTH

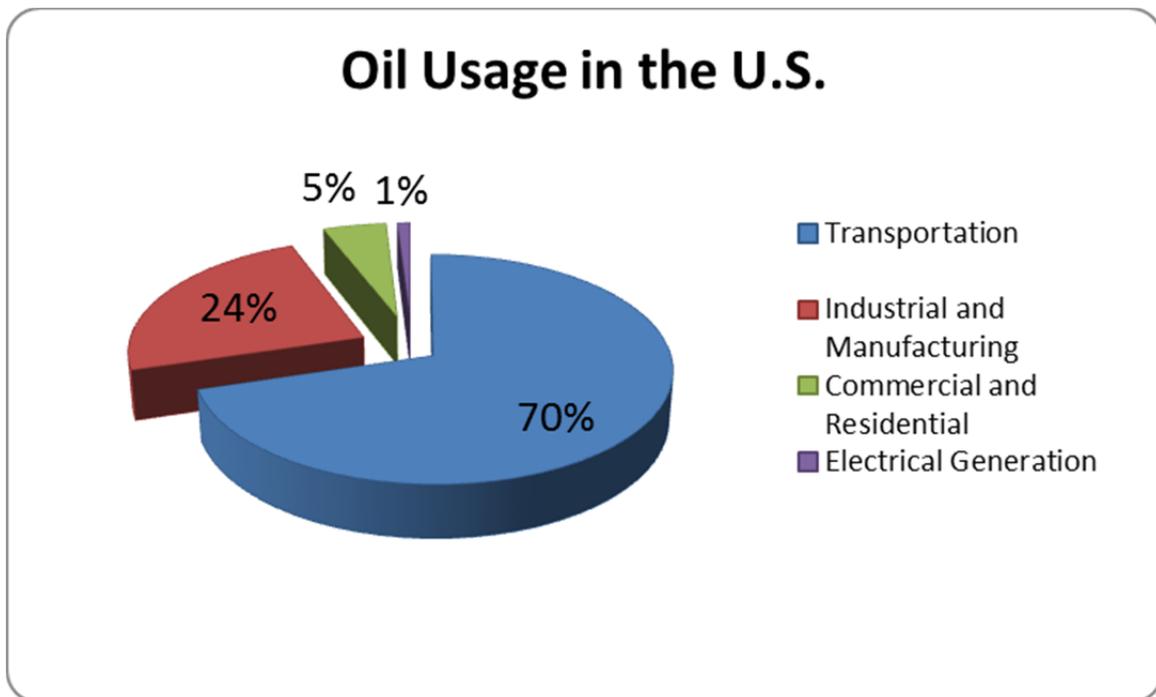
by

Edward L. O'Brien, III, MBA, M.Ec.

October is National Energy Awareness Month. Observed since 1991, President George H. W. Bush installed it to encourage governmental organizations to raise the visibility of the importance of conservation, sustainability, and awareness of the importance of managing the nation's energy resources in a responsible way. Promoted by the Department of Energy each year in October, National Energy Awareness Month is the public promotion of understanding of our energy needs and some simple ideas that everyone can use to reduce their energy footprint by reducing waste.

Looking at the United States, as a nation, we are less dependent on foreign oil than we have been since the 1970s. In 2016, the United States produced 14.6 million barrels per day of petroleum, and it consumed 19.6 million barrels a day of petroleum. Imported oil represents about 25% of all oil consumed in the United States¹, with Canada accounting for 38% of the imports; more than triple the 11%, imported from Saudi Arabia.² Breaking down the uses for oil, 71% is used for transportation, 24% is used for industrial and manufacturing purposes, 5% for commercial and residential use, and less than 1% is used for electrical generation³ (see Table 1).

Table 1: Usage of Oil



Source: <http://instituteforenergyresearch.org/topics/encyclopedia/petroleum/>

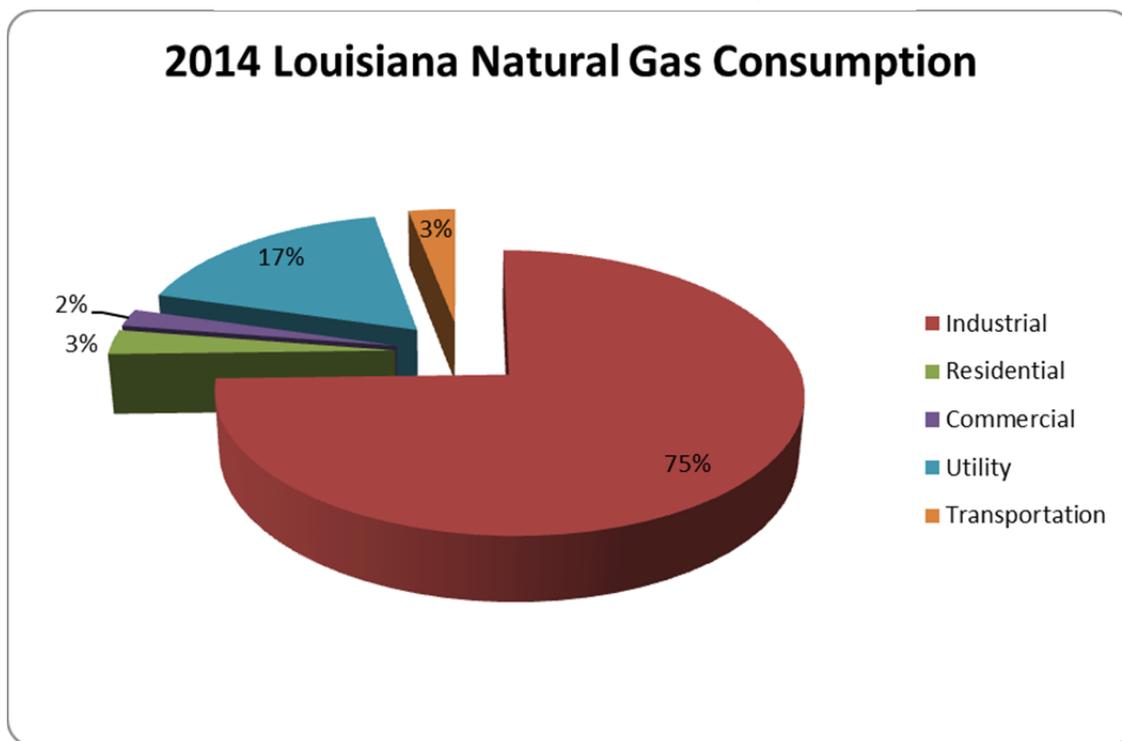
¹ https://www.eia.gov/energyexplained/index.cfm?page=oil_imports

² https://www.eia.gov/energyexplained/index.cfm?page=oil_imports

³ <http://instituteforenergyresearch.org/topics/encyclopedia/petroleum/>

In 2016, about 91% of all energy production was from domestic sources.⁴ This could not have been accomplished without the technological improvements within the oil and natural gas businesses, with one of the main improvements being the utilization of hydraulic fracturing, better known as fracking. A major portion of the natural gas produced and utilized in Louisiana was for industrial use, electrical generation, and in recent years, liquefied natural gas conversion. In fact, Louisiana is the fifth largest producer of natural gas in the United States at 1.94 trillion cubic feet (TCF) in 2014⁵, with much of that total coming from North Louisiana’s Haynesville Shale, and an additional 1.04 TCF coming from the Outer Continental Shelf. Louisiana consumed 1.52 TCF, so the state as a whole was a net exporter of natural gas. Consumption in Louisiana is dominated by industry with 75% of usage, followed by utilities (electrical generation) at 17%, and residential, transportation, and commercial coming in between 2% and 3% each (see Table 2).

Table 2: Louisiana Natural Gas Consumption



http://www.dnr.louisiana.gov/assets/TAD/newsletters/energy_facts_annual/LEF_2016.pdf

The worldwide adoption of energy efficient appliances and equipment would reduce global electricity consumption by more than 10 percent, save \$350 billion in electricity bills and reduce global carbon emissions by 1.25 billion tons per year.⁶ Energy Star is perhaps the most famous international standard to signify energy efficient products. Developed in the 1990s by the Environmental Protection Agency and the United States Department of Energy, it has been adopted in countries across Asia, Europe, North America, and Australia. Energy Star products tend to use 20% - 30% less energy than required by law.

In recent years, light-emitting diodes (LEDs) are another breakthrough toward lighting that is more efficient and consumes less energy. LED lighting typically lasts 25 times longer than traditional

⁴ https://www.eia.gov/energyexplained/?page=us_energy_home

⁵ http://www.dnr.louisiana.gov/assets/TAD/newsletters/energy_facts_annual/LEF_2016.pdf

⁶ <http://www.ase.org/blog/welcome-october-celebrating-national-energy-awareness-month>

incandescent bulbs and uses 75% less energy, while it has a higher up-front cost.⁷ In 2012, the normal cost of LED bulbs could be \$25 or more, a price that was off-putting for the average consumer. Now, however, with rebates and other incentives, it is not uncommon for the average price to be under \$2.50, or 1/10th the cost of just five years ago. Technology and improvements in manufacturing have made this lower price point possible. The LED bulb's additional price is made up in under a year in this scenario.

There has been much done in recent years to improve the efficiency of the products we use everyday. As technology improves, and the devices we use become more compact, the amount of electricity to run them has decreased. From light bulbs, which can be more than 75% more efficient than incandescent, to the transformation from the old vacuum tube televisions of yesteryear, to the LCD televisions of today, modern appliances, especially ones with the Energy Star label, use less energy than in the past. Not only can utilizing energy efficient devices save money, but it also helps to save our natural resources.

⁷ <https://energy.gov/energysaver/how-energy-efficient-light-bulbs-compare-traditional-incandescents>