

Unconventional Gas: unsafe and unnecessary

Parliamentary Briefing ahead of the Energy debate - 25th February 2015

Key points

- unconventional gas has no useful role to play in Scotland's future energy strategy
- there will be no commercial supply of unconventional gas any time soon
- Unconventional gas would
 - not reduce fuel bills
 - make it very hard to meet climate targets
 - threaten investment in renewables
 - risk unacceptable local health and environmental impacts
- underground coal gasification is the most risky form of unconventional gas and should be included in the current moratorium

Will unconventional gas keep the lights on ?

In the past, parts of the industry and the UK Government have made extravagant claims about plentiful unconventional gas lowering bills but the reality is that the resource is small, it will be expensive to extract and it will take years, if ever, to produce any gas at a commercial scale.

Fracking company Cuadrilla have said that in the North of England, with much more shale gas than the whole of Scotland, they will have to drill 40 test wells over five years just to work out if there is enough gas to make it worth setting up a commercial industry. They have also said that unconventional gas will make no difference to gas prices in the UK.

Similarly, in the Scottish context, Robert Gatliff, Director of Energy and Marine Geoscience for British Geological Survey and a member of the Scottish Government's Expert Scientific Panel on Unconventional Gas, said on Radio Scotland last month that we have **"a long way to go before we know whether there is any significant commercial production possible."**

Unsafe

New York State has just banned fracking, after a two-year moratorium to look at health impacts. Many other countries and states have temporary or permanent bans on some or all of unconventional gas, including France, Ireland, the Netherlands and Bulgaria.

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

Conservative estimates put well failure on newly drilled wells – which can result in leakage of methane and toxins into air and water – at between 5-9%, and at upwards of 50% during their lifespan.

Communities in the USA and Australia living in and around gas fields report symptoms associated with exposure to fracking and drilling chemicals, including respiratory problems, nausea and rashes. A growing body of research points to serious longer-term impacts such as low birth weights and birth defects. Many of the naturally occurring and introduced chemicals are known carcinogens.

Even if it were safe to extract this gas, if we want to prevent the worst impacts of climate change it is not safe to burn it. Analysis by the Carbon Tracker Initiative shows that in order to have a reasonable chance of staying below 2°C warming, 80% of the world's proven fossil fuel reserves must not be burned unabated. **Investing in unconventional gas would lock us into dangerously high greenhouse gas emissions making it extremely difficult to meet our legally-binding carbon reduction targets between now and 2050.**

Unnecessary

Scotland has an abundance of renewable energy resources: 25% of Europe's offshore wind; 25% of the tidal; and 10% of the wave potential. Not only is Scotland on its way to meeting its 100% renewable electricity consumption by 2020 target, but independent research demonstrates that Scotland could meet all our electricity needs from renewable sources, phase out fossil fuel generation by 2030 and have excess to export.

The renewables industry in Scotland is a valuable growth area, providing over 12,000 jobs. 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.

The moratorium – two out of three is not good enough

Shale gas, coalbed methane and underground coal gasification (UCG) are known collectively as 'unconventional' because of the novel techniques, such as horizontal drilling, de-pressurising and hydraulic fracturing, used to extract the gas. UCG involves setting light to underground coal seams.

The moratorium in Scotland announced last month will look at gaps in regulation and concerns over health impacts raised by the Scottish Government's Expert Scientific Panel on Unconventional Gas in their final report last summer. However, it will only examine shale gas exploration and coalbed methane.

UCG was included in the Scottish Labour's proposals for a 'triple lock' on unconventional gas, but it is not included in the Scottish Government's moratorium, despite Robert Gatliff of BGS calling it "completely experimental" and, compared to shale gas fracking and coalbed methane, **"a lot more risky."**

This week one of the few UCG test schemes anywhere in the world was shut down following a decision by the Queensland government to refuse any commercial scale development because of concerns over impacts on groundwater and the environment. In Scotland, two companies are developing proposals for UCG, in the Forth and the Solway.

Friends of the Earth Scotland believe that UCG deserves as much, or even more, scrutiny as the other two techniques, and should be included in the current moratorium.

For further information, see

<http://www.foe-scotland.org.uk/fracking>

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