PUBLIC PERCEPTION OF SHALE GAS EXTRACTION IN THE UK: IS THE BALCOMBE EFFECT TAKING HOLD?

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Introduction

The University of Nottingham survey of public attitudes to shale gas extraction in the UK has been running since March 2012. The survey has tracked changes in awareness of shale gas, and what they believe to be the environmental impacts of its extraction and use as well as its acceptability as an energy source. Here we present the highlights of the 8th University of Nottingham survey run between January 22nd and 24th 2014.

January 2014 Summary

The January 2014 survey confirms that some of the apparent turn against fracking for shale gas in the UK that was seen in the September 2013 survey (after the protests at Balcombe) has continued. The prospect of the contamination of drinking water has been a key concern of the protestors, and the negative rating for shale gas on water contamination has increased from -10.5% to -16.4% in the January survey, reversing a declining trend seen between March 2012 and July 2013. The same is true of whether respondents see shale gas as a 'clean' form of energy overall, with the negative score for shale gas on this measure increasing from -9.9% to -12.7% between September 2013 and January 2014. Although respondents do see shale gas as a 'cheap' form of fuel, the trends have also moved away from shale on this indicator which in July 2013 stood at +33.4%, but had fallen to +26.3% in September and is now +22.7%. This suggests that the 'turn against fracking' indicated in September was not a 'blip' and may represent an increasing sense of unease with the environmental implications of fracking techniques amongst the UK public. The trend is also seen in the more general question of whether fracking should be allowed in the UK, where a 39.5% differential in favour of shale gas extraction in July 2013 has been pared back to +26.7% in January 2014.

For the first time, the January 2014 survey asked the public what they thought of the proposal that energy companies pay a 'community benefits' charge to local communities where fracking takes place. Given a range of options, the majority of people thought that the payments would be to 'get the community's support for fracking in their area' rather than to bring 'benefits' to the community, which may indicate that such payments are seen above all as a means of 'buying off' potential local opposition.

The Surveys

The January 2014 is the largest survey we have undertaken thus far with 3751 respondents. The surveys which are conducted via YouGov are nationally representative and are weighted. The total number of people that have responded to the surveys has ranged from between 2126 and 3751 (Table 1) with the total number of people surveyed over the duration of the study being more than 25,000.

Date of survey	# of respondents
18th-20th March 2012	2784
26th-30th April 2012	2791
17th-19th June 2012	2687
13th-14th December 2012	3530
14th-18th March 2013	3697
30th June-2nd July 2013	2126
20th-24th September 2013	3688
22nd-24th January 2014	3751

Table 1. The dates and number of respondents to the eight University of Nottingham surveys run via YouGov

The survey starts by asking respondents the following:

This is a fossil fuel, found in sedimentary rock normally more than 1000 metres below ground. It is extracted using a technique known as hydraulic fracturing, or 'fracking'. Is this fossil fuel:

a) Boromic gas

b) Coal

c) Xenon gas

d) Shale gas

e) Tar-sand oil

f) Don't know.

The important word association in this question is the term 'fracking',[1] which is almost always referred to in reports and media articles about shale gas. In our March 2012 survey only 37.6 % of respondents correctly identified shale gas from the list of real and imaginary fossil fuels. Over the last two years the percentage of people able to identify shale gas has risen significantly and in the January 2014 survey was just under 66%. This said the level of recognition has changed remarkably little since December 2012 when it stood at 61.5%, which is surprising especially given the fact that there was significantly more media focus on shale gas in 2013 than in 2012 (Fig. 2). Interestingly in all of our surveys men are much more likely to identify shale gas than women with the level of recognition in our March 2012 survey being 50.3% for men and 26.4% for women. In January 2014 the figures were 74% and 57.7% respectively.

Respondents who did not identify shale gas exited the survey, while those who did were asked a series of questions about whether they associated shale gas with earthquakes, water contamination, being a clean fuel and being a cheap fuel. We also asked whether they associated shale gas with lower or higher greenhouse gas emissions. In the September 2013 survey an additional question about UK energy security was also added. This two-stage process means that questions about how people perceive shale gas are only answered by those people who have heard of, and may have developed a view about, this energy source. Figures 3 to 8 show the UK level results for these questions for each of the eight surveys.

[1]Also spelt fracing/fraccing

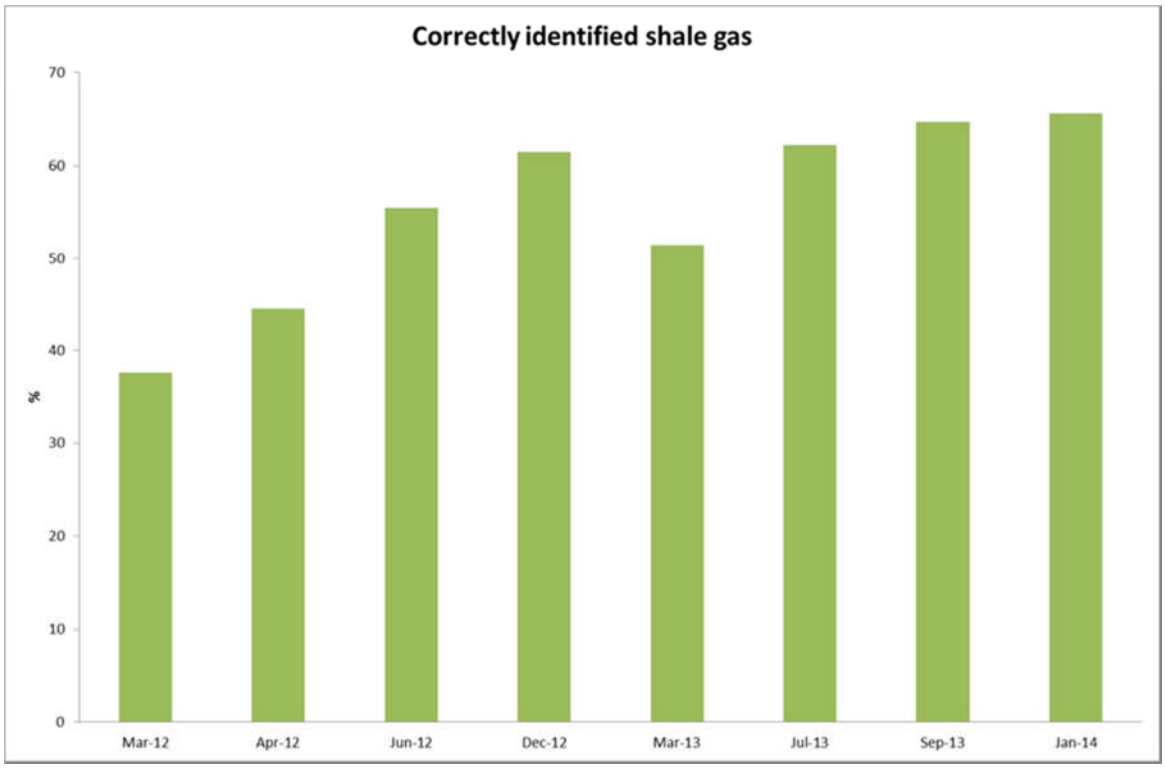


Figure 1. Shale gas recognition in the UK: March 2012 – January 2014.

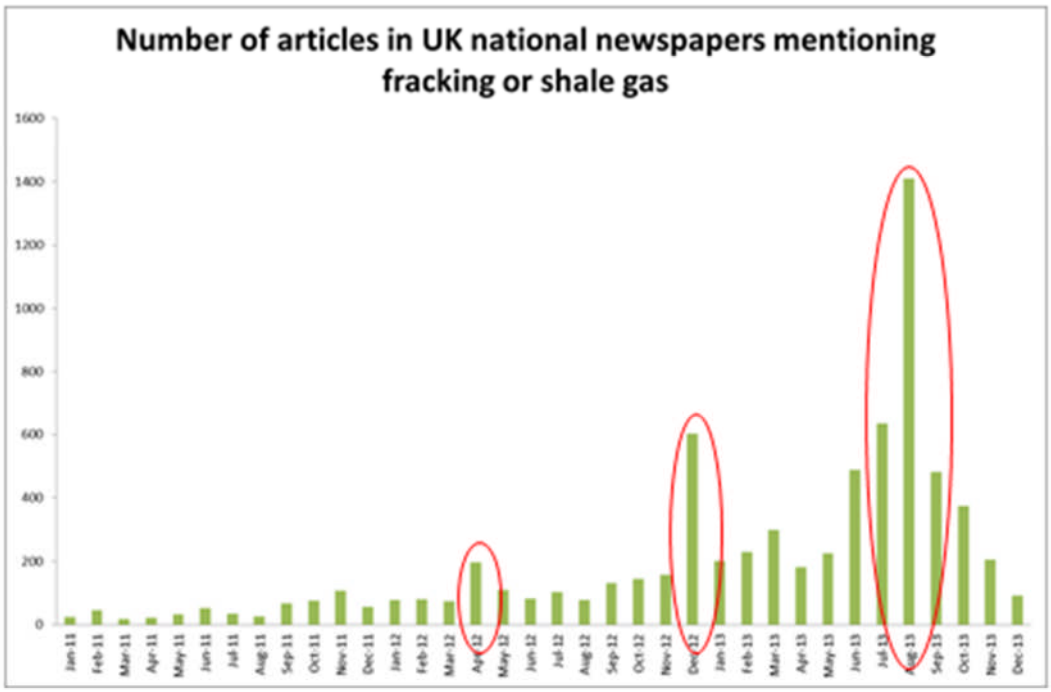


Fig. 2 The number of mainstream UK national newspapers mentioning shale gas or fracking in 2012-13. The three peaks noted relate to 1) The release of the Preece Hall report; 2) the lifting of the moratorium on fracking and 3) the anti-fracking protests at Balcombe. The number of articles in December 2013 relate to the first 10 days of the month only.

Shale gas and earthquakes

The possible link between fracking for shale gas and earth tremors has triggered considerable concern and is viewed by some as a potentially dangerous and damaging impact of shale gas exploration. Two small earthquakes in April and May 2011 in the Blackpool area (2.3 and 1.5 respectively on the Richter Scale) close to where Cuadrilla Resources were fracking for shale gas were widely reported in the media and led to the suspension of fracking at the site pending further investigation. The release of the Preece Hall report in April 2012 and an acknowledgement by Cuadrilla Resources that their activities were the likely trigger for the earth tremors was also widely reported (Fig. 2). It is thus not surprising that the majority of people who correctly identified shale gas also considered it to be associated with earthquakes, with the number of people making this association being high throughout. However, in recent months this association does appear to be declining and there has been a notable decrease in the differential between those that associated shale gas extraction with earthquakes and those who do not. So while 50% of people who correctly identified shale gas associated its extraction with earthquakes in January 2014, the differential now stands at +17.7%, the smallest differential seen in the survey so far and down significantly from a peak of +58% in April 2012.

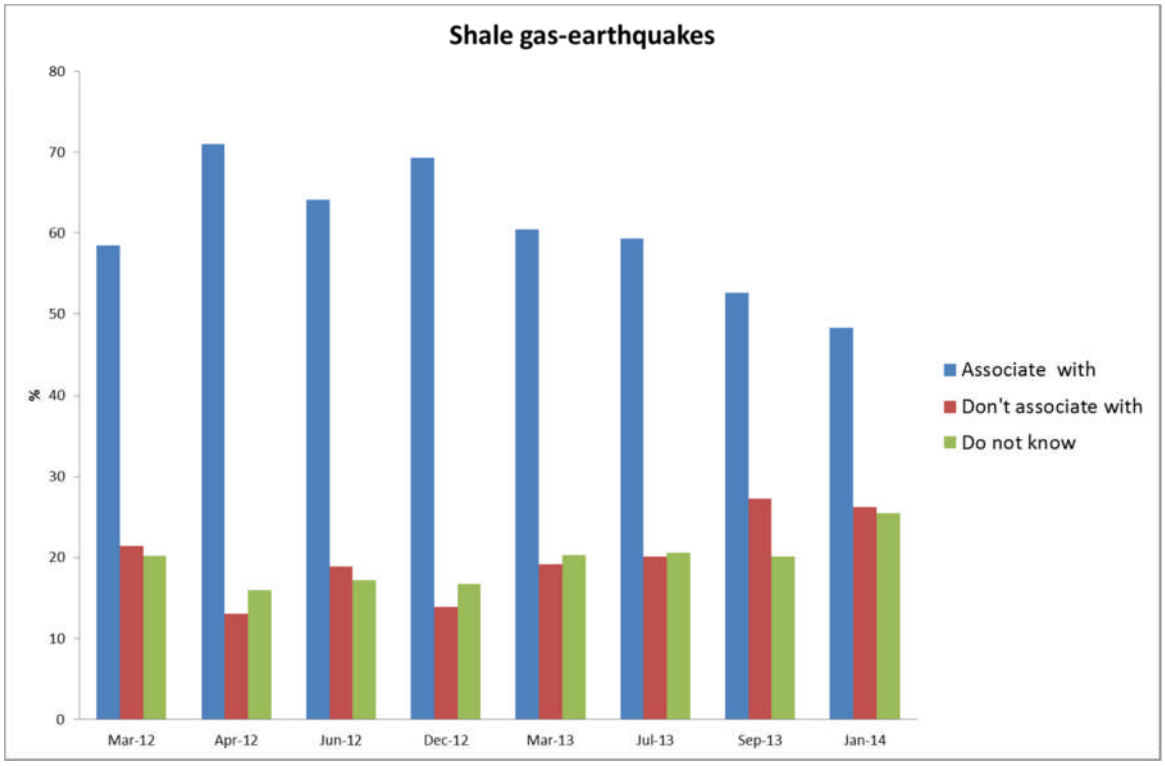


Figure 3. The association between shale gas and earthquakes in the UK: March 2012-January 2014.

Contamination of drinking water

There are considerable concerns that the extraction of shale gas could result in the contamination of drinking water sources either by chemicals used in fracking fluids and/or by methane escape as a result of the fracking process itself. Again, the issues and debates around drinking water

contamination have been widely reported in the media (often with reference to the controversial film *Gasland*)[2] and a large number of respondents to our surveys associate the two together. This said, we have seen significant changes in the public's opinion on this issue over the last two-years. In March 2012 44.5% of respondents associated shale with water contamination, and only 23.9% did not. In July 2013, immediately prior to the Balcombe protests the respective figures were 35.2% and 29.8%. This gives a move in ratings (if we take water contamination to represent disapproval) from -20.6% to -5.4% over this period (Fig. 4) suggesting that concerns about the possible contamination of water supplies were declining. Immediately after the protests at Balcombe, where much of the debate focused on potential water contamination the negative differential increased to -10.5% and four months later has risen further to -16.4%.

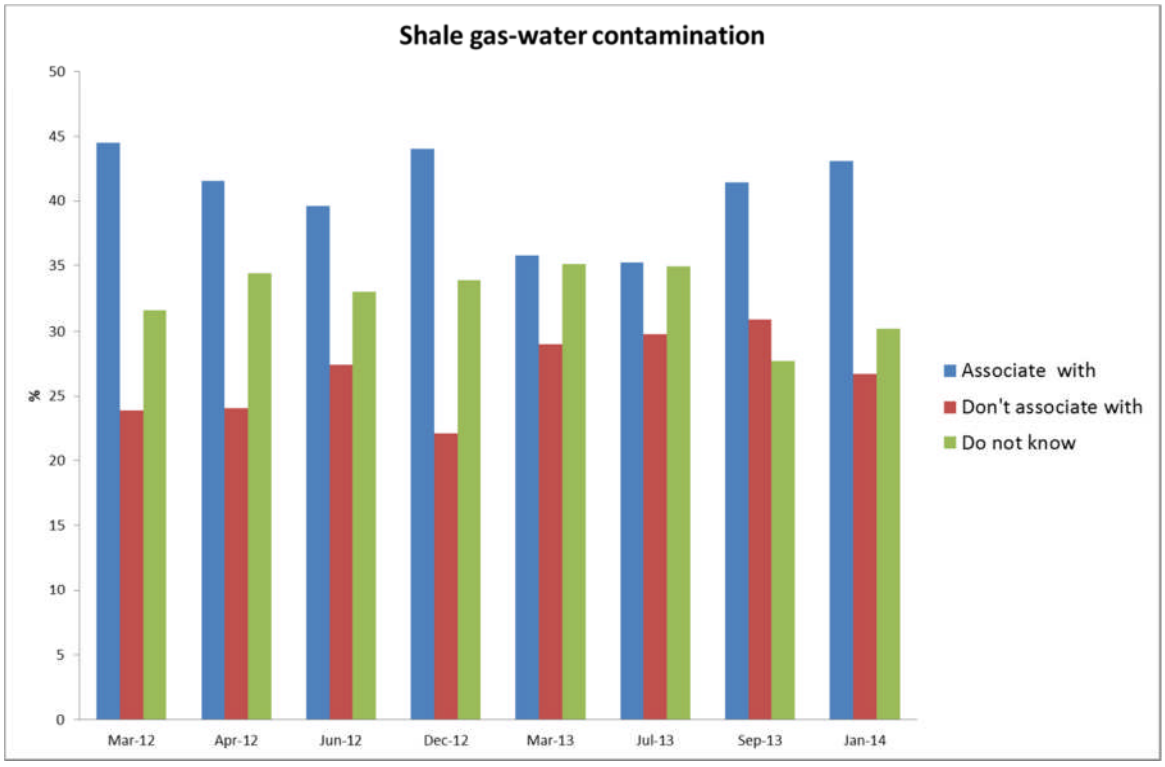


Figure 4. The association between shale gas and water contamination in the UK: March 2012-January 2014

Is shale gas a clean energy?

Despite industry claims that shale gas is a clean energy resource especially compared to other fossil fuels such as oil and coal, the British public have not been so convinced. In our first survey in March 2012 only 25.3% considered shale gas to be a clean energy source, compared with 44.8% who did not, giving a negative rating of -19.5%. But the UK public seemed to be shifting its opinion, and in the July 2013 survey a third (33.5%) of the respondents who recognised shale gas considered it to be a clean energy source compared to 36.5% who believed the opposite, leaving an negative rating of -3% (Fig. 5). Post-Balcombe the differential rose to - 9.9% and now stands at -12.7% , giving an almost 10% negative shift. Although the negative differential is not as great as in our first survey, it

[2] http://www.gaslandthemovie.com/

does appear that the trend towards greater acceptance of shale gas as a clean energy source is now reversing.

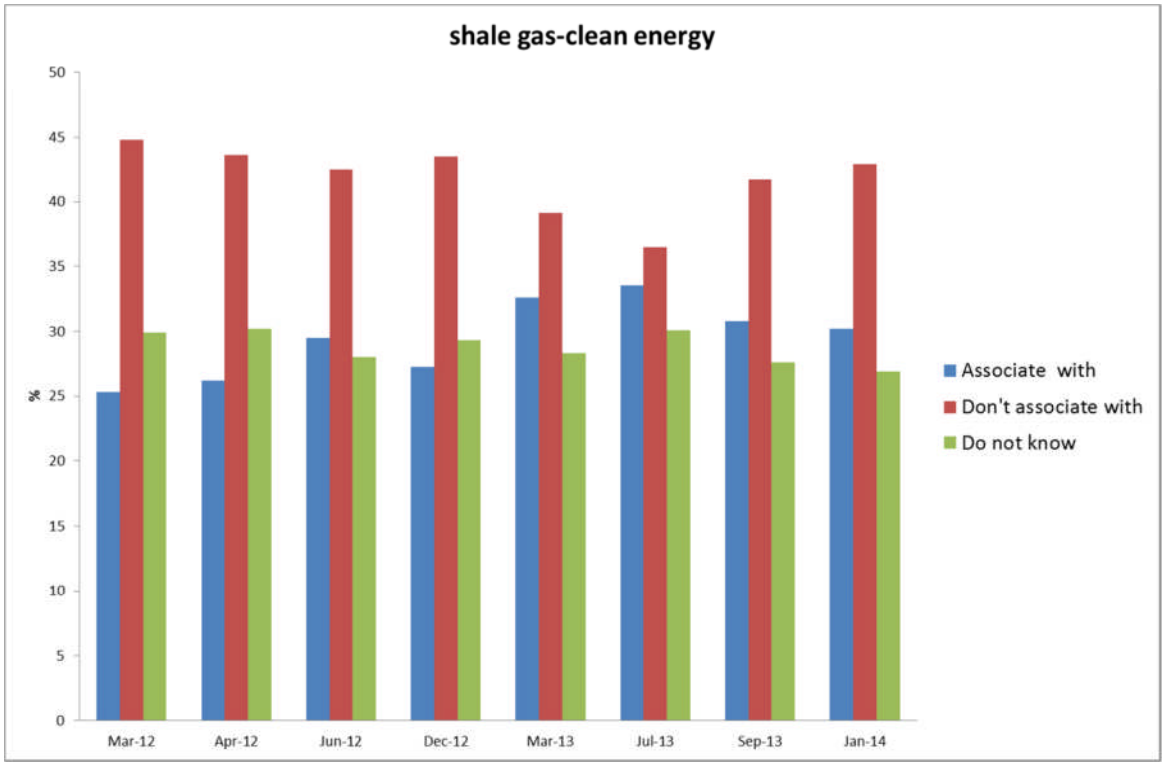


Figure 5 : The association between shale gas and clean energy in the UK: March 2012-January 2014

Is shale gas a cheap energy resource?

One of the potentially attractive features of shale gas is that, compared with other sources of energy, it may be seen as cheap at the point of sale and initially much was made of this fact by various commentators on the subject. Although such views have been repeatedly challenged, particularly in the context of European energy markets, at the January 2014 World Economic Forum at Davos the PM David Cameron reiterated the economic benefits that shale gas could bring to the UK noting that fracking was already 'flooring' gas prices in the US. It would appear that such views have resonated with the British public and the proportion of people who associated shale gas with being a 'cheap fuel' rose in each of the first six surveys from 40.5% in the March 2012 survey to 55% in July 2013 (Fig. 5), and the positive rating for shale (the 'do associate' minus the 'don't associate') in July 2013 was +33.4%, up from +11.4 % in March 2012. But this reversed after the Balcombe protests falling to +26.3% in September 2013 and in January 2014 stands at +22.7%. But notwithstanding recent shifts, the proportion of respondents who consider shale gas to be cheap fuel is approximately 10 percentage points higher than at our first survey.

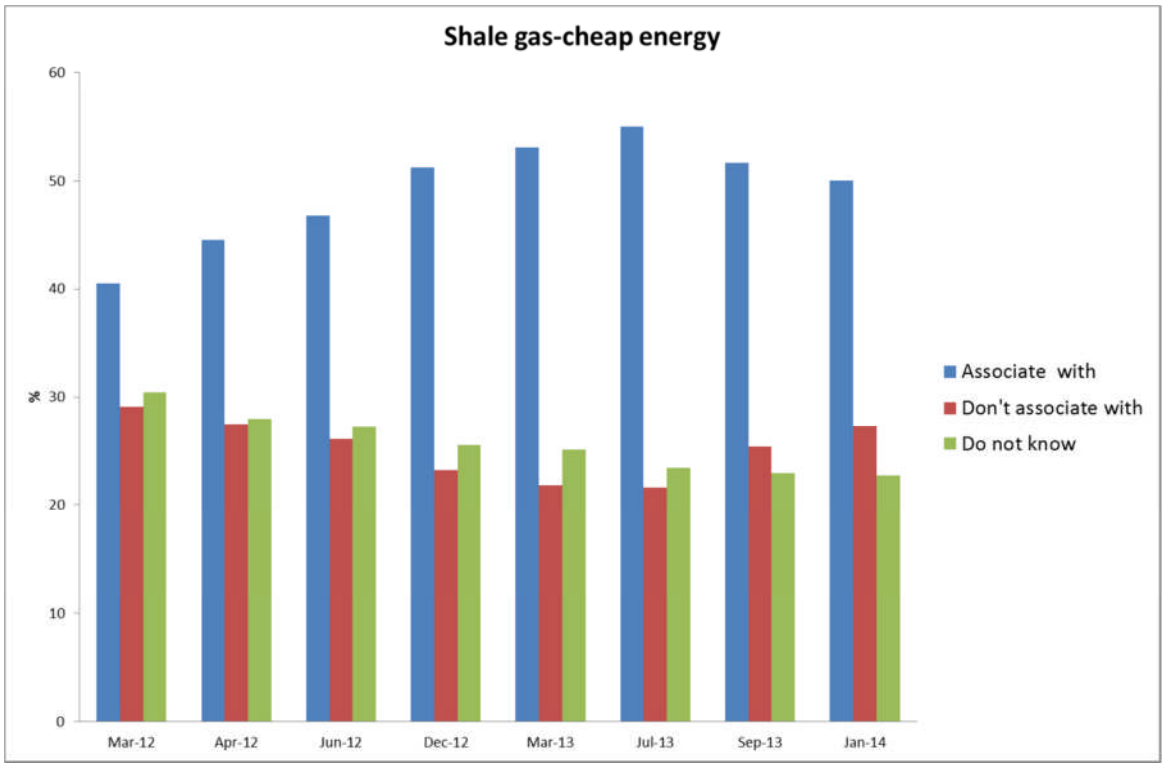


Figure 6: The association between shale gas and cheap energy in the UK: March 2012-January 2014.

Will shale gas help the UK's energy security?

The issue of energy security for the UK has been much debated and one of the arguments that has been made by both government and energy companies alike is the role that indigenous shale gas could play in the UK's energy security. Because this issue has become increasingly important in debates around the shale gas issue, we decided to asked respondents whether they associated shale gas with energy security. In September 2013 of the approximately 65% people who correctly identified shale gas in our gateway question 58.8% stated that they associated shale gas with energy security compared to just 20.5% who did not, giving a positive association of +38.3 %. In January 2014 this differential has increased further to + 41.9%.

Shale gas and greenhouse gas emissions

The survey respondents were also asked about their views on whether they considered the use of shale gas would result in lower or higher greenhouse gas emissions (GHG). In all eight surveys a plurality of respondents stated that they don't know whether shale gas had a positive or negative impact on GHG emissions, with the figure varying between 43% and 48% (Fig. 7). But significantly, while almost an equal number of respondents in our first survey stated that shale gas would result in either lower or higher GHG emissions, there has been a subtle shift in people's views with an increasing proportion of respondents believing that shale gas will result in lower GHG emissions (Fig. 7). This remains true post-Balcombe although the differential has decreased from 13.5% in July 2013 (the maximum over the surveys thus far) to 9.8% in September 2013 and currently stands at 10%.

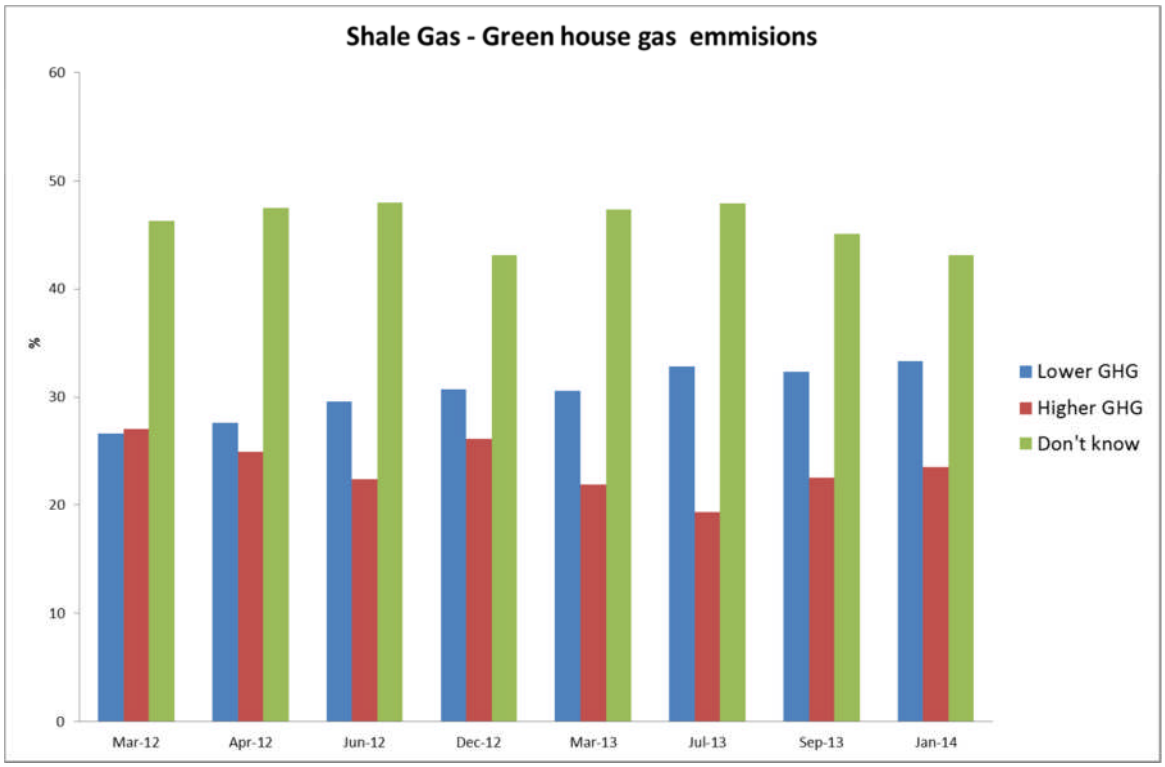


Figure 7: The association between shale gas and greenhouse gas emissions in the UK: March 2012-January 2014.

Should shale gas exploration be allowed in the UK?

The public have also been asked whether shale gas extraction in the UK should be allowed, a question intended to capture people's 'all-things considered' judgement on shale. This question was first asked in June 2012, with 52.6% in favour and 27% against (+25.6%); in July 2013, these figures stood at 58.3% and 18.8% (+39.5%). Post-Balcombe we saw a decline in 'yes' and an increase in 'no' responses with the differential in September 2013 being +30.2%. This figure has fallen further and in January 2014 stands at +26.7%, nearly 13 percentage points lower than July 2013 and nearly at the level we first saw when we asked this question in June 2012. So while still a positive figure with a majority of the population in favour of shale gas extraction, there has been a noticeable drop in approval ratings since July 2013 (Fig. 8).

Should energy companies compensate communities where they extract shale gas and how is this perceived by the British public?

The suggestion that communities affected by fracking for shale gas should receive compensation has been mooted for some time. George Osborne, Chancellor of the Exchequer, announced generous tax breaks for fracking companies and financial incentives for local communities in his March 2013 budget and on a recent visit to Gainsborough the PM made it clear that communities would benefit financially from shale gas activities in their areas and announced that local councils that approved fracking would be allowed to keep 100% of the business rates collected from drilling schemes - double their usual 50 per cent. Cameron's announcement which came on the same day of the announcement that the French energy giant Total was entering the UK shale gas business has attracted considerable attention with some commentators highlighting potential community benefits, while others including Greenpeace have condemned the move as a "naked attempt to

bribe councils". Given the recent attention on compensation issues we include two new questions on the issue in our January 2014 survey.

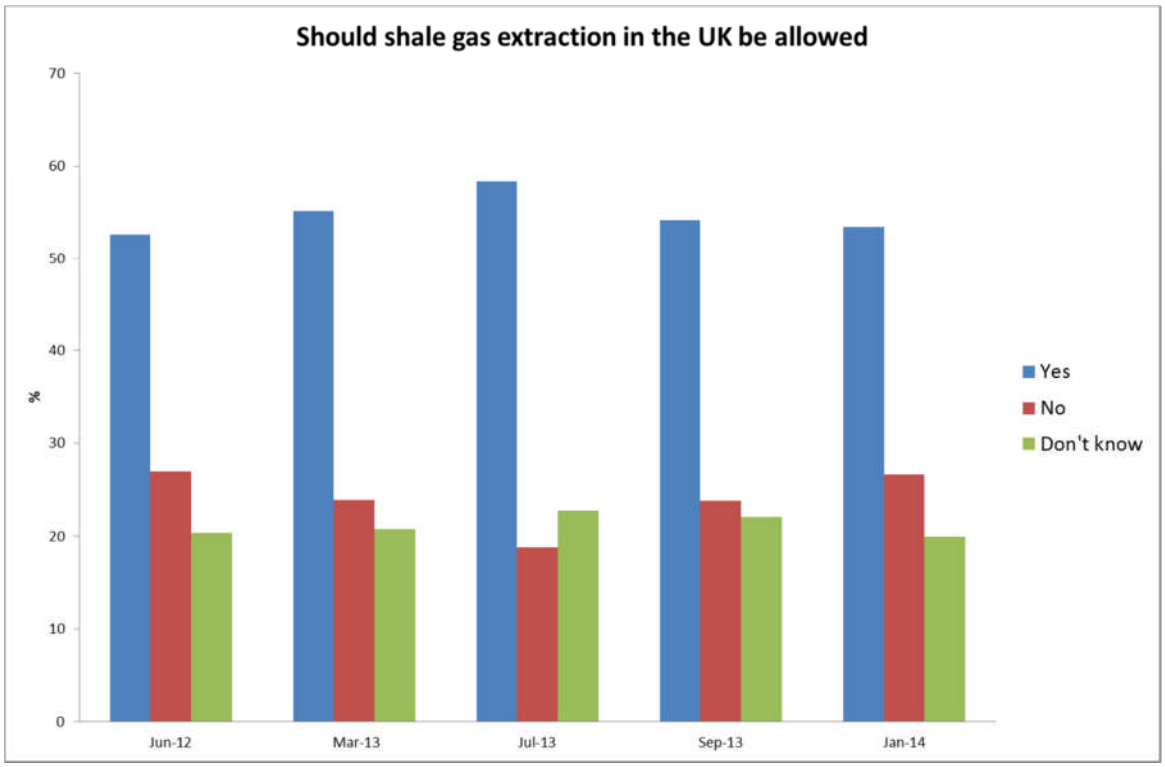


Figure 8: Should shale gas extraction be allowed in the UK? June 2012 – January 2014

Firstly we asked whether energy companies should pay compensation to communities directly affected by fracking. The response was overwhelming positive with just over 86% of respondents saying that they should and only 6% believing that they shouldn't. We then went on and asked respondents what they think is the main reason that energy companies are paying compensation and gave them a number of options to consider (Fig. 9). Significantly the British public are largely unconvinced with the arguments that compensation is to provide benefits to the community with only 13.1% believing this to be the case. The majority, 57.7%, of respondents are of the view that payments are to get the community's support for fracking. Respondents were generally of the view that payments were not a legal obligation nor a tax break for energy companies while just over 41% believed that payments are to make up for the negative effects of fracking (Fig 9).

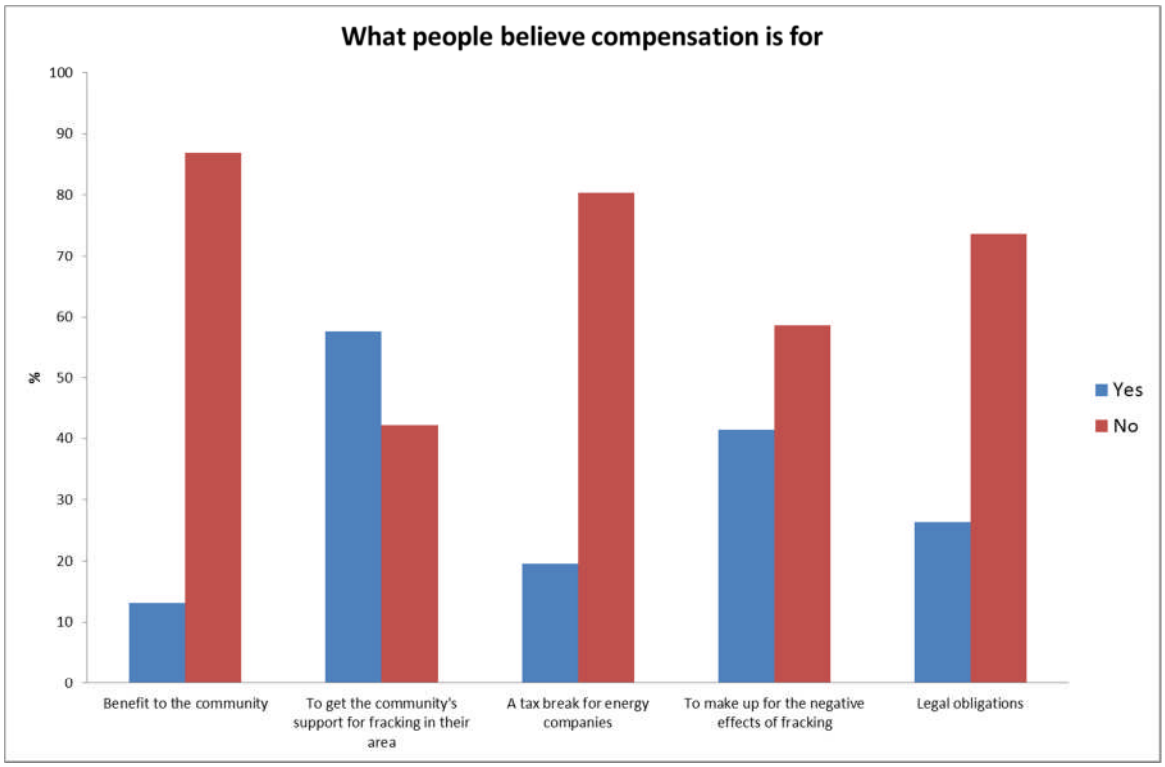


Figure 9: What do you believe are the reason that energy companies are paying compensation?

Summary of the survey results

The January 2014 survey confirms that after a prolonged period when the UK public appeared to be warming to shale gas that opinion is shifting in the opposite direction, with the apparent turn against fracking for shale gas, seen in the September 2013 (post-Balcombe) survey, continuing. This suggests that the 'turn against fracking' seen in September was not a 'blip' and may represent an increasing sense of unease with the environmental implications of fracking techniques amongst the UK public. Significantly, the UK public are not convinced that that the payment of compensation to communities in areas where fracking will take place represent a community benefit but more of an attempt to 'get the community's support for fracking in their area', which may indicate that such payments are seen above all as a means of 'buying off' potential local opposition.