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Scotland**

Dirty frackers, dodgy numbers

INEOS and the 'Shale Belt' of Scotland

April 2015

Since Grangemouth operator INEOS acquired its first shares in domestic shale gas licences last summer, it has made clear its intention to become the biggest player in the UK fracking industry. Talk of large sums of money to be invested in the emerging industry along with jobs and financial incentives for local communities might seem alluring in times of economic difficulty. However setting aside the question of whether money and jobs can ever compensate for contaminated water, air pollution, risks to public health and a degraded environment, on closer inspection, some of the numbers INEOS have been throwing around are not quite what they may seem...

INEOS's entry into the shale gas industry

In summer 2014 Grangemouth operators INEOS secured £230 million in UK Government loan guarantees to build a storage tank that would enable it to import shale gas from the USA, as part of a 'long-term survival plan' for the supposedly-troubled plant. The previous year INEOS had threatened to close the petrochemicals plant following a pay dispute with the Unite union.¹

Shortly after securing the loan guarantee INEOS set about acquiring shares in existing shale gas licences: first a 51% share in a key shale deposit in Petroleum Exploration and Development Licence (PEDL) 133, then owned by Dart Energy; next an 80% share in Reach CSG's PEDL 162; and most recently a full working interest in PEDL 133 along with shares in other IGas-owned licences in Northern England.² PEDL 133 covers an area of 329km² at the mouth of the Firth of Forth, and PEDL 162 covers 400km² in N.Lanarkshire.

A fracking big giveaway?

In November 2014 INEOS made a big deal over an announcement that *if* it were awarded all of the licences it had applied for in the UK Government's 14th onshore licensing round, it would become the biggest fracker in the country. INEOS also stated it would invest *up to* £640 million in fracking if these licences were granted.³ This followed claims of a '£2.5 billion giveaway' – 6% of estimated profits – to what the company likes to call 'Shale Gas Communities'.⁴

But what do these numbers really mean for communities living in INEOS licence areas?

The text in italics below is taken from INEOS's announcement 28 September 2014 of its '£2.5 billion giveaway' plans, and its 17 March 2015 announcement of a shale gas information programme (underlining our own, for emphasis). Our interpretation follows in bullet points.

"INEOS estimates it will give away over £2.5 billion from its new Shale gas business."

- Presumably the £2.5bn figure is linked to the following highly misleading statement:

"The single Marcellus shale gas field in the USA produces over twice as much gas as the UK consumes and UK reserves are estimated to be significantly greater than this."

- Marcellus Shale production should not be used to predict shale gas production in Scotland. The geology of the Scottish central belt is known to be much more complex and faulted, and therefore likely to be more challenging and expensive to extract gas from.

¹ <http://www.bbc.co.uk/news/uk-scotland-tayside-central-28331545>

² <http://www.foe-scotland.org.uk/ineos-igas-deal>

³ <http://www.foe-scotland.org.uk/ineos-fracking-announcement-reaction> and <http://www.ineos.com/businesses/ineos-upstream/news/ineos-moves-to-become-biggest-player-in-the-uk-shale-gas-industry/?business=INEOS+Upstream>

⁴ <http://www.foe-scotland.org.uk/ineos-fracking-community-bribes> and <http://www.ineos.com/businesses/ineos-upstream/news/ineos-plans-25-billion-shale-gas-giveaway/?business=INEOS+Upstream>

- According to the UK Department for Energy and Climate Change there is not “sufficient understanding of the geology, or experience of the engineering or costs of production to make a reliable estimate of...[UK] shale reserves at this stage.”⁵
- The recent British Geological Survey study of the shale gas potential of the Scottish Central Belt came up with Total Gas in Place Estimates, of which reserves would only ever be a fraction – somewhere between 1% and 10%⁶ - if economically feasible at all.

“Typically, those living in a Shale gas community (approximately 100 square kilometers) would benefit from the output of 200 wells and split £375 million between them ... over the life of the project. All figures are gross and without the deduction of tax which is a matter for the Treasury. Figures assume that gas production is comparable to typical shale gas wells in the USA.”

- Something that INEOS are, unsurprisingly, not shouting about: one of their ‘shale gas communities’ can expect to live with 2 wells per square km – 200 per community – that’s an enormous 1,400 in their central belt licences.
- NB: benefits are quoted pre tax ...
- As above, it is highly inappropriate to assume UK production would be comparable to the USA experience. Setting geology aside, we have an entirely different (and significantly better, if far from perfect) regulatory system here which means increased costs to operators.

“Home owners and land owners directly above the wells would share 4% of the revenue – typically £250 million.”

“The rest of an INEOS Shale gas community would share £125 million between them (2%).”

“Over the lifetime of a single well, home and landowners would get over £1.3 million and the community £600,000.”

- Is INEOS trying to pass off payments to landowners to access their land as ‘community benefit’? A recent u-turn by the UK Government (in response to huge public and Scottish Government pressure) means that INEOS will have to secure agreement from Scottish home and landowners on an individual basis in order to frack underneath their property. A single landowner can refuse, and prevent, or at least significantly delay, INEOS’s plans. INEOS would be expected – and potentially required by law – to pay some form of compensation to people who agree to fracking underneath their property. It sounds like the 4% is being passed off as ‘community benefit’ when it is actually something quite different.
- INEOS is the only operator not to have signed up to a UK Government backed voluntary industry scheme whereby communities would get £100,000 upfront for every well fracked, and £20,000 for every horizontal well drilled.⁷ Because INEOS’s ‘community benefit’ payment is to come from profits, this means that if the industry turns out to be unprofitable, INEOS could walk away from its licence areas having drilled and fracked numerous wells without communities seeing a penny. This is not unlikely: Caudrilla have estimated that it will need to drill 40 wells over 5 years to establish whether there is an economically viable resource at all in the Bowland Shale in Lancashire.

“We believe Shale gas could revolutionise manufacturing in Scotland, creating tens of thousands of new jobs.”⁸

- The ‘tens of thousands of new jobs’ to be created by fracking that INEOS (and the UK Government) like to mention in press releases are overstated. Any new industry will create jobs, but also has the potential for detriment to existing jobs, for example in local tourism. The numbers actually employed on site tend to be low – around 30 by INEOS’s own admission⁹ – and itinerant.
- They are also dependent on the other doubtful numbers around production rates and profits.
- Jobs are apparently secure at the INEOS plant for 15 years now, as a result of the shale gas import deal,¹⁰ which is long enough to plan for a low carbon alternative future for the site and a just transition for workers.

⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/324555/Resources_vs_Reserves_-_note_-_27-6-13-2.pdf

⁶ <https://www.gov.uk/government/publications/bgs-midland-valley-of-scotland-shale-reports>

⁷ <http://www.telegraph.co.uk/news/earth/energy/fracking/11462840/Fracking-communities-may-miss-out-on-cash-payments.html>

⁸ <http://www.ineos.com/businesses/ineos-upstream/news/ineos-launches-scotlands-biggest-shale-gas-information-programme/>

⁹ <http://www.heraldscotland.com/news/home-news/director-to-meet-people-personally-if-possible.120918655>

¹⁰ <http://www.scotsman.com/news/scotland/top-stories/ineos-in-grangemouth-tell-workers-future-is-secure-1-3692327>