

# Louisiana Energy Topics

Department of Natural Resources

Technology Assessment Division

A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

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## **LOUISIANA AN ENERGY CONSUMING STATE AN UPDATE USING 1997 DATA**

Louisiana's energy picture during the calendar year of 1997 showed a marked decrease in the production of oil from within the state's territorial boundaries. Oil production in the state has continued to decline since the 1980's. There was also a reduction in the use of petroleum for energy purposes; while overall energy consumption in Louisiana increased nearly two percent from 1996 to 1997.

Electrical energy use is a major portion of Louisiana's energy budget. A large portion of that energy is produced by base load nuclear and coal fired power plants. In calendar 1997 the Waterford nuclear plant took a planned 40 day outage in April to refuel. The River Bend nuclear plant also reduced its electrical production in the months of September and October.

Outages are not unusual, they were for the most part planned, and timed to avoid peak use months and times. The utilities in Louisiana did not import any net additional electricity. Ultimately this shifted a portion of electricity generation from nuclear to coal and natural gas over that period.

Electricity generated by nuclear power dropped 2,254 million kilowatt hours or 24.0 trillion BTU's (TBTU's). Natural Gas use for electrical generation increased 24.4 TBTU, which offsets that drop. Coal and lignite use increased 19.8 TBTU's, combined with small increases in heavy oil use and hydro power, offsetting the increased electrical energy consumed in the state, and avoided additional electricity imports.

Energy in the United States is the driving force of our industries. The industrial base dominates the energy use scene in Louisiana; over half of all energy consumed is used in the industrial sector. Even small percentage changes have major impacts in the overall Louisiana energy consumption figures. Industrial energy use increased 121.6 TBTU in 1997.

The industrial natural gas consumption increased most dramatically over 1996. This energy use was up 79.7 TBTU. Natural gas represents 65% of the total industrial energy use increase. These figures show a resurgence in natural gas consumption. During this period the spot market prices for gas were at relative highs while spot market oil prices were on a slow decline. This suggests a degree of inelasticity of natural gas demand. Even though the price of gas goes up, there is only a limited amount of fuel switching in industry in the state.

The same can be said for the transportation sector. Fuel oil use was down and natural gas use was up significantly.

From our analysis of the energy production and use in Louisiana, if you exclude the federal offshore oil and gas producing province from our totals, Louisiana remains as it has been the past many years an energy consuming state.

**LOUISIANA ENERGY PRODUCTION AND CONSUMPTION - 1997**

<u>ENERGY SOURCE</u>	<u>PRODUCTION</u>		<u>CONSUMPTION</u>	<u>NET STATE ENERGY</u>	
				<u>PRODUCTION BY SOURCE</u>	
				<u>Excluding OCS</u>	<u>Including OCS</u>
PETROLEUM	STATE OIL*	763.3 TBTU <sup>1</sup> (131.6 MMBBL)	1592.1 TBTU <sup>2</sup> (303.9 MMBBL)	-828.8 TBTU	1488.5 TBTU
	LA. OCS OIL*	2317.3 TBTU <sup>3</sup> (399.5 MMBBL)			
NATURAL GAS	STATE GAS **	1781.5 TBTU <sup>1</sup> (1.593 TCF)	1855.0 TBTU <sup>2</sup> (1.659 TCF)	-73.5 TBTU	4216.9 TBTU
	LA. OCS GAS **	4290.4 TBTU <sup>3</sup> (3.837 TCF)			
COAL	LIGNITE	51.0 TBTU <sup>2</sup> (3.495 MMSTON)	225.4 TBTU <sup>2</sup> (13,874 MSTON)	-174.4 TBTU	-174.4 TBTU
NUCLEAR ELECTRIC POWER		143.5 TBTU <sup>2</sup> (13.511 Billion KWH)	143.5 TBTU <sup>2</sup> (13.511 Billion KWH)	0.0 TBTU	0.0 TBTU
HYDROELECTRIC, BIOFUELS & OTHER		142.0 TBTU <sup>2</sup>	142.0 TBTU <sup>2</sup>	0.0 TBTU	0.0 TBTU
NET INTERSTATE PURCHASES OF ELECTRICITY INCLUDING ASSOCIATED LOSSES			135.0 TBTU <sup>2</sup> (39.572 Billion KWH)	-135.0 TBTU	-135.0 TBTU
<b>NET STATE ENERGY PRODUCTION ALL SOURCES</b>				<b>-1,211.7 TBTU</b>	<b>5,396.0 TBTU</b>

This balance indicated that in 1997, Louisiana was a net consumer of energy if OCS production were not credited to the state. Louisiana used 1,211.7 TBTU more energy than it produced. In 1997, the total Louisiana energy production was 9489.0 TBTU (2,881.4 TBTU if OCS is excluded), and consumption totaled 4,093.0 TBTU)

\* Includes Condensate

\*\* Includes Gas Plant Liquids

all units are in TBTU except where noted

DEFICIT(-)/SURPLUS(+)

TCF = Trillion Cubic Feet

OCS = Outer Continental Shelf

TBTU = Trillion BTU's

KWH = Kilowatt hour

MMBBL = Million Barrels

MMSTON = Million Short Tons

Data Sources: 1. Louisiana Department of Natural Resources  
2. U.S. Department of Energy, Energy Information Administration, December 1998  
3. U.S. Department of Interior, Minerals Management Services

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