New figures should prompt cautious optimism about shale gas

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Many in the UK are optimistic about the prospects of exploiting shale gas, reserves of which the latest figures suggest are larger than previously thought. **Samuela Bassi** *and* **Chris Duffy** *caution about being over-enthusiastic about the impact fracking will have on energy prices and jobs as only 4 per cent may be technically recoverable.*

Long awaited government figures, showing that the amount shale gas held in a rock formation in northern England may be larger than first thought, finally saw the light of day on 27 June, prompting a gush of hyperbole from some parts of the media about the potential effects it could have on energy prices and the economy. But, as ever with shale gas, the facts are rather different from the headlines.

Last year, the British Geological Survey indicated that the UK might have as much as 150 billion cubic metres of recoverable shale gas. The new figures produced suggest that the Bowland-Hodder Unit alone in northern England may have between 23.3 and 64.6 trillion cubic metres of shale gas in place, with a central estimate of 37.6 trillion. This compares with an estimate earlier this month by the United States Energy Information Administration that the volume of UK shale gas in place is 17.6 trillion cubic metres. It is very uncertain how much of this will be technically and economically recoverable, and the BGS, understandably, has not yet attempted to make a new prediction. However, the United States Energy Information Administration suggests that only about 4 per cent, or 736 billion cubic metres, of UK shale gas in place may be technically recoverable.

There appears to be much confusion about the different types of estimates. The amount of gas in place, sometimes called resources, is the entire volume of gas contained in a rock formation, regardless of the ability to extract it. Technically recoverable resources refers to the volume of gas considered to be recoverable using currently available technology. Proven reserves is the volume of technically recoverable resources that are demonstrated to be economically and legally producible under existing economic and operating conditions.

These higher estimates are good news for the UK, if the shale gas can be extracted safely and economically. It will increase the UK's energy security and create new jobs. However, these new BGS figures do not indicate that there is enough shale gas to stop the UK being dependent on imports of natural gas, and so fuel prices for households and businesses will not automatically fall.

In terms of the UK's climate change targets, more shale gas could also be beneficial if it is used to generate electricity instead of coal, as we pointed out earlier this year in our joint report with Imperial College London. The UK's greenhouse gas emissions increased by 3.5 per cent between 2011 and 2012, primarily due to a big rise in the amount of coal that was burnt in power stations. Ironically the increase in UK coal use is mainly because of higher exports by the United States as a result of its shale gas boom. Beyond 2030, the UK's power sector will need to be radically decarbonised, so there will only be widespread use of gas-fired power stations if they are fitted with carbon capture and storage technology.

These latest figures are promising, but as Ed Davey, the Secretary of State for Energy and Climate Change, warned last year, the UK Government "would not be doing consumers any favours by placing all our bets on shale gas".

Note: This article gives the views of the author, and not the position of the British Politics and Policy blog, nor of the London School of Economics. Please read our comments policy before posting.

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