

Moreover, even if this proposal did generate any savings, they would likely be dwarfed by the new spending and deficits in the Democratic bills we have seen. It is like charging a new Cadillac to the family credit card and getting excited about saving a few dollars on the cup holder.

On top of that, the CBO says both bills would add hundreds of billions of dollars to the debt. Simply put, these bills are moving in the wrong direction and would make the problems in our health care system even worse than they are today.

So it is clear we need to hit the restart button and begin working on real reform that would address the problems in our health care system. Americans want the two parties to work together on something as important and as personal as health care reform. Embracing the ideas I have mentioned and finding responsible ways to pay for reform are a good place to start.

Mr. President, I yield the floor and thank again my colleague from Oklahoma.

The ACTING PRESIDENT pro tempore. The Senator from Oklahoma.

Mr. INHOFE. Mr. President, first, I thank the minority leader for his comments. I said before he came in that there is no issue more meaningful to our people in Oklahoma than health care. I think there is an awareness. If you look at the polling data that was given by the Senator from Arizona, people are now aware this is not the way we should go.

We do have good ideas on this side of the aisle in terms of the health savings account, medical malpractice, and small businesses getting together to resolve this problem.

OIL AND GAS EXPLORATION

Mr. INHOFE. Mr. President, a surprise to a lot of people as to what we can do in the oil and gas business when we are concerned right now about the problem we have—our dependence on foreign countries for the ability to run this machine called America—is that we actually could resolve that problem. We could produce enough oil and gas and all the other resources I mentioned earlier so we would not have to be dependent on the Middle East for anything.

Increasing attention has been given to hydraulic fracturing, a key production method which aided in U.S. production of oil and gas from more than 1 million wells and continues to aid in the production from over 35,000 wells a year.

Hydraulic fracturing is a system that forces water into the ground to release oil and gas coming up. In fact, there are two things that open our potential. One is horizontal drilling and the other is hydraulic fracturing. It is a 60-year old technique. It has been responsible for 7 billion barrels of oil and 600 trillion cubic feet of natural gas. The National Petroleum Council reports that

60 to 80 percent of all wells in the next 10 years—most of these are gas wells—will require hydraulic fracturing to remain productive and profitable.

The first use of hydraulic fracturing was near Duncan, OK, in my State, way back in 1949. Since that time, companies such as Oklahoma's Devon and Chesapeake have perfected the practice. Very simply, it is the temporary injection of mostly water with sand, nitrogen, carbon dioxide, and other additives to fracture and prop open a ground formation to improve the flow of oil and gas through the rock pores and increase oil and gas production. Mr. President, 95 percent of the fluid is water; 99 percent is water and sand. We are talking about putting in the water and sand that would already be there. Hydraulic fracturing is used for both oil and gas production, but I would like to focus mostly on natural gas.

I have kind of good news and bad news. First, let me tell you the good news.

The Potential Gas Committee at the Colorado School of Mines reported in June that the United States has—it is kind of hard to talk about figures such as this—1,836 trillion cubic feet, or 1.8 quadrillion cubic feet, of technically recoverable natural gas. This is the highest reserve total ever reported by this organization in the last 44 years.

When the U.S. Department of Energy proven reserves are added to the total, the future natural gas supply of the United States is over 2,000 trillion cubic feet. At today's rate of use, that is enough natural gas to meet demand for the next 100 years. Only 1 trillion cubic feet of natural gas can heat 15 million homes for a year or fuel 12 million natural-gas-powered vehicles for a year.

T. Boone Pickens is often quoted in this Chamber. He characterizes the reserves this way: 2 quadrillion cubic feet of gas is equivalent to Saudi Arabia's total petroleum reserves.

I guess what we are saying is people are complaining we are importing from the Middle East oil and gas, and then they find we have it all right here. We don't have to do it. If the argument is, we don't want to use oil and gas which we think pollutes—which it does not—if that is their argument, then why are we willing to import it from Saudi Arabia and the Middle East? We can produce it right here in the United States.

Much of the increase noted in the news report comes from estimates of shale gas found in formations throughout the United States. In fact, shale gas accounts for one-third of America's total gas reserves. Again, we are talking about natural gas, which is very low in fossil fuels, burns very cleanly, very inexpensively, and certainly, as we can see by this chart, is very abundant.

The U.S. Department of Energy reports that by 2011, most new reserves growth will come from nonconventional shale gas reservoirs. The Amer-

ican Petroleum Institute forecasts that unconventional gas production, such as that from coalbed methane, or CBM, and shale will increase from 42 percent of total U.S. gas production to 64 percent in 2020. However, shale resources are largely only economically and technologically available due to hydraulic fracturing, that technique of forcing the gas out of the ground.

The good news does not only involve oil and gas reserves, it also means good news for jobs. For example, the 10,000 wells producing in 14 counties in north Texas, Barnett shale—Barnett shale is the type of shale that is characteristic in the northern part of Texas—in 14 counties, they are responsible for 110,000 jobs and \$4.5 billion in royalty payments. That is the people who own the land. That is a property rights issue. They account for 8 percent of the personal income, 9 percent of employment, and over \$10 billion in increased economic activity in north Texas.

The Haynesville shale in Louisiana has created 33,000 jobs, \$2.4 billion in business sales, \$3.9 billion in salaries, and \$3.2 billion in royalty payments. This is the economy we are talking about. We are talking about two separate issues: one is making us independent, the other is doing something for the economy.

People look at these things and say: Why in the world will the Democrats in this Chamber not allow us to drill offshore, won't allow us to get into shale production in the Western United States, and yet they complain about the fact we are importing our oil and gas from the Middle East?

The IPAA reports that the Marcellus shale in Pennsylvania and New York contains 516 trillion cubic feet of natural gas, which is enough to satisfy the U.S. demand for more than 35 years—in two States, Pennsylvania and New York, enough to satisfy our needs for the next 35 years.

A 2008 report on the Marcellus shale attributes production in the Marcellus to two key methods. One is hydraulic fracturing, again, the system used to make sure we are able to retrieve, to produce this shale. Oil and gas development employs more than 26,000 and continued development in the Marcellus shale is forecasted to create over 100,000 jobs. These jobs pay more than \$20,000 above the average annual salary in Pennsylvania. We have New York and Pennsylvania, two States—they do have economic problems. This is a way to produce 100,000 jobs, and those jobs average \$20,000 a year more than the average job in Pennsylvania and New York.

The Walton School of Business at the University of Arkansas recently completed an economic forecast of the Fayetteville shale. It estimates a business and capital investment in the area of \$22 billion, the creation of 11,000 jobs, and new State revenues of more \$2 billion by 2012.

We are talking about just in the State of Arkansas. In my State of

Oklahoma, we have the Woodford shale, which is pictured here and extends through southwest Oklahoma.

In Oklahoma, exploration of natural gas accounts for 80 percent of the State's energy production and over 50,000 people are directly employed by the oil and gas industry. One in seven jobs in Oklahoma is directly or indirectly supported by the crude oil and natural gas industry because we rank fourth in the Nation for natural gas production and fifth in crude oil.

Oklahoma received \$1.3 billion in taxes directly from oil and gas production in 2009. In fact, oil and gas account for 25 percent of all taxes paid in my State of Oklahoma.

These reserves mean domestic energy production and jobs, but now I have bad news. Another reason hydraulic fracturing has received increasing attention is because some Members of Congress want to subject it to new Federal regulation, specifically the Safe Drinking Water Act, by claiming the practice endangers drinking water sources. This Congress, House Members from Colorado and New York and Senate Members from Pennsylvania and New York have introduced legislation imposing new Federal regulation. Some of these Members claim that allowing the practice is a loophole in the Federal law and that it is free of regulation.

Last Congress, at a House hearing, the current chairman of the House Energy and Commerce Committee complained about hydraulic fracturing:

Oil and gas companies can pump hundreds of thousands of gallons of fluid—containing any number of toxic chemicals—into sources of drinking water with little or no accountability.

This is completely false. Nothing could be further from the truth. As former chairman and the current ranking member of the Senate Environment and Public Works Committee, I have a history of working on environmental and energy issues. I can tell you new Federal regulation of hydraulic fracturing would be a disaster.

The Safe Drinking Water Act was enacted in 1974. It was enacted to establish drinking water standards and to control permanent disposal of waste by underground injection. By 1974, hydraulic fracturing had been in commercial operation for 25 years. This law was not designed nor intended to regulate the practice, and the legislative history demonstrates that. The 1974 conference report states that none of the act's underground injection provisions are to "needlessly interfere with oil and gas production." That was in the law in 1974.

The 1980 amendments were probably the most significant until 2005 for clarifying the act's application to oil and gas operations. The 1980 amendments created a new section 1425 to allow States to regulate underground injection from two types of oil and gas operations known as injection wells and disposal wells. However, given the

chance to additionally address hydraulic fracturing, Congress declined. In the 2005 Energy bill, Congress specifically clarified the act is not intended to apply to hydraulic fracturing.

Everything all the way up from 1950, all the way up to the present time was saying the act was not intended to apply to hydraulic fracturing. There are a myriad of Federal statutes, such as the Federal workplace rules, the Emergency Planning and Community Right to Know Act, the Toxic Substances Control Act, among others, which regulate the storage and disposal, transporting, handling, and reporting of chemical use. Federal law requires disclosure of any release to the environment. Those statutes overlay State laws which also include extensive rules permitting oil and gas drilling and production. No state has been required to regulate hydraulic fracturing under the Safe Drinking Water Act with the exception of Alabama.

The Eleventh Circuit Court in Alabama issued an opinion in 1997 ignoring legislative history, oil and gas industry practices, and the clear text of the law, finding that Alabama should subject hydraulic fracturing in coalbed methane production to the Safe Drinking Water Act. However, hydraulic fracturing has not been subject to the Safe Drinking Water Act and is not correctly governed by the act.

I am not alone in this opinion. President Obama's energy czar agrees with me. In 1995, as EPA Administrator—during the Clinton administration—Carol Browner wrote in response to litigation that Federal regulation is not necessary for hydraulic fracturing. She correctly made the point that the practice was closely regulated by the States and "EPA is not legally required to regulate hydraulic fracturing." Most importantly, she further wrote that there was no evidence that hydraulic fracturing at issue resulted in any contamination or endangerment of underground sources of drinking water. Now, this is Carol Browner. That is the current energy czar serving in the White House.

Following the 1997 litigation in Alabama, I introduced legislation in 1999 with Senator SESSIONS and again in 2005 clarifying that hydraulic fracturing is not correctly regulated by this act. In March of 2002, the Senate spoke on this issue voting 78 to 21 on Senator BINGAMAN's amendment, which I cosponsored, to study "the known and potential effects on underground drinking sources of hydraulic fracturing." That amendment ultimately did not become law, but in June of 2004, the U.S. Environmental Protection Agency gave us the answer. It issued its lengthy report, which EPA began in late 2000 to determine if underground drinking water sources have been or are endangered from the use of hydraulic fracturing from coalbed methane production. The EPA study of coalbed methane wells is particularly impor-

tant because the CBM wells are shallower, meaning they would be closer to the underground drinking water sources than other conventional or unconventional oil and gas well production.

In other words, the other production is down much deeper than that which uses the technique of hydraulic fracturing. These are deep wells. In fact, most "fracked" wells—that is what they are called—are hundreds of thousands of feet deep and well below drinking water sources. In this 2004 report, EPA conducted a review of all 11 major coal basins across the country and of 200 peer-reviewed publications. It reviewed 105 comments in the Federal Register. It requested information from 500 local and county agencies in States where CBM production occurs. It interviewed 50 local and State government agencies, industry representatives, and 40 citizens groups which alleged drinking water contamination from hydraulic fracturing. After completing its 4-year study—a 4-year study—the EPA concluded:

The injection of hydraulic fracturing fluids into CBM wells poses little or no threat to underground sources of drinking water and does not justify additional study at this time.

EPA had planned to study contamination in a two-phase study. Following these findings, the EPA did not even initiate the second phase of the study. In fact, it was so strong that they didn't even do the next study.

This is a very strong statement. In fact, in hydraulic fracturing's 60-year history there has not been a single documented case of any kind of contamination. Mr. President, that is 60 years. As early as 1998, the Ground Water Protection Council conducted the first survey of the 25 States in which hydraulic fracturing for oil and natural gas production occurs for any complaints of underground contamination. The survey reported no instance of contamination from the practice. In 2002, the IOGCC, representing 37 States, conducted its own survey making the same findings. On June 12, the Oklahoma Corporation Commission addressed the issue of hydraulic fracturing again in correspondence with these 37 States. The Corporation Commission wrote that it has been regulating oil and gas drilling and production for 90 years, which has included tens of thousands of hydraulic fracturing operations over the past 60 years. The commission wrote:

You asked whether there has been a verified instance of harm to groundwater in our state from the practice of hydraulic fracturing. The answer is no.

States have been regulating oil and gas exploration and production for years. The Department of Energy and Ground Water Protection Council released a report in May titled "State Oil and Natural Gas Regulations Designed to Protect Water Resources," where it described State regulations which require multiple barriers, casings, and

cement reinforcement to protect against groundwater contamination. Fracturing involves removing thousands of gallons of waters from the well which includes the fracturing fluids. Once these fluids are returned to the surface, regulations require they are treated, stored, and isolated from groundwater zones. All these processes together work to significantly reduce the risk to groundwater.

This DOE and Ground Water Protection Council report ultimately concluded that Federal regulations on fracturing would be “costly, duplicative of State regulations, and ultimately ineffective because such regulations would be far removed from field operations.” Equally interesting, the report also concluded—and keep in mind this is the report of the Department of Energy and the Ground Water Protection Council—the “only alternative to fracturing in reservoirs with low permeability such as shale would be to simply have to drill more wells.” In other words, if we are not able to get these wells to produce a lot of shale, we would have to drill a lot of wells in their place.

These findings mirror the EPA’s 2004 report of hydraulic fracturing in CBM production. EPA noted that fracturing involves the removal of thousands of gallons of ground water. This removal includes the fracturing fluids and the possibility that fracturing chemicals affect ground water. EPA also concluded that the low permeability of rock where hydraulic fracturing is used acts as a barrier to any remnant of fracturing chemicals moving out of the rock formations, as has been proven.

None of these findings are new. In the 1980 amendments to the Safe Drinking Water Act, Congress acknowledged that “32 States that regulate underground injection related to production of oil and gas believe they have programs already in place to meet the requirements of this Act. States should be able to continue these programs unencumbered with additional Federal requirements.”

We need to recognize that in considering additional Federal regulation we are experimenting with disaster. In January, the DOE released a report by Advanced Resources International, which evaluated the economic and energy supply effects on oil and gas exploration and production under a series of new regulatory scenarios. One scenario evaluated the effects from new Federal regulation of hydraulic fracturing. According to the report, the largest cost for new unconventional gas wells would be from any new Federal regulations on hydraulic fracturing. The report concluded these costs would amount to an additional \$100,000 for each well in the first year alone.

Among other factors, this report concludes that increasing Federal regulations on hydraulic fracturing would reduce unconventional gas production by 50 percent over the next 25 years. Even

more recently, the American Petroleum Institute released a report in June which only evaluated the effect of increased Federal regulations and the effect of eliminating the practice of hydraulic fracturing altogether. The report determined that through duplicative Federal regulations, the number of new oil and natural gas wells drilled would drop by 20 percent in the next 5 years.

Should hydraulic fracturing be eliminated, new oil and gas wells would drop by 79 percent resulting in 45 percent less domestic natural gas production and 17 percent less domestic oil production.

It would be a disaster to impose new Federal regulations. They are talking about doing that now. They talked about it a few years ago. Every report has discouraged that from happening. Again, I am not alone in this opinion. Colorado Governor Bill Ritter recognizes the value of the practice. In the Denver Business Journal, the Governor characterized the bills pending in Congress imposing new Federal regulations on hydraulic fracturing as “a new and potentially intrusive regulatory program.” That was Governor Bill Ritter. A Colorado newspaper recently reported a number of Colorado counties have adopted resolutions against the pending Federal bills. States are passing their own resolutions opposing new Federal regulation of hydraulic fracturing.

For example, in March the North Dakota Legislature passed a concurrent resolution—I say to the Senator from North Dakota—to not subject hydraulic fracturing to needless and new Federal regulation. North Dakota is home to the Bakken shale, where oil wells are reported to be producing thousands of barrels a day.

America has tremendous natural gas reserves. The exploration and production of these reserves using hydraulic fracturing has been regulated by the States and conducted safely for 60 years. The oil and gas industry contributes billions in State and Federal revenues each year and billions in salaries and royalty payments. The oil and gas industry employs 6 million people in the United States. When the United States is approaching 10 percent unemployment, and when we want energy security and independence from foreign energy, why would we want to go out of our way to restrict an environmentally and economically sound means to extract our own resources—a means that has demonstrated effectiveness and safety for 60 years?

The oil potential in ANWR would produce 10 billion barrels or 15 years’ worth of imports from Saudi Arabia. The RAND Corporation has reported that the new potential production in just Utah, Colorado, and Wyoming would be around 1 trillion barrels of oil. That is three times Saudi Arabia’s oil reserves and more oil than we are currently importing from the entire Middle East. But the Democrats will

not let us produce. We are currently the only country in the world that doesn’t develop its own resources. In fact, the President’s budget imposes \$31 billion in new taxes on oil and gas development. We must not impose any new—

The ACTING PRESIDENT pro tempore. The morning business period is closed.

Mr. INHOFE. I will finish this last sentence, if it is all right.

We must not impose new burdens. This is a procedure that is necessary for us to put ourselves in a situation where we can become energy independent, and I encourage all my colleagues to look very carefully at the one thing that is going to give us that independence, and that is this procedure called hydraulic fracturing.

I yield the floor.

CONCLUSION OF MORNING BUSINESS

The ACTING PRESIDENT pro tempore. Morning business is concluded.

ENERGY AND WATER DEVELOPMENT AND RELATED AGENCIES APPROPRIATIONS ACT, 2010

The ACTING PRESIDENT pro tempore. Under the previous order, the Senate will proceed to the consideration of H.R. 3183, which the clerk will report.

The assistant legislative clerk read as follows:

A bill (H.R. 3183) making appropriations for energy and water development and related agencies for the fiscal year ending September 30, 2010, and for other purposes.

The ACTING PRESIDENT pro tempore. The Senator from North Dakota.

AMENDMENT NO. 1813

(Purpose: In the nature of a substitute)

Mr. DORGAN. Mr. President, I call up the substitute amendment to H.R. 3183, which is at the desk.

The ACTING PRESIDENT pro tempore. The clerk will report.

The assistant legislative clerk read as follows:

The Senator from North Dakota [Mr. DORGAN] proposes an amendment numbered 1813.

Mr. DORGAN. Mr. President, I ask unanimous consent to dispense with the reading of the substitute amendment.

The ACTING PRESIDENT pro tempore. Without objection, it is so ordered.

(The amendment is printed in today’s RECORD under “Text of Amendments.”)

Mr. DORGAN. Mr. President, this is the Energy and Water Development Appropriations Subcommittee bill that I bring to the floor this week with my colleague, Senator BENNETT, from Utah. I am chairman of the subcommittee, Senator BENNETT is the ranking member, and we have worked on the bill for some long while.

On July 9, 2009, by a vote of 30 to 0, the committee recommended the bill,