

# Report: Gas reserves surge

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By MARK WILLIAMS  
AP energy writer  
with staff reports

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COLUMBUS, Ohio -- The country's natural gas reserves are much bigger than previously thought, according to a report released Thursday.

Thanks to new technology that has allowed producers to drill for gas in some of Wyoming's biggest fields, the Potential Gas Committee in Golden, Colo., said the country's estimated reserves are 35 percent higher than just two years ago and have reached the highest level since the group started tracking the information 44 years ago.

The report comes as natural gas is being touted as a way to help reduce U.S. dependence on foreign oil and cut emissions that lead to global warming.

"We knew it was there. It was a matter of how productive it possibly could be," said John Curtis, professor of geology and geological engineering at the Colorado School of Mines and the committee director.

The committee, a volunteer group backed by natural gas producers and utilities, estimated the country's total natural gas resources at 2,074 trillion cubic feet, an increase of 542 trillion cubic feet from its last report.

The figure includes 238 trillion cubic feet of proven gas reserves as established by the Department of Energy and 1,836 trillion cubic feet of reserves it labeled as probable, possible, and speculative.

Curtis cautioned that the group's current assessment assumes neither a time schedule nor a specific market price for the discovery and production of future gas supply.

The report is similar to a study prepared last summer for the natural gas-backed American Clean Skies Foundation that found the country had 2,247 trillion cubic feet of natural gas reserves -- a 118-year supply at 2007 production levels. The U.S. consumes about 22 trillion cubic feet of gas per year, almost all of it produced in the U.S.

Directional drilling and hydraulic fracturing technologies in recent years have allowed producers to tap the Jonah Field, Pinedale Anticline and several other large natural gas fields in Wyoming. The new study says the same technologies can unlock natural gas in shale rock at sites around the country.

The technologies have already increased proven natural gas reserves in Wyoming, topping 23.8 trillion cubic feet at the beginning of 2006, according to the Wyoming State Geological Survey. In 2000, Wyoming's proven natural gas reserves were 16.2 trillion cubic feet.

The advances are largely responsible for a \$9 billion build-out of natural gas pipelines connecting gas fields in the Rockies to U.S. markets in the Midwest and West Coast. Currently, Wyoming produces about 6.5 billion cubic feet of gas per day, enough to serve about 65,000 homes for one year.

Thursday's report said shale now makes up one-third of the 1,836 trillion cubic feet of potential resources across the country, much of it from a re-evaluation of shale gas in the Appalachian basin and the Mid-Continent region, Gulf coast and Rocky Mountain areas. Reserves jumped 16 percent overall from the group's last report two years ago, and Curtis said estimates could even go higher because not all areas where there is shale have been tested and explored.

Even with the jump, producers still will need to be able to access the areas where gas has been found and then drill and develop the sites, said Chris McGill of the American Gas Association.

Shale is a kind of layered, sedimentary rock that exists in formations throughout the world. In the U.S., gas production from shale dates back to the 1800s.

But the gas, tightly locked in rock formations, had been extraordinarily expensive to extract. That began to change about 15 years ago as producers developed new techniques such as horizontal drilling, where the drill is turned in a right angle to bore into a gas reservoir horizontally, and hydraulic fracturing, in which water is injected at high pressure into wells to shatter rocks deep underground, helping to release trapped gas.

Gas from shale now amounts to about 5 percent of total U.S. production, according to the Gas Technology Institute.

The report Thursday comes as producers have slashed production of natural gas as demand along with prices have crashed nearly 70 percent since last summer from \$13.69 per 1,000 cubic feet to about \$4.30 per 1,000 cubic feet.

The Energy Information Administration said this month that demand is expected to decline 2.2 percent this year, led by an 8 percent drop in industrial consumption as the nation's auto and steel companies have shut down plants and slashed production in what has become the longest recession since World War II.

The number of rigs exploring for gas and oil have been cut in half since last summer.

On Thursday, the government reported that U.S. reserves of natural gas surged again, sending prices on the New York Mercantile Exchange tumbling 4 percent.

Natural gas is used to generate about a fifth of the nation's electricity as well as to heat homes. It emits about half of the heat-trapping greenhouse gas that coal does. Those who are pushing natural gas the hardest, like Texas oilman T. Boone Pickens, have promoted natural gas as a transportation fuel that could be used to reduce dependence on foreign oil.

"I launched the Pickens Plan a year ago to help reduce our dangerous dependence on foreign oil, and using our abundant supply of natural gas as a transition fuel for fleet vehicles and heavy-duty trucks is a key element of that plan," Pickens said Thursday. "On the same day this report is going out, diesel prices are again on the rise, squeezing the trucking industry. Now more than ever we need to take action to enact energy reform that will immediately reduce oil imports."