

U.S. Oil-Production Rise Is Fastest Ever

January 18, 2013, 8:07 p.m. ET

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U.S. oil production grew more in 2012 than in any year in the history of the domestic industry, which began in 1859, and is set to surge even more in 2013.

Daily crude output averaged 6.4 million barrels a day last year, up a record 779,000 barrels a day from 2011 and hitting a 15-year high, according to the American Petroleum Institute, a trade group.

It is the biggest annual jump in production since Edwin Drake drilled the first commercial oil well in Titusville, Pa., two years before the Civil War began.

The U.S. Energy Information Administration predicts 2013 will be an even bigger year, with average daily production expected to jump by 900,000 barrels a day.

The surge comes thanks to a relatively recent combination of technologies—horizontal drilling and hydraulic fracturing, or fracking, which involves pumping water, chemicals and sand at high pressures to break apart underground rock formations.

Together, they have unlocked deposits of oil and gas trapped in formations previously thought to be unreachable.



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The 2012 rise in crude output was the largest since U.S. oil production began in 1859 at a well owned by Edwin Drake (right) in Titusville, Pa.

That has meant a resurgence of activity in well-established oil regions, such as West Texas's Permian basin, as well as huge expansions in areas that had been lightly tapped in the past, such as North Dakota's Bakken shale region.

The Bakken has gone from producing just 125,000 barrels of oil a day five years ago to nearly 750,000 barrels a day today.

The benefits of the surge in domestic energy production include improving employment in some regions and a rebound in U.S.-based manufacturing.

"At a very basic level this surge is creating jobs and wealth that didn't exist before," said Michael Levi, a senior fellow for energy and the environment at the Council on Foreign Relations.

It has also provided the country with greater defense against overseas turmoil that can disrupt energy supplies.

"The events in Algeria this week, for example, show the importance of having rising production from within the U.S. and other countries," said Amy Myers Jaffe, the executive director of energy and sustainability at the University of California Davis.

The shale drilling boom was first directed at natural gas production, but when a glut of natural gas drove down prices for the fuel, exploration companies redirected their efforts toward oil.

Amid a sluggish economic recovery and tightening fuel-economy standards for U.S. cars and trucks, oil demand fell to a 16-year low in 2012, according to the trade group. Total oil imports for the year fell by 6.9%, to a 15-year low, API said.

Refiners that spent billions of dollars upgrading and expanding facilities last decade now find themselves with excess capacity, leading them to target consumers in South America and elsewhere for their surplus diesel and gasoline production.

[Exxon Mobil](#) Corp. XOM -0.47% predicts in its annual energy outlook that North America will become a net exporter of all energy by 2025, through continued growth of crude from Canada's oil-sands region as well as growing exports of gasoline and diesel.

Continuation of the production trend isn't a given, experts say, noting that the industry must continue to improve on its exploration-and-production technology, particularly as it continues to move into areas that are more heavily populated, or else it could face greater regulatory resistance. Environmental concerns remain a significant issue as the technology expands.

U.S. crude production won't necessarily mean significantly lower gasoline prices, which will still be influenced by global markets.

But the domestic-production surge is already having a dramatic impact on the refining business, which in the past had been focused on handling hard-to-refine crude imported from overseas.

Earlier this month, San Antonio-based refiner [Valero Energy](#) Corp. VLO +0.27% said it will add new equipment to a Houston-area plant to handle a very easy-to-refine type of oil from South Texas' Eagle Ford shale oil fields.

"No one has installed that equipment on a U.S. refinery in years," said Philip Verleger, an energy economist.