

# LOUISIANA OIL AND GAS PRODUCTION FORECAST AND PROJECTED PRICES FOR THE NEXT FIVE YEARS

by  
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Louisiana ranks among the top four states in oil and gas production and is second in per capita energy consumption. It has produced oil and gas for almost a century. This forecast presents data for crude oil and natural gas production from state regulated land and water bottoms and projected prices for the next five years.

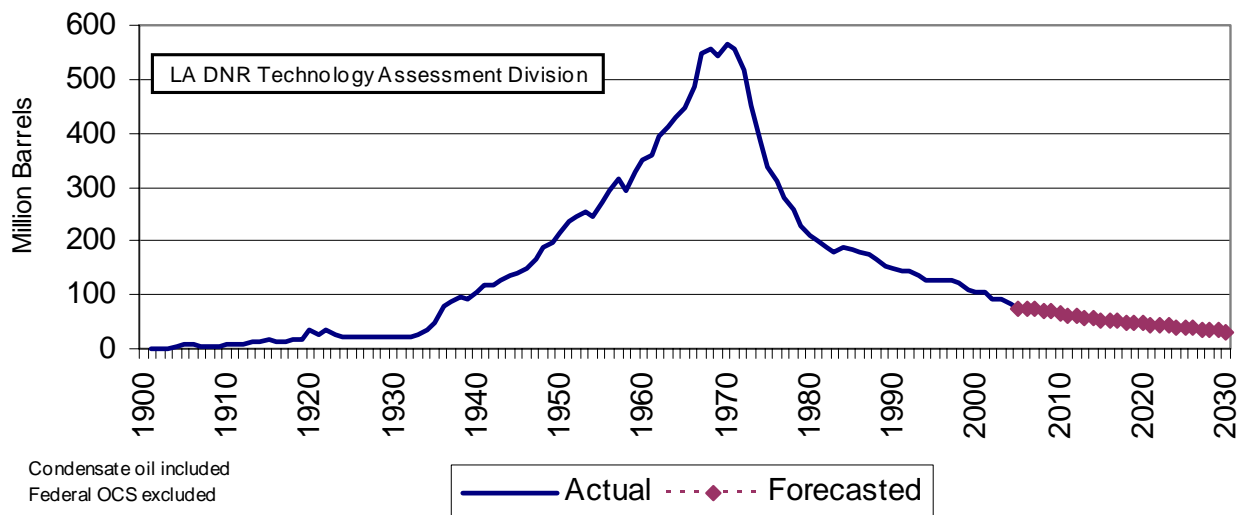
## Oil Production Forecast

The average annual rate of production decline over the past ten year period was 5.8%. The DNR Technology Assessment Division short term model is projecting an average of 3.0% decline per year for the next five years.

Factors contributing to the year-to-year deviations in oil production are:

- Changes in wildcat drilling and development of marginal fields within the state
- Early capping of stripper wells by major producers
- Unstable prices of crude oil
- Changes in environmental laws, especially those concerning salt water discharge
- World crude oil supply growing faster than demand, causing an oil glut similar to the gas bubble
- The number of active rigs in the region
- Military conflicts or political instability in some producing countries (OPEC members and the former the Soviet Union)
- Application of advanced technology such as 3-D and 4-D seismic
- State and local tax incentives

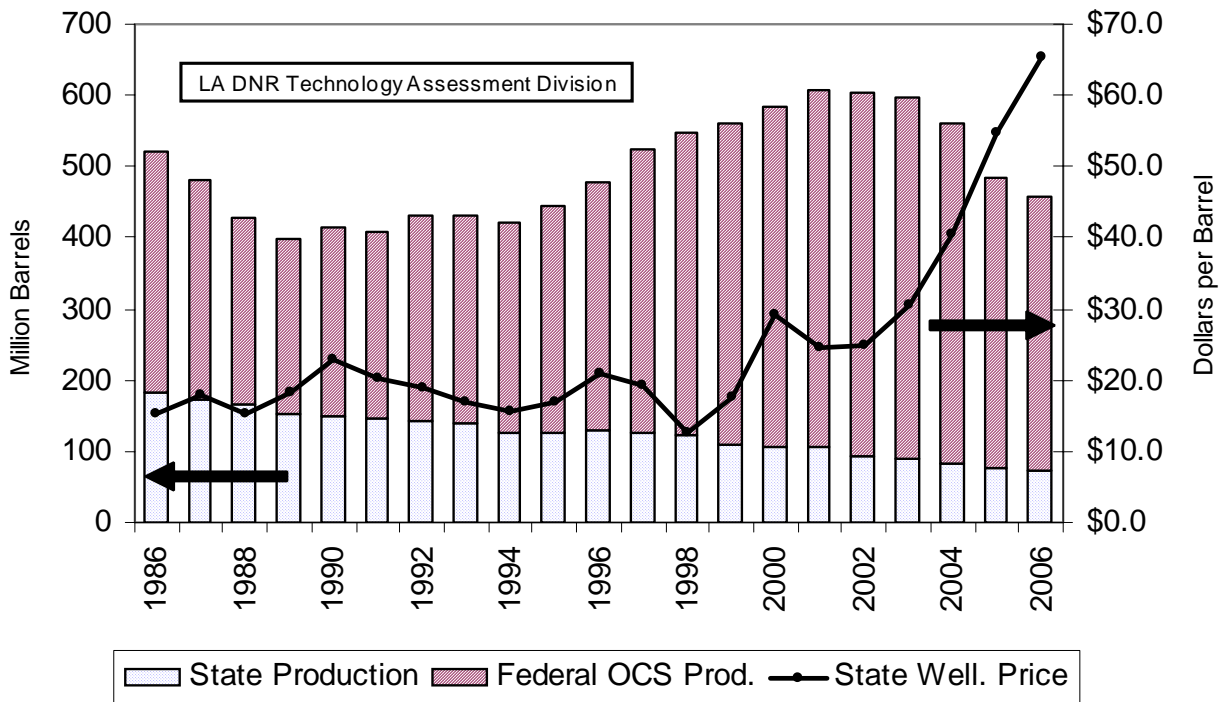
Figure 1. Louisiana State Oil Production  
Actual and Forecasted Through Year 2030



## Crude Oil Price Projection

Oil prices are determined in the international markets and are difficult to project. Major factors affecting oil prices are: a) political stability of producing countries, b) world environmental issues, c) industrialized countries conservation practices, d) weather related demand for petroleum products, e) production restraints by OPEC countries, f) economy changes in consumer nations, and g) stability in labor forces.

Figure 2. Louisiana Oil Production and Price



## Gas Production Forecast

The average annual rate of production decline over the last 10 years was 2.0%. The DNR Technology Assessment Division short term forecast model predicts a 2.8% per year decline for FY2007/08 through FY2011/12. Three years out of the last ten have shown production increases.

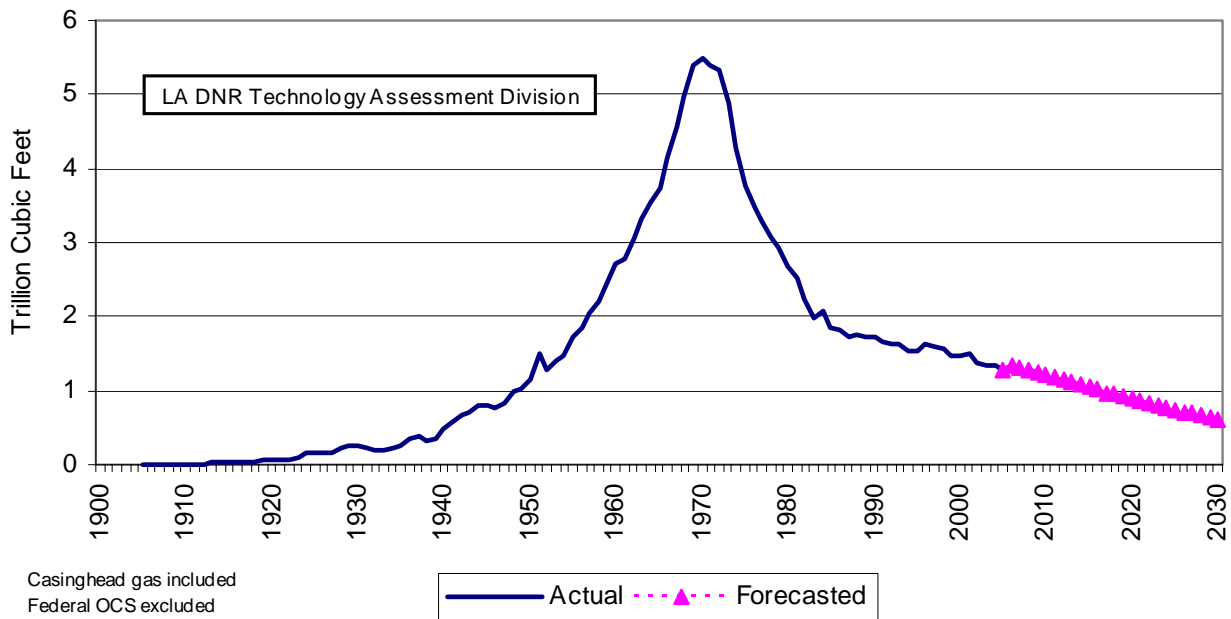
Factors contributing to the year-to-year deviations are:

- Effects on industrial gas demand from chemical industry activity
- Growth in use of natural gas to meet clean air requirements in electric power generation and transportation
- Mild or severe winter weather patterns
- Offshore drilling moratoriums in other states
- Changes in environmental laws, especially the Clean Air Act Amendments of 1990
- Production capacity higher than demand
- Price of gas relative to fuel oil and the amount of switching between these two fuels
- Peak day deliver ability of the U.S. pipeline system

- Foreign imports
- State and local tax incentives

The deep FY2005/06 decline was caused by hurricanes Katrina and Rita, and FY2006/07 forecast increases are attributed to the recovery from the disaster rather than the reverse in production trend. The demand for gas may increase as the manufacturing and utilities industries switch to gas for cleaner energy, and if natural gas prices remain competitive.

Figure 3. Louisiana State Gas Production  
Actual and Forecasted Through Year 2030



### Natural Gas Price Projection

Natural gas prices act differently than crude oil prices. Oil prices are driven by the international oil market, but natural gas prices are driven by factors such as weather, storage levels, curtailments, market changes, new consumption and NAFTA (North America Free Trade Agreement). Natural gas is harder to transport and store, and needs the proper infrastructure (pipelines, compression stations, LNG tanks, etc.). The major cost components of natural gas prices are: cost of infield production, cost of transportation, cost of marketing, and investment rate of return. As the historical data shows, marketing cost is the only cost that oscillates widely.

Gas prices increased as regulations phased out in the early 80's. With deregulation, natural gas started trading in the spot and commodity markets. Since 1985, this spot market for gas has grown in importance and, today, it is the major player in the determination of gas prices. In April 1990, natural gas futures contracts started trading in the New York Mercantile Exchange (NYMEX). A NYMEX gas future contract calls for delivery of 10,000 MCF of gas during a specific month, 1 to 12 months in the future. The contract delivery point of the gas is Sabine Pipe Line Company's Henry Hub terminal near Erath, Louisiana.

Gas prices are also affected by psychological factors and often the expectation of soft prices is enough to bring them about. Cold winter weather will usually erase much of the psychological element of low gas prices.

Figure 4. Louisiana Gas Production and Price

