Outlook for U.S. oil and gas

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By
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The U.S. has experienced a rapid increase in natural gas and oil production from shale and other tight resources.

Sources: EIA derived from state administrative data collected by DrillingInfo Inc. Data are through March 2014 and represent EIA’s official tight oil & shale gas estimates, but are not survey data. State abbreviations indicate primary state(s).
U.S. natural gas production is nearly double current level in High Oil and Gas Resource case

U.S. dry natural gas production
trillion cubic feet

Source: EIA, Annual Energy Outlook 2014 Reference case, High Oil and Gas Resource case, and Low Oil and Gas Resource case
U.S. natural gas consumption growth is driven by electric power, industrial, and transportation use

U.S. dry gas consumption
trillion cubic feet

Year: 2005 2012 2020 2025 2030 2035 2040
Electric power 8.5 9.1 11.0
Industrial* 0.7 2.9 3.6
Transportation** 4.2 2.9 1.7
Commercial 4.2 2.9 1.7
Residential 4.2 2.9 1.7

Source: EIA, Annual Energy Outlook 2014 Reference case

*Includes combined heat-and-power and lease and plant fuel
**Includes pipeline fuel
U.S. manufacturing output and natural gas use grows with low natural gas prices, particularly in the near term

manufacturing natural gas consumption

quadrillion Btu

Source: EIA, Annual Energy Outlook 2014 Reference case
U.S. becomes a net exporter of natural gas in the near future

Source: EIA, Annual Energy Outlook 2014 Reference case
U.S. crude oil production exceeds 13 million bbl/d in High Oil and Gas Resource case

U.S. crude oil production in three cases

million barrels per day

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U.S. maximum production level of 9.6 million barrels per day in 1970

Source: EIA, Annual Energy Outlook 2014 Reference case, High Oil and Gas Resource case, and Low Oil and Gas Resource case
U.S. transportation sector motor gasoline demand declines, while diesel fuel accounts for a growing portion of the market

transportation energy consumption by fuel quadrillion Btu

History

2012

Projections

2030

2040

Motor gasoline

47%

44%

Ethanol

5%

5%

Diesel

30%

31%

CNG/LNG

1%

3%

Jet fuel

13%

13%

Other*

3%

3%

Source: EIA, Annual Energy Outlook 2014 Reference case

*Includes aviation gasoline, propane, residual fuel oil, lubricants, electricity, and liquid hydrogen

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Although oil use is slightly increased in the High Resource case due to lower prices, net import dependence declines rapidly.

U.S. liquid fuel supply
million barrels per day

Source: EIA, Annual Energy Outlook 2014 Reference case and High Resource / Improved Technology case
The rise in U.S. crude oil and natural gas production has strategic implications for the United States

- Refinery operations/investment
- Logistics infrastructure investment
- Exports of petroleum products
- Exports of crude oil and natural gas (LNG)
- Operation of the Strategic Petroleum Reserve
The value of crude and petroleum products imports into the U.S. declined 11% from 2012 to 2013

Monthly import values by major product category
billion dollars

Note: Imports are expressed as negative values
Source: U.S. Census Bureau- Foreign Trade Division
The value of U.S. crude and petroleum products exports has seen a dramatic rise since 2009.

Monthly export values by major product category
billion dollars

Source: U.S. Census Bureau- Foreign Trade Division
For more information


Annual Energy Outlook | www.eia.gov/aeo

Short-Term Energy Outlook | www.eia.gov/steo

International Energy Outlook | www.eia.gov/ieo

Monthly Energy Review | www.eia.gov/mer

Today in Energy | www.eia.gov/todayinenergy

State Energy Portal | www.eia.gov/state

Drilling Productivity Report | www.eia.gov/petroleum/drilling/