

Poland Uses Shale Gas to Shake Reliance on Russia

By [The Moscow Times](#)

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Riders on a Polish tram braving the cold as the country looks for fuel alternatives in its own supply of shale gas. **Kacper Pempel**

LESNIEWICE, Poland — When Wiesław Radzicki took office as the mayor of Lesniewice in the gently rolling farmland of southeastern Poland 26 years ago, the Soviet garrisons that dotted the region were a stark reminder of which superpower was in control.

The signs of Russian occupation have vanished, but over the past year a new superpower has moved in, its presence spelled out on the distinctive logos plastered on the trucks used by U.S.-based oil services company Halliburton.

It's all part of Poland's ambitious goal to exploit Europe's biggest estimated deposits of shale gas. Beginning in 2014, Warsaw wants to tap an estimated 5.3 trillion cubic meters of recoverable reserves of gas — enough, according to the U.S. Energy Information Administration, to supply Poland with more than 300 years of its domestic energy needs.

But the shale gas push is about more than energy. Poland wants to break its reliance on Russian energy and reduce Moscow's power over Europe. That is one reason why Warsaw has welcomed U.S. oil majors such as Chevron, ExxonMobil, Conoco and Marathon, even though it risks igniting tensions with Russia.

"If this thing comes true, if the American technologies deployed here at some point are really able to produce this gas, then this means a winning situation for the whole of Europe really," Radzieciak said in an interview in his small office filled with sports trophies, banners from local teams and a large map of Poland on the wall. "It would create more competitiveness on the gas market, which is now dominated by Russia, and one side would not be able to force anything unilaterally anymore."

Western European capitals are just as eager as Poland to diminish Russian influence over supplies. Russia currently supplies 25 percent of deliveries to the European Union. Daniel Yergin, a Pulitzer Prize-winning author and energy historian who included a chapter on shale gas in his latest book "The Quest," sums up Warsaw's thinking: "They're motivated to develop it economically and they're motivated to develop it politically."

But Russian officials, publicly at least, dismiss the challenge, arguing that it will prove Russian gas is cheap.

"Oh, we're so thrilled that they are starting to produce shale gas!" Sergei Komlev, head of contract structuring at Russia's state-controlled Gazprom told Reuters last week. "Look, we do not believe in this myth of shale gas, that it is cheap gas. It is not true."

Fracking? No Problem

There is one good practical reason that Poland has turned to U.S. companies to unlock its huge shale fields: American firms dominate shale gas technology.

The breakthrough came in 2003 when independent U.S. drillers, led by Devon Energy Corp, combined drilling at once-impossible angles, known as horizontal drilling, with hydraulic fracturing, or "fracking" — an older technology in which shale rock is cracked open by chemical-laced water blasted underground along with sand to prop the cracks open.

The United States produced 4.87 trillion cubic feet of shale gas in 2010, up from virtually nothing in 2000 according to the U.S. Energy Information Administration. The agency estimates that shale gas will account for about 46 percent of U.S. natural gas production in 2035 — an encouraging sign for Poland and other Eastern European nations exploring unconventional gas.

But the torrid pace of shale development has also sparked a public backlash in the United States and elsewhere over fears that fracking pollutes groundwater and may cause earthquakes. Similar worries have led to a ban in France and Bulgaria and suspension in Britain. Fracking is also the subject of public debate in Germany.

A European Union-commissioned study found in January that EU law was enough for now to regulate shale gas exploration, although changes might be needed once Europe enters the development phase.

In Poland, so far, energy security concerns have trumped environmental worries. In comparison with countries such as Britain or Germany, the green movement is less powerful in coal-reliant Eastern Europe. A late 2011 poll found that 73 percent of Poles backed developing shale, while only 4 percent opposed exploiting the unconventional gas.

A short drive outside Lesniowice, workers at a Chevron-operated wellhead keep a massive drill running 24 hours a day in search of the natural gas trapped in rock deposits.

"I have no worries at this stage, the technology seems 100 percent safe," said Mayor Radzieciak, who estimated that potential revenues from shale could mean a more than tenfold increase of his office's current annual budget of 10 million zlotys (\$3.15 million). "People here are more opposed to wind farms than this."

The Fears In Moscow

A Poland awash in gas could mean dwindling revenues and further loss of influence in a region Moscow once controlled with an iron fist. Are Russian officials too dismissive of the threat?

Moscow, some diplomats and oil analysts say, believes that Poland's weak infrastructure, among other problems, will slow the country's ability to exploit its gas.

"They are aware of the dangers," one Western diplomat said. "But they really don't believe shale will happen in Europe."

That could be why Gazprom felt confident enough to cut supply to Europe during the recent cold snap.

Others say Russia is only too aware of the shifting dynamic. Poland's investment in shale gas since 2009 has already shifted the terms of trade, according to Robert Hormats, the U.S. undersecretary of state for economic, energy and agricultural affairs. One obvious change is that Russia and Poland renegotiated Poland's gas contract last year at terms very favorable to Warsaw.

Amy Myers Jaffe, an energy policy expert at the Baker Institute at Houston's Rice University, sees rival gas sources as a factor behind Russia's April deal with Exxon in which state-run Rosneft brought in the U.S. giant to accelerate its development of deepwater Arctic oil and gas.

Other analysts say Poland and other rivals were not a factor in that deal.

A Baker Institute report showed that Russia's market share of European gas fell from about a quarter to a fifth in the decade to 2010, partly due to increased use of natural gas diverted from the oversupplied U.S. market.

"Especially in gas, countries like Russia that were slow to the mark are losing market share and are going to lose more market share," she said. "There's a finite market that is going to go to shale, because I can do that quickly, and it doesn't require a \$10 billion [liquefied natural gas] installation, where I have to put all that money at risk."

Poland currently relies on coal for most of its energy needs; natural gas, most of it Russian,

accounts for about 13 percent of its supply. That gives Poland more leverage over Russia than is sometimes apparent.

"The last thing they [Moscow] want is anything that upsets their monopoly on gas," said William Perry, a former U.S. secretary of defense, after a trip to Moscow to discuss nuclear proliferation. "I think it's fair to say they are very concerned about it."

The Russian Energy Ministry declined to comment.

Poland's Bumpy Roads Ahead

Much needs to be done in Poland if it is to wean itself off Russian supplies. Any boom will require thousands of skilled workers to build and operate wells and construct the roads and pipelines required to transport gas westward.

"For Poland to move forward, the key thing is going to be the scale-up," said John Claussen, Chevron's country manager for Poland.

One incentive for outside investors is the fact that gas prices in Europe are more than two times higher than in the United States. And with long-term contracts in Europe and Asia tied to oil prices, shale gas remains attractive despite worries about a weak economy that could cap future demand.

Poland's government has so far granted more than 100 exploration licenses and hopes the eight currently active wells prove that extracting gas is viable — even though the first two have so far been disappointing.

Malgorzata Maria Klawiter, an official from near Gdansk in northern Poland, remains optimistic. Gdansk has distributed 89 concessions covering about 85 percent of the region. In total, licenses cover 58,565 square kilometers, or some 18 percent of Poland's land.

Polish Deputy Foreign Minister Beata Stelmach said the next step is to enact legislation needed to attract investors and give them assurances that they will see returns for exploration that can cost hundreds of millions of dollars.

"If we move to the production level, then Poland's international position can change from a gas importer, to producer, or maybe eventually even exporter," Stelmach said. "This changes not only the domestic situation by improving energy security, but also strengthens the competitiveness of our country."

"Our Gazprom contract runs until 2022, and let's until then move within the framework of this contract. But, at the same time, we have to keep our fingers crossed to develop the shale gas project."

John Buggenhagen, the Warsaw-based exploration director for San Leon Energy, said that while other former Soviet-bloc nations such as the Czech Republic, Hungary and Ukraine are exploring similar developments, it is Poland that offers the most promise.

"Look at the history of Poland," Buggenhagen told a recent shale gas conference in Warsaw. "We are only 23 years from the fall of communism, and we are in an energy rush with

a country that has been reliant on coal and on supplies from the east."

At Chevron's site outside Lesniowice, head of drilling Tim Nowak and his crew are doing all they can to make that happen. The site is a hive of activity with trucks owned by Halliburton parked in the lot, and drill parts and pipe casings strewn across the ground. The low rumble of the drill drones on in the background.

Nowak acknowledges the challenges of creating an industry from the ground up. But as he guides a tour around the first of Chevron's five exploratory wells in Poland, he remains positive. "Right now Poland is an exciting place to be," he said.

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