

## How Much Gas is Really in Marcellus Shale?

*New figures by USGS cause industry to review their numbers*

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On Tuesday, August 23 the U.S. Geological Survey (USGS) released a new assessment of gas resources in the Marcellus Shale formation of the northeastern Appalachian Basin. Marcellus shale, they wrote in a press release, “contains about 84 trillion cubic feet (tcf) of undiscovered, technically recoverable natural gas and 3.4 billion barrels of undiscovered, technically recoverable natural gas liquids.”

This new USGS estimate is significantly higher than their previous assessment published in 2002, which pegged gas reserves at 1.9 tcf with another 0.01 billion barrels of natural gas liquids potentially available.

However, the new figure is lower than the numbers generated by Penn State University geoscience professor Terry Engelder and Fredonia, NY geology professor Gary Lash. In late 2008 the rock scientists plugged well production data into their computations and came up with figures indicating that the Marcellus shale could contain anywhere from 168 trillion to 516 trillion cubic feet of gas. That’s about 80 to 250 times the number USGS came up with. Other scientists came up with estimates of 100 to 200 tcf of gas recoverable from Marcellus shale.

Also, the new USGS estimate is much lower – some 326 trillion cubic feet lower – than the estimate the U.S. Energy Information Agency (EIA) came up with just six weeks earlier. On July 8 the Energy Department published an assessment of gas reserves estimating that Marcellus shale contained 410.3 tcf of gas that could fuel the economy.

Even though the new USGS estimate is only 1/5 of the Energy Department’s figure, Philip Budzik, an operations research analyst with the Energy Information Administration, was quick to accept the new government assessment. He told the press that the geological survey scientists are the experts in this matter. “They’re geologists,” he said. “We’re not.” In the future the EIA will incorporate the updated USGS numbers in their models and calculations.

Congressman Maurice Hinchey applauded the EIA for announcing it will adopt the USGS estimates. But he remains concerned about the process the agency used to reach their estimate of gas reserves. Last week Hinchey told the press that he has additional questions about how the change in the USGS Marcellus estimate will affect the outlook for shale gas production.

“Considering the reckless way in which hydraulic fracturing has been carried out in other parts of the country, it is important that we understand all of the environmental and economic impacts that would result if drilling were to move forward in our state,” Hinchey said. “That’s why it is essential that the public, the markets and policy makers have unbiased shale gas reserve estimates.”

Numbers are important – especially for decision-makers involved in determining our country’s energy future, Hinchey added. “We’ve got to get this right.”