Energy policy

Fracking fissures obscure the need to embrace green technologies

Within a few days, the UK shale industry's long-delayed bid to frack for gas beneath the English countryside is set to begin in earnest. Cuadrilla, the company currently leading the charge to use fracking technology in Britain, has confirmed it plans to start working on a well in Lancashire later this week. The response of anti-fracking protesters – some having already been given lengthy prison sentences for their protests against the company's operations – can be expected to be intense, vociferous and prolonged. One local businessman has already filed an injunction to try to further delay drilling, though it is unclear how long this manoeuvre will slow down Cuadrilla's plans.

Opponents of fracking point out that Britain is committed to halting the combustion of all fossil fuels as a means of generating electricity by the 2030s. After that, we will have to rely on only carbon-free technologies, such as solar, wind and nuclear plants, to provide power for our homes and factories. So why, ask green protesters, are we creating a new industry that will only make it easier for us to obtain gas and oil? Why bring these fossil fuels to the surface now? Why not invest more in green technologies, such as tide and wave power?

The response of the British shale industry has been straightforward. It says that as North Sea oil and gas continue to become more difficult and more expensive to bring ashore, gas drilled from rocks beneath our feet offers the nation a cheaper, more reliable alternative. Rather than increasing imports shipped in from Qatar, which now provides the UK with a third of its gas, it is surely better to seek the supplies close to home.

Companies also point out we still have more than a decade before we have to halt all fossil-fuel burning to make electricity. In fact, this goal is unlikely to be reached given the current government's failure to invest adequately in the technologies that will be needed to replace plants that still run on fossil fuel. We will need natural gas for a while yet.

It is hard to say which side is right, given the still-unproved status of fracking and its environmental impact. There are clear benefits for the economy but equally there are ecological risks that have yet to be assessed.

Fracking – or hydraulic fracturing, to give the technique its full name – is a process in which water, mixed with sand and chemicals, is injected down wells at high pressure to create fractures in shale beds and so release their reserves of gas and oil. Such techniques are inherently dangerous and environmentally damaging, say opponents who point to sites in the US where underground water reserves have become polluted in the wake of fracking operations. They also cite problems encountered at local test sites such as Preese Hall in Fylde, where fracking triggered earth tremors.

For its part, the fracking industry says that this seismic activity was tiny and that its operations will be safe and non-polluting. It also claims there are trillions of cubic feet of gas lying in deposits deep under the hills of north England. These could keep the nation supplied with natural gas for decades. In addition, they have pledged to drill in ways that are "transparently, safely and sensibly".

These promises are unlikely to convince its opponents. They are adamant in their disdain for the technique, particularly in Scotland, where the government has now imposed a moratorium on fracking because it says opposition to the shale oil drilling is simply "overwhelming".

It remains to be seen if the same opposition will be displayed in England. Most signs suggest it will be. There is a strong unease about interfering with the ground beneath our homes and fracking may find it very difficult to gain acceptance in England, no matter how useful it might be to the economy in the short term. In any case, its problems are no excuse for our continuing failure to invest in green technologies that in the end must replace plants that burn natural gas, no matter where it comes from. That is the real fight.