Energy Resources in Oklahoma: The Policy Environment

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Excluding federal offshore areas, Oklahoma ranked fifth in crude oil production in the nation in 2013.

Oklahoma had five operating petroleum refineries with a combined daily capacity of over 500,000 barrels per day (3% of the total U.S. operating distillation capacity) as of January 2013.

Oklahoma is one of the top natural gas-producing states in the nation, accounting for 7.1% of U.S. gross production and 8.4% of marketed production in 2013.

Cushing, Oklahoma is where West Texas Intermediate crude oil futures prices are settled for the New York Mercantile Exchange (NYMEX).

In 2013, Oklahoma ranked fourth in net electricity generation from wind, which provided almost 15% of the state's net generation.

Peaks: Oil – 221.3 million in 1967  
Gas – 2.3 TCF in 1990

Sources: U.S. Energy Information Administration  
Oklahoma’s Energy Future
Some Basic Facts
- Alternative Energy Resources -
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Some Basic Facts

- Alternative Energy Resources -
The Discovery and Development of Oil and Gas

- Discovery of oil and gas in Kansas about 1882 sparked interest among the Five Civilized Tribes in Indian Territory
  - Formation oil and refining companies associated with some of the Civilized Tribes (Choctaw and Cherokee)

- Principal development of oil fields in Oklahoma began in 1904
  - Fields at Coody’s Bluff and Cleveland, Glenn Pool near Tulsa, and Osage Indian Territory

- By 1920, Oklahoma is the leading oil producer in the country
  - More than a billion barrels a year, while wasting most of the natural gas to get at the more valuable crude oil

- Overtaken by California in 1923, oil boom ends by 1930
General Background

The Policy Setting

• History of Oklahoma is marked by the boom and bust cycle of oil and gas
  • Key to state in terms of economic development and export commodities

• As a result of the Arab oil embargo of 1973, Oklahoma became a major benefactor
  • Oil and gas industry in the driver’s seat coupled with massive migration to the state’s oil patches, especially to the Anadarko Basin area

• As the Arab nations’ petroleum cartel came apart in 1982, Oklahoma suffered
  • Oil prices fell and gas production in the Anadarko Basin became unprofitable
  • Missed opportunity in the 1970s to diversify and modernize its economy
General Background

The Policy Setting

- The “bust” following the boom was the final blow to the “Era of Good Feeling”
  - Depressed petroleum industry coupled with a sagging agricultural, bank failures, and hundreds of bankruptcies

- By the end of the 1980s and since the 1990s
  - Significant efforts towards economic modernization and diversification
  - Known that extracting the vast remaining oil and gas will require economically attractive wellhead oil and natural gas prices as well as improved recovery techniques
General Background

Recent Federal and State Policies

• **Federal**
  - Energy Policy Act of 2005
    - First major overhaul of national energy policy since the Energy Policy Act of 1992

• **State**
  - Oklahoma Energy Security Act (the “OES Act”) - 2010
    - H.B. 3028 sets a goal that 15% of all installed electric generation capacity within the state be generated from renewable energy sources by 2015. Qualifying renewable energy resources include: wind, solar, photovoltaic, hydropower, hydrogen, geothermal and biomass (including crops, residues, animal waste, MSW and landfill gas).
Recent Federal and State Policies

State

- Wind Energy Development Act - 2010
  - HB 2973, codified as 17 Okla. Stat. 160.11 et seq., specifies that, rather than utilizing a system of Renewable Energy Credits to track compliance with the state renewable energy standards, each utility in Oklahoma must file a report with the state by March 1. Report documents the total installed capacity and the energy source for each generation facilities, as well as the number of kilowatt-hours (kWh) generated by those facilities during the prior year.

- No Severance of Wind and Solar Rights - 2010
  - SB 1787, codified as 60 Okla. Stat. 820.1 et seq., states that access to the airspace is tied to the ownership of the land. Thus, any wind or solar leasing arrangements associated with the airspace must be made with the landowner that owns the land below the air.
Policy Change

Problem Stream
- Declining Production
- Climate Change
- International Competition

Policy Stream
- Improved Technology
- Lower Costs

Politics Stream
- Policymakers and Industry
- Mix of Energy Resources

Window of Opportunity
- Efficient Sites
- Economic Development

Policy Change
Sources


- Sunlight Foundation. Open States (http://openstates.org/).
Appendix

Shale Gas Formations
Crude Oil Production in 2006
Oklahoma Crude Oil Production
(Including Condensate)

Data From OK Corp Comm, 2007

Source: Oklahoma Geological Survey
Annual Oklahoma Natural Gas Marketed Production

Source: U.S. Energy Information Administration