# SELECTED LOUISIANA ENERGY STATISTICS

Among the 50 states, Louisiana's rankings (in 2014, unless otherwise indicated) were:

# PRIMARY ENERGY PRODUCTION

(Including GOM Central OCS region)

- $2^{nd}$  in crude oil
- 1<sup>st</sup> in OCS crude oil
- 1<sup>st</sup> in OCS natural gas
- $1^{st}$  in OCS revenue generated for federal government
- 1<sup>st</sup> in mineral revenues from any source to the federal government
- 1<sup>st</sup> in LNG terminal capacity
- 3<sup>rd</sup> in natural gas
- 3<sup>rd</sup> in crude oil proved reserves
- 5<sup>th</sup> in natural gas proved reserves
- 4<sup>th</sup> in total energy from all sources

# **REFINING AND PETROCHEMICALS**

- 2<sup>nd</sup> in primary petrochemical production
- 2<sup>nd</sup> in natural gas processing capacity
- $2^{nd}$  in petroleum refining capacity

# PRIMARY ENERGY PRODUCTION

## (Excluding GOM Central OCS region)

- 9<sup>th</sup> in crude oil
- 4<sup>th</sup> in natural gas
- 7<sup>th</sup> in natural gas proved reserves
- 10<sup>th</sup> in crude oil proved reserves
- 18<sup>th</sup> in coal
- 17<sup>th</sup> in nuclear electricity

### ENERGY CONSUMPTION (2013)

- 2<sup>nd</sup> in industrial energy
- $3^{rd}$  in per capita energy
- 3<sup>rd</sup> in natural gas
- 3<sup>rd</sup> in petroleum
- $6^{th}$  in total energy
- 27<sup>th</sup> in residential energy

### Figure 1



(Billion Cubic Feet)



# PRODUCTION

- State controlled natural gas and casinghead gas production peaked at 5.6 trillion cubic feet (TCF) per year in 1970 and declined to 1.28 TCF in 2005. The trend started to reverse in 2006 when production increased to 1.35 TCF. The rising trend continued until 2011 when it peaked at 2.98 TCF, the production surge was due to production in the Haynesville shale play. Prior to the Haynesville discovery, the long-term decline rate was around 3.2% per year. With the start of production in Haynesville in 2007, the state production has shown an increase of 0.3% in 2008 over the previous year, 12.4% in 2009, 42.3% in 2010, and 37.1% in 2011. In 2012, production fell to 2.96 TCF, in 2013 it fell to 2.32 TCF, and in 2014 it fell to 1.91 TCF, or a 17.6% drop from the previous year, and it is expected to continue to drop as prices continue to be below \$4.50 per MCF and high production from other gas shale with liquids contents and U.S. demand does not increase dramatically.
- State controlled crude oil and condensate production peaked at 566 million barrels (mmbls) per year in 1970, declined to 211 mmbls in 1980, declined to 148 mmbls in 1990, declined to 107 mmbls in 2000, and declined to 68 mmbls in 2010. Then in 2011, oil production reversed its trend; 2011 production was 69 mmbls, in 2012 it increased to 71 mmbls, in 2013 it increased to 72 mmbls, and in 2014 it decreased to 68 mmbls. The oil production decrease is caused by declining oil prices and lower drilling activities. If oil prices stay below \$65 per barrel, production will decrease from the present level, but if the Tuscaloosa Marine Shale or the Brown dense shale productions increase, state oil production might reverse the declining trend.



#### Figure 2

Gulf of Mexico (GOM) Central OCS region is the most extensively developed and mature OCS territory in the U.S. It has produced approximately 88% of the 20 billion barrels of crude oil and condensate and 79% of the 179 TCF of natural gas extracted from all federal OCS territories, from the beginning of time through the end of 2014.

- In 2014, GOM Central OCS region produced 14.8% and the state territory produced 2.2% of the U.S. oil domestic production. The GOM Central OCS region produced 4.2% and the state territory produced 7.0% of the natural gas produced in the U.S.
- GOM Central OCS region gas production first peaked at 4.10 TCF per year in 1981, then declined to 3.00 TCF in 1986, then started to recover as prices increased, reaching a second peak at 4.11 TCF in 2010 then slowly started to decline, caused first by the Moratorium and later by the decline in price and the increased gas shale production. In 2014, it produced 1.13 TCF.
- GOM Central OCS region crude oil and condensate production first peaked at 374 mmbls per year in 1972 and then declined to 249 mmbls in 1981. The production rose from 248 mmbls in 1990 to 524 mmbls in 2001, due to the development of deep water drilling. In 2008, production dropped to 396 mmbls due to weather, in 2009 production reached its second peak at 544 mmbls, in 2011 production began to slow down after the Macondo oil spill, but by 2014 production is on the upswing with discovery of deep oil reservoirs. It produced 467 mmbls in 2014.

# REVENUE

- In Fiscal Year (FY) 2007/08, oil and gas revenue (severance tax, royalties, and bonuses) reached an all time high of \$1.94 billion, or 16% of state income (total state taxes, licenses, and fees); the previous peak occurred in FY 1981/82 at \$1.62 billion, but it was 41% of state income. In FY 2011/12, it was \$1.40 billion or 14% of state income, in FY 2012/13, it was \$1.37 billion or 13% of the state income, in FY 2013/14, it was \$1.32 billion or 13% of state income and, in FY 2014/15, it was around \$1.01 billion.
- At constant production, the state treasury gains or loses about \$10 million of direct revenue from oil severance taxes and royalty payments for every \$1 per barrel change in oil prices.
- For every \$1 per MCF change in gas price, at constant production, the state treasury gains or loses around \$40 million in royalty payments. Increases or decreases in gas full rate severance tax by 1.0 cent per MCF would have caused an \$8 million dollar change in revenue in the past. Today, however, it is hard to estimate due to the advent of large production volumes from Haynesville shale, which are mostly exempted from severance taxes and fast diminishing production in other areas of the state.

There are no studies available on indirect revenue to the state from changes in gas and oil prices.

### DRILLING ACTIVITY

- Drilling permits issued on state controlled territory peaked at 7,631 permits in 1984 and declined to a low of 1,017 permits in 1999. Since 2000, the annual number of drilling permits issued has been on a roller coaster ride. In 2007, permits increased to 2,150, in 2008, they increased to 2,374 permits, in 2009, permits decreased to 1365, in 2010, they increased to 1,956 permits, in 2013, they decreased to 1,578 permits and, in 2014, they decreased to 1,408.
- Note: **GOM Central OCS** (Outer Continental Shelf) region is the federal offshore territory adjacent to Louisiana's coast beyond the three mile limit of the state's offshore boundary and includes Alabama federal offshore production.

- The average active rotary rig count for Louisiana, excluding OCS, reached a high of 386 active rigs in 1981 and fell to 76 active rigs in 2002. In 2008, there were an average of 117 active rigs, the count fell to 113 rigs in 2009, it increased to 166 active rigs in 2010 because of Haynesville run up, and in 2013, it decreased to 61 active rigs, due to competitions from shale gas formations with high liquids contents and low gas price, and in 2014 decreased to 60 rigs. The lowest year average between 1981 and 2010 was 64 active rigs in 1993.
- The annual average active rotary rig count for GOM Central OCS region reached a high of 109 rigs in 2001 and it is in a downward trend; it was 70 rigs in 2006, 50 rigs in 2008, and 26 rigs in 2010. After the moratorium, the trend reversed; in 2013, it increased to 47 rigs and, in 2014, it increased to 51 rigs. The lowest year average between 1981 and 2010 was 23 active rigs in 1992.



#### Figure 3

State total: 73 plants, 18,546.3 MMcfg

Data source: Oil & Gas Journal