

Shale gas will change the world

By Gideon Rachman

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Everybody's favourite moment in *The Graduate* is when the film's hero is cornered by one of his parents' friends. The older man's advice to Benjamin Braddock consists of just one word – "plastics". Something similar keeps happening to me at international conferences. I will be minding my own business, when a delegate will get up with a gleam in his eye and announce portentously – "shale gas!"

This conference chatter is a reflection of growing excitement in the US and Europe at the idea that we may have discovered a large part of the answer to one of the most vexatious problems in foreign and economic policy – energy security.

For decades, American politicians have vowed to pursue "energy independence" and to free the US from reliance on foreign supplies. Yet the reality was that America was facing a future of growing dependence on oil and gas from a variety of unstable, unfriendly and autocratic countries. Meanwhile, the European Union has become increasingly paranoid about its reliance on natural gas supplies from Russia – particularly given the Russian propensity to exert pressure on its neighbour, [Ukraine](#), by cutting off gas supplies. Just to add to the frustrations for the US and Europe, one of the very few alternative suppliers of natural gas is [Iran](#).

It has long been known that the US is sitting on potentially huge supplies of unconventional shale gas. But until recently, these reserves were very hard to exploit. Now, however, technological breakthroughs mean that many of the economic and technical concerns about exploiting shale gas reserves are being dealt with. Over the past three years, American production has soared. This year, the US

overtook Russia to become the world's biggest gas producer for the first time in a decade.

The result is that the shipping terminals that the US built to receive liquid natural gas from overseas are now lying virtually empty. The rise of shale gas, which can be used to produce electricity, reduces dependence on domestically produced, but dirty, coal. If cars powered by electricity or gas improve, shale gas would also reduce reliance on Middle Eastern oil.

Both the EU and China are excited by the idea that they too may soon enjoy a shale gas bonanza. Chinese foreign policy has increasingly been driven by the need to secure energy supplies. But China looks as if it may have its own shale gas reserves, and has signed an agreement with the US to look into exploiting them.

The excitement in Europe is even more pronounced. Just as North Sea oil and gas supplies are running down, the British are hoping that they may discover exploitable supplies of shale gas in Wales and north-west England. The Poles, who have their own special reasons to fear energy dependence on Russia, also think they have exploitable reserves. Radek Sikorski, the Polish foreign minister, recently visited Houston to talk to the big US energy companies about shale gas.

Even if European reserves are not as promising as some hope, the EU still stands to benefit indirectly from American shale gas. Supplies of liquid natural gas from Africa and the Gulf, which might have gone to the US, are now being redirected to Europe – reducing the Union's dependence on Russian gas.

The geopolitical effects of all this may be already being felt. In recent months, western officials have noticed a distinctly more friendly tone in their dealings with Russia. The Russians have signed a new nuclear arms reduction treaty with the US, accepted the idea of tougher sanctions on Iran and responded to the air crash on Russian soil that killed the [Polish president](#) and his entourage with unexpected openness and sensitivity.

Some western officials attribute this change in tone in the Kremlin to the US altering its position on missile defence; others credit the growing influence of President Dmitry Medvedev. But some think that Russia is already adapting its foreign policy in response to the sharp fall in the price of gas and the shift on world energy markets.

Of course, there are shale gas sceptics. Some veterans of the energy industry point out that there have been false dawns before – miraculous new sources of energy that disappointed in the end. It is true enough that most miracle cures fail – in energy, as in most other walks of life. But it is also true that predictions in the 1970s that the world was “running out” of fuel were disproved by a combination of technological advances and new discoveries – precisely the combination offered by shale gas.

Some environmentalists are also less than delighted by the shale gas revolution. There are concerns about environmental dangers posed to groundwater by the chemicals that are used to extract the shale gas – and such fears will only be heightened by the [oil spill](#) off the coast of Louisiana.

In the short term, increased use of gas will make it much easier for the US and Europe to cut emissions of carbon dioxide, because gas is much less polluting than coal. On the other hand, shale gas is still a fossil fuel and produces greenhouse

gases. For those environmentalists who dream of a future powered by windmills and solar panels, the dash for gas is a distinctly mixed blessing.

Of course, shale gas cannot be a complete answer to the west's energy security problems – far less to climate change. But in a world that is not short of bad tidings at the moment, shale gas is a welcome piece of genuinely good news.

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