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Dear Editor

I feel I must correct some of the assertions made by Andrew Wood, who appears to buy the argument that UK engineers are incapable of safely producing unconventional gas ('Crack down on the Frackers', NCE July 2016, p. 16).

Mr Wood states that "methane must surely be the very last fossil fuel that we consider exploiting". The reverse is in fact the case. With the greenhouse gas emissions from gas combustion typically less than half those from coal, and nearly as much less than from oil, natural gas is the most hydrogen-rich of the fossil fuels and therefore the best of them to use if you care about climate change. It is failure to recognise this that has led to a reversal in the trend of carbon emissions in Germany, as it rushes to build new lignite-fired power stations (the very worst form of coal!) to keep their lights on as they reject unconventional gas and accelerate the close-down of nuclear.

The Joint Royal Academies' report of 2012 is only four years old, not "four years out of date" as Mr Wood claims: subsequent analyses (e.g. Scottish Government Expert Panel in 2014) have confirmed its findings. The Ryedale planning permission is simply to re-stimulate an existing well – a routine task that would previously have been done without further ado until the tightening of rules following the Joint Royal Academies' report. Not a single planning or environmental regulation has been eased for fracking in the UK, contrary to Mr Woods' claims; quite the contrary. As my own research has shown, we have committed to regulate fracking-induced seismicity 40,000 times more strictly than quarry blasting.

The reality is that 82% of UK households rely on gas for heating, and it is also the lowest-carbon option for generating power when the wind doesn't blow. If the UK government had any strategy to wean us off gas use, without putting fuel poverty through the ceiling, we might be able to afford to reject indigenous unconventional gas out of hand. Without any such strategy, continued gas use will simply mean importing more, at a far greater carbon footprint. That makes no sense whatsoever. So I agree, climate change needs to be sky-high on civil engineers' agendas; but we need to approach the issue with a robust, dispassionate and numerate analysis of alternatives.

Best wishes

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