

Unconventional Gas: unsafe, unnecessary, unwanted



You've probably come across fracking in the news and wondered if the reality is as ugly as the word. Maybe you've heard about the new natural gas boom and wondered what shale gas and coalbed methane mean for our energy needs.

We are in the middle of a big push to exploit what's known as unconventional gas, as conventional sources run out. However, even though natural gas burns with lower emissions than dirtier fossil fuels like coal, the means of getting at these new sources of gas are far from clean.

There is a growing body of evidence from the USA and Australia, where the unconventional gas industry is far more developed, that there are inherent and unacceptably high environmental and health risks associated with coalbed methane and shale gas extraction.

What is unconventional gas?

Shale gas is a form of gas trapped inside shale rock, while coalbed methane is trapped inside coal seams. They are known as 'unconventional' because of the novel techniques - like fracking - used to extract the gas.

Hydraulic fracturing, or 'fracking', is a controversial technique often used to exploit unconventional sources of gas, such as shale gas and coal bed methane. It is an expensive process that is only economically viable when the price of fossil fuels are high. It involves drilling up to several kilometres deep and pumping gallons of water, and toxic chemicals under high pressure into the borehole to open up fractures and ease the flow of gas for extraction.

Unlike shale gas, coalbed methane extraction doesn't always involve fracking – at least not in the early years of a development. Instead, coal seams are de-pressurised by pumping out large volumes of water. But as gas flow starts to decline after a few years, wells are often fracked to increase productivity. In Australia the industry estimates that up to 40% of coalbed methane wells end up being fracked.

However, there are serious environmental problems associated with coalbed methane extraction regardless of whether fracking takes place.

Unsafe

In addition to the highly toxic chemicals used in drilling muds and fracking fluids, drilling and fracking processes can mobilise harmful chemicals and radioactive substances naturally occurring in the coal and shale, which can contaminate groundwater and soil, and leak into the atmosphere with consequences for public health and the climate.

Communities in Australia are already suffering from symptoms associated with exposure to these chemicals, including respiratory problems, and a growing body of research points to serious longer-term impacts such as birth defects. Many of the naturally occurring and introduced chemicals are known carcinogens.

Many of these risks apply to coalbed methane whether or not fracking takes place. In fact, because coalbed methane is significantly shallower than shale rock certain risks, such as groundwater contamination, are increased, and fracking simply exacerbates these impacts.

Even if it was safe to extract this gas (and it is increasingly clear that it isn't), if we want to prevent the worst impacts of climate change it isn't safe to burn it. Investing in unconventional gas now will lock us into to dangerously high greenhouse gas emissions and make it extremely difficult to meet our legally binding carbon reduction targets in 2050.

Unnecessary

Scotland has an abundance of renewable energy resources: 25% of Europe's offshore wind; 25% tidal; and 10% wave potential. Independent research demonstrates that Scotland could meet all our electricity needs from renewable sources and phase out fossil fuel generation by 2030 AND have some left over to export.

The renewables industry in Scotland is a valuable growth area, with over 12,000 jobs last year, and many thousands more in the pipeline.

However, the International Energy Agency and other leading commentators such as Deutsche Bank warn that a dash for unconventional gas could prove a serious distraction from badly needed investment in clean renewable energy and energy efficiency, and see us locked into expensive, carbon-intensive infrastructure for years to come.

Unwanted

Communities around the world and here in Scotland faced with the unconventional gas industry are increasingly aware of its dangers and are resisting it.

France was the first country in Europe to ban hydraulic fracturing and other countries and states have followed suit with moratoriums and bans. In New South Wales the Government has introduced 2km buffer zones between communities and coalbed methane drilling in response to the widespread 'Lock the Gate' coalition.

- France: First country to ban March 2011
- Denmark: Moratorium on fracking at least until the end of 2013
- Germany: Moratorium in Northrhine-Westphalia, Lower Saxony considering the same
- Bulgaria: Ban since January 2012
- Czech Republic: Moratorium in May 2012 considering outright ban
- Netherlands: Moratorium on unconventional fossil fuel drilling
- Spain: Cantabria banned fracking April 2013, La Rioja region considering the same
- Switzerland: Moratorium on fracking in the canton of Fribourg 2011
- Canada: Quebec introduced a moratorium on fracking pending environmental review
- USA: Vermont banned fracking in May 2012, and New York passed 3rd moratorium in 2013

- New South Wales: Ban on any coal seam gas activity within 2km of residential areas, Feb 2013.
- Ireland: 2-year moratorium in March 2013

Our campaign

We are calling on the Scottish Government and Parliament to ban all unconventional gas and fracking. Both the precautionary principle and climate science demand that we leave this gas in the ground.

However, we are also working to ensure that if the industry does go ahead, the regulatory framework is as rigorous as possible in protecting communities. That's why we are lobby the Scottish Government to ensure that Scottish Planning Policy requires a minimum separation of 2km between communities and gas drilling operations.

What you can do

Stay in touch! Sign up for regular email updates about our fracking and unconventional gas campaign.

Scotland's new Planning Policy is due to be published on 23 June - email the Planning Minister and ask him to set a minimum distance between communities and gas drilling sites <http://act.foe-scotland.org.uk/lobby/mindist>

The Independence Referendum in September is not only important because of the big question at stake, but the run up to it provides a crucial opportunity to influence Government on the issue fracking and unconventional gas. Would the promise of a Frack Free Scotland swing your vote one way or the other? If so, let them know! Contact your MSPs and ask them to work for a ban now.

11 October 2014 is Global Frackdown Day III – put the date in your diary and watch this space for more info.

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