

With Controls, Britain Allows Hydraulic Fracturing to Explore for Gas

By STANLEY REED

LONDON — The British government gave the go-ahead Thursday for exploratory hydraulic fracturing, or fracking, to extract natural gas from shale-rock deposits.

Because of the environmental concerns about the controversial technique, which include the risk of water pollution, the government called for stringent controls on fracking. But the decision nonetheless potentially opens the door for a shale gas industry to begin developing in Western Europe, even though many governments on the Continent remain wary. Poland has already allowed big energy companies to do exploratory drilling.

Europe is the world's second-largest gas market, but it is becoming increasingly dependent on expensive imported gas from places like Russia and Algeria.

"Shale gas represents a promising new potential resource for the U.K.," Edward Davey, the energy and climate change secretary, said in a statement. "We are still in the very early stages of shale gas exploration in the U.K., and it is likely to develop slowly."

With the British economy flagging, the government is under pressure from business to encourage the use of natural gas in power generation alongside its large recent commitment to energy sources like offshore wind and nuclear. Those sources are lower emitters of carbon, but costly. The renewables add to electricity costs in Europe, as do the currently high gas prices, which are approximately double those in the United States.

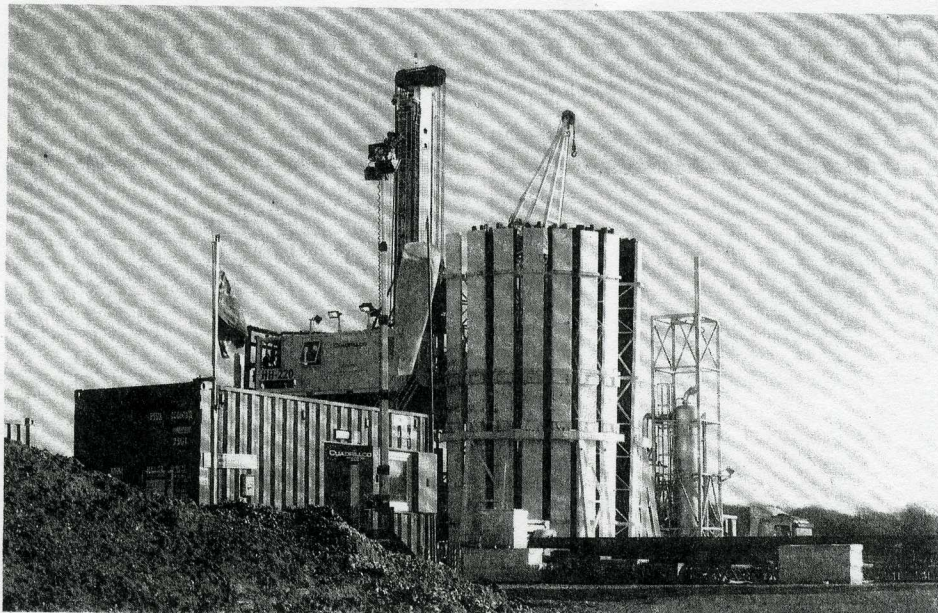
Prices in the United States are lower largely as a result of the increased production of shale gas, despite the opposition of environmentalists.

The gas industry and other interests argue that shale gas, which burns cleaner than coal, could contribute to making gas a logical transition fuel until low-carbon energy sources are sufficiently developed to take over the load. Substantial amounts of shale gas could also help compensate for the decline of oil and gas production in the North Sea, a mainstay of the British economy.

Shale gas "could contribute significantly to our energy security, reducing our reliance on imported gas as we move to a low-carbon economy," Mr. Davey said.

Some European industries are being hurt by high natural gas prices. "We are seeing energy-intensive industry choosing to invest in the U.S. rather than in Europe," said Catherine Robinson, an analyst with the market research firm IHS CERA in London.

Britain, where the government



CHRISTOPHER FURLONG/GETTY IMAGES

A drilling rig of Cuadrilla Resources. The company has been working on a handful of shale gas wells in the Blackpool area.

is relatively well disposed to shale gas, is viewed as something of a bellwether. If shale gas catches hold in Britain and there are no major problems, its prospects on the Continent might look better as well.

"We now see the U.K. as the front-runner in this story, along with Poland," said Menno Koch, an analyst at Lambert Energy Advisory in London.

But there is strong opposition to shale gas in Europe, particularly in Western Europe. France, for instance, which is viewed as having some of the most promising shale oil and gas prospects, particularly in the Paris area, has banned fracking.

The German state of North Rhine-Westphalia has formally halted the practice, and Lower Saxony state, where Exxon Mobil has done some drilling, has refused to let the company continue. On Friday, Germany's upper house of Parliament will vote on legislation that would ban the practice, pending a further, government-led assessment of the risks involved.

The main concerns, which have quickly spread to Europe from the United States, center on hydraulic fracturing, the practice of pumping large quantities of fluids into wells to loosen the rock formations and enable the gas to flow. The fear is that the fracking fluids might escape from the wells and pollute drinking water and the surrounding countryside. Another concern is that

the shale gas industry, which requires drilling many wells, is not suited to the densely populated landscapes that characterize much of Western Europe.

"Pinning the U.K.'s energy hopes on an unsubstantiated, polluting fuel is a massive gamble, and consumers and the climate will end up paying the price," the environmental group Greenpeace said Thursday in a statement from London.

The group derided the decision as the government's "dream of building Dallas in Lancashire" and referred to it as "a dangerous fantasy."

Countries in Eastern Europe like Poland, Ukraine and Lithuania are more open to shale gas, both to generate jobs and to ease their dependence on Russian gas. Chevron and Eni of Italy, among other companies, are in the early stages of exploratory drilling in Poland. Bulgaria, another Eastern European country thought to have shale gas potential, has put a moratorium on exploration.

The British government is putting in place a system designed to shut down any fracturing operation before it can cause damage. It is also setting up an Office of Unconventional Gas and Oil, to monitor and potentially aid the development of the new industry.

The decision in Britain on Thursday is encouraging for a handful of companies interested in exploring for shale gas in the country. That includes, most notably,

Cuadrilla Resources, which has already spent tens of millions of dollars on a handful of shale gas wells in the Blackpool area of northwestern England. Cuadrilla is backed by the American private equity firm Riverstone Holdings, whose European chief is John Browne, the former chief executive of the oil giant BP. Mr. Browne is also chairman of Cuadrilla's board.

Cuadrilla's chief executive, Francis Egan, said in a statement, "Today's news is a turning point for the country's energy future."

Cuadrilla set back the shale gas cause in Britain and Europe when fracking on one of its wells set off two small earthquakes in April and May 2011. A subsequent study commissioned by the British government found that the fracking fluid had destabilized a fault in the earth, causing it "to fail repeatedly in a series of small earthquakes."

The tremors did some damage to the well but did not compromise its integrity and were not strong enough to cause structural damage outside, the study said. But the government said Thursday that it had concluded "that the seismic risks associated with fracking can be managed effectively with controls."

Cuadrilla ceased fracking operations after the quakes, although it has been doing preparatory drilling at a site called Anna's Road.

Mr. Egan said that based on

Cuadrilla's work, the company thought there could be 200 trillion cubic feet of shale gas in the thick rock layers beneath the company's 347-square-mile concession in Lancashire. If only 10 percent were recoverable, that could be enough gas to supply Britain for around seven years.

Whether gas will flow in commercial quantities has yet to be established, although the early tests were encouraging. To find out, Cuadrilla wants to fracture at least three wells, some of which have already been drilled.

Before it starts fracking, Cuadrilla still needs to clear various hurdles, including getting local permission. A Cuadrilla spokesman, Neil Cameron, said that the earliest the company was likely to be able to go ahead was in March.

Fracking is likely to stir opposition from environmental activists. Last year three people from a small group called Frack Off entered a Cuadrilla site and chained themselves to the equipment. They were found guilty of trespassing and fined. Frack Off says it worries that huge swaths of the British Isles will be opened up to various types of mineral exploitation, including shale gas and coal bed methane, another unconventional gas technique.

"This now threatens our landscape, and local people are going to be in the firing line," Andrew West, a Frack Off campaigner, said by telephone. "The resistance is growing."

cers, tax inspectors and other officials at the bank's headquarters in Frankfurt, as well as offices and private homes in Düsseldorf and Berlin. The two executives are subjects of the inquiry because they signed tax return documents.

"The criminal investigation is going on, and it is very difficult to predict when that will be over," Mr. Krause said.

The bank is dealing with a difficult environment even without pressure from law enforcement authorities.

Like its rivals, Deutsche Bank has been trying to revamp its businesses in the face of a sluggish market and economic weakness. The bank is also moving to reduce risk as new regulations take effect over the next several years. The rules will increase the amount of capital banks must hold against certain kinds of assets.

Deutsche Bank, which is in the midst of closing its books for the year, decided to update investors on the unanticipated costs. Mr. Krause said the bank did not know the amount of those expenses.

"The outcome is still open," he said. "But there will be quite a large amount of things to consider, which could be substantial and could lead to a loss."

Some costs relate to an overhaul of Postbank, a Deutsche Bank unit that offers banking services from German post offices. In addition, the bank may need to record losses from debt or other securities that it owns.

The bank announced on Thursday that it would form a new unit focused on winding down investments outside its main businesses. The so-called noncore operations unit will take custody of Deutsche Bank's holdings of Spanish and Italian bonds, either to sell them or hold them until they mature.

It may be harder for the bank to address the problems with its reputation.

The bank is among the institutions under investigation by the authorities in the United States and Europe over the possible manipulation of benchmark interest rates, like the London interbank offered rate, or Libor. Deutsche Bank said it had set aside money for potential penalties related to the case.

In May, Deutsche Bank agreed to pay \$202 million to settle claims by the United States Justice Department that a bank subsidiary had filed false information to qualify for federal mortgage insurance. The bank is also the target of multiple lawsuits in the United States related to its sales of securities linked to the mortgage market.

Remember the Neediest!

Melissa Eddy contributed reporting from Berlin.