



Shale Goes Global

State Dept. forum seeks to export promise and potential of shale gas to markets around the world – but will Administration apply same lessons, encouragement here at home?

Col. Edwin Drake is widely credited with developing the world's first commercial oil well in [Titusville, Pennsylvania](#) in 1859. But here's something you might not have known about the guy: He wasn't actually a colonel.

Here's something else: According to Chinese and Polish historians, Drake didn't actually drill the first oil well either. In Poland, that honor rests with [Ignacy Łukasiewicz](#), who described his discovery in 1854 as the advent of a "new branch of industry which shall bear plentiful fruit." Of course, from China's perspective, both Drake and Łukasiewicz arrived on the scene about 1,500 years too late. In their record books, 4th century monks are credited with developing the first-ever oil well, employing cutting-edge technology in the form of [bamboo shoots](#) to produce the oil needed to heat water from which deposits of salt could be distilled. Turns out even back then Chinese food had plenty of salt.

But while friendly disagreements may persist when it comes to assigning credit and location for the discovery of oil, when it comes to the discovery of clean-burning natural gas from shale, no ambiguity exists: [We found it](#). And much more important: We invested the time, talent and resources in developing the technologies needed to make its production possible. The upshot? A veritable shale gas "revolution" taking place right here, right now, all across America -- with [hundreds of thousands of jobs](#) and billions in state, local and federal revenue currently being generated in its wake.

Not yet, anyway. But an event organized by the U.S. Department of State earlier this week sought to begin the process of changing all that. Presided over by [David Goldwyn](#), State's coordinator for International Energy Affairs, the two-day Global Shale Gas Initiative Conference held in Washington on Monday and Tuesday brought together representatives from 20 countries (including the United States) to

share news, views and technical insights related to the business of producing natural gas from shale.

What interest does the State Department have in promoting a phenomenon like that? Mr. Goldwyn took on this question directly [in his opening remarks](#):

[O]ur motivation as the State Department to engage on this issue should be clear for foreign policy and energy security reasons. Countries around the world need diversity of energy supply. There are countries with millions of people – in fact, tens and some hundreds of millions of people – **without access to electricity services**. They need a feedstock and they need it for base load energy. ...So it's understandable that they want to develop shale gas, but **we have, in our country, an umbrella of laws and regulations that makes sure this is done safely and efficiently**.

But just as no two shale plays are exactly the same, no one nation holds the exclusive rights to producing abundant resources from shale that underlies its land. Just about everybody's got the stuff, geologists tell us. But not everyone has access to the best and most innovative technologies needed to convert the opportunity of shale into the reality of a stronger economy, a cleaner environment, and a higher standard of living for all who call that country home.

Of course, this conference didn't exactly come out of left field; according to the White House, the president and his administration continue to be actively involved in spreading the good news of shale gas far and near, even using it as a tool of diplomatic engagement in promoting a clean, sustainable and growth-oriented energy future for some of our closest and most important trading allies across the globe. [Back in November](#), the White House described its efforts to export the promise and potential of shale to our friends in China in the following way:

[The] Shale Gas Initiative will **allow the U.S. and China to use experience gained in the United States to assess China's shale gas potential**, promote environmentally-sustainable development of shale gas resources, conduct joint technical studies to accelerate development of shale gas resources in China, and **promote shale gas investment in China** through the U.S.-China Oil and Gas Industry Forum, study tours, and workshops.

[According to Reuters](#), the Chinese have been more than happy to accept our insight and technical advice in this space, with the country just last week launching a national shale gas research center and announcing a series of goals that include: 1) finding one trillion cubic meters of shale gas, 2) building 15-

30 billion cubic meters of production capacity, and 3) ultimately using shale to meet as much as 12 percent of China's total natural gas demand by 2020. Don't think they can get there? Smart money says not to bet against them. According to reports, China's total shale gas potential may soon be measured in quadrillions of cubic feet, not trillions. All they need is the technology and infrastructure to bring these resources to market.

Same goes for our friends in Poland, who view the prospect of shale gas development as a national security imperative more than anything else. You see, as it currently stands, [a large portion](#) of the natural gas upon which the Polish economy depends is piped in each day from Russia – and it doesn't take a Ph.D. candidate in European history to understand the tensions and uncertainties inherent in that arrangement.

Earlier this month, the first-ever application of [hydraulic fracturing technology](#) was introduced at the Markowola-1 exploratory well in Kozielnice, Poland. How much natural gas will they find? No one can say for certain. But according to [one report from Wood Mackenzie](#), the Polish people may have more than 47 trillion cubic feet of recoverable natural gas trapped in shale deposits beneath their feet – or nearly half the entire proven natural gas reserves in Europe. Who's laughing now, right Poland?

The story, of course, goes on and on from there: South Africa's got lots of shale potential; so too does Sweden, Mexico, Canada, Australia, Morocco, Pakistan, India and Armenia – [just to name a few](#). But while the depths and temperatures and technical requirements will vary from play to play to play – one thing will always remain constant: the continued need to use cutting-edge [fracturing technology](#) to tap into resources that would be too deep, too diffuse and too difficult to get at otherwise.

As was made clear in Washington this week, the U.S. government understands this reality – at least in an international context. Left to be determined is whether it will apply these same lessons to shale gas exploration here in the United States. Let's promote shale gas globally, but let's act locally on it as well. That was the message delivered by the State Department in Washington this week. Any chance the good folks over at EPA heard it?