Briefing

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Unconventional Oil and Gas in the UK



Stephen Trombala
stephen.trombala@shepwedd.co.uk
Tom Swan
tom.swan@shepwedd.co.uk

Concern about the UK's energy needs in the next 20 years and, in particular, security of supply is currently high on the political agenda in the UK. The current Conservative government believes that gas has a central role to play in the transition to low carbon generation in the UK and is extremely supportive of the development of the UK's onshore unconventional gas resources.

In December 2015, the Task Force on Shale Gas, chaired by Lord Chris Smith, published its findings following a year-long examination into how shale gas exploration should be overseen, concluding that shale gas could be produced safely and usefully in the UK. The Department of Energy and Climate Change (**DECC**) and the Department for Communities and Local Government (**DCLG**) also published a joint policy statement, emphasising the need to explore shale resources in a safe, sustainable and timely way.

The purpose of this note is to provide an overview of the UK onshore licensing regime and the regulatory framework, as well as the other main issues that are likely to arise in relation to onshore exploration and appraisal activities.

Policy

Although shale oil production was pioneered in Scotland in the late 19th and early 20th centuries, the development of the unconventional oil and gas industry in the UK and continental Europe has not so far replicated the US. The explanations for this relate mainly to the higher population density and greater environmental concerns of the population than in the US. The lack of a well-developed onshore services sector in Europe and different land rights to those in the US and Canada is also seen as a barrier to development.

England and Wales

As mentioned above, the UK government is keen to promote exploration of potential onshore unconventional gas resources in the UK. In December 2015 the newly established Oil and Gas Authority (**OGA**) announced that 159 onshore blocks were being formally offered to successful applicants, incorporated into 93 Petroleum Exploration and Development Licences (**PEDLs**) following conclusion of the 14th onshore oil and gas licensing round. However, despite policy statements and public engagement, the Preese Hall 1 well near Blackpool - which was drilled back in early 2011 - remains the UK's only hydraulically fractured shale gas well.

Scotland

North of the border, the situation is somewhat different. Responsibility for regulation of onshore oil and gas exploration and production is due to be devolved to the Scottish government. In January 2015 the Scottish Energy Minister, Fergus Ewing, wrote to the UK Energy Secretary requesting that the UK Government refrain from issuing further onshore petroleum exploration and development licences in Scotland. The OGA

subsequently confirmed that no new PEDLs would be awarded in Scotland or Wales, including as part of the 14th Round.

The Scottish Government has taken a much more cautious approach to unconventional oil and gas, issuing directions in October 2015 to local planning authorities and to the Scottish Environment Protection Agency (**SEPA**) to give effect to a moratorium on the approval of any exploration, appraisal or development activity, until further work is undertaken to calculate the risks and benefits of such activities. The proposed work includes:

- a full public consultation on unconventional oil and gas developments in Scotland;
- a full public health impact assessment;
- further research in order to strengthen planning guidance; and
- consideration of the extent to which environmental regulations require to be tightened.

It is expected that this further work will not be completed until 2017. Until then, no planning permissions or environmental permissions relating to hydraulic fracturing (or unconventional coal gasification) will be granted.

Although the Scottish government have stated that they wish to take an evidence based approach to the decision on whether to allow unconventional gas exploration and production in Scotland, the SNP's manifesto for the Scottish government elections in May 2016 states that it is "deeply sceptical" about hydraulic fracturing and underground coal gasification.

Onshore licensing regime

In the UK, all rights to hydrocarbons are vested in the Crown. The Crown's rights are administered by the Secretary of State for Energy and Climate Change and DECC. On 1 April 2015, certain functions passed from DECC to the OGA, the newly created Executive Agency of DECC. The OGA will become a separate, arm's length regulator for onshore and offshore oil and gas following the enactment of the Energy Bill which is currently making its way through Parliament.

The OGA is responsible, in particular, for the allocation and administration of licences for exploration, development and production of hydrocarbons.

Allocation of licences

The UK's onshore licensing regime is very similar to its offshore regime. Licences are generally issued in competitive licensing rounds. These are initiated by publication of a notice in the Official Journal of the European Union. The relevant notice will normally set out the criteria on which DECC will assess bids. These criteria will usually include an assessment of the technical and financial capabilities of the applicants and their proposed work programmes. Licensing rounds are not auctions and cash bids are not required. DECC has a residency requirement which usually requires an applicant to have a place of business in the UK or to make the application through a UK subsidiary.

As mentioned above, the 14th onshore licensing round was concluded at the end of 2015.

Licence conditions

Aside from the committed work programme, the main conditions of a PEDL are set out in model clauses. These are prescribed by legislation.

The conditions of the model clauses for PEDLs are very similar to UK offshore licences. They are divided into terms. Progress from one term to the next is dependent on satisfaction of certain conditions and the relinquishment of certain areas within the licence. Under the standard (or "traditional") conditions, a PEDL has an initial term of 6 years, a second term of 5 years and a third term of 20 years. Except with OGA agreement, the licence holder is required to relinquish at least 50% of the licence area at the end of the initial term.

An applicant can also apply for a PEDL on "promote" terms under which the initial term is divided into two sub-terms of 3 years, with the licence being capable of being relinquished after the first sub-term. The committed work programme is split between the sub-terms. This allows smaller and less financially capable firms to complete a limited work programme (such as obtaining seismic data) in the first sub-term before (for example) having to give a firm commitment to drill in the second sub-term.

Regulatory framework – exploration/appraisal activities

As with offshore licences, exploration drilling requires OGA consent. In addition, however, planning and environmental consents will also be required, and if the proposed well encroaches on coal seams, permission must also be sought from the Coal Authority. The consents needed will inevitably vary depending on relevant activities, but an overview of the main consents and notifications required for exploration/appraisal activities is set out below. It should be noted that Scotland and England and Wales have different planning and environmental legislative regimes and regulators, although for most practical purposes the requirements are very similar.

Licence conditions

Activity	Requirement
Seismic surveys	21 days' notice required together with evidence of consultation with the relevant planning authorities and that planning permission has been given (if required).
Exploration/appraisal drilling	OGA consent.
Abandonment of wells	If well testing is expected to last for more than 96 hours, a separate well test consent will also be required from the OGA.
Well testing operations for longer than 96 hours	OGA consent.

Planning

Applications for planning permission are usually determined in the first instance by the relevant local planning authority (the local council) in Scotland or the mineral planning authority (county council) in England and Wales. Further information on planning permissions can be found here.

Activity	Requirement
Seismic surveys	Planning permission unlikely to be required unless: • the survey period will exceed 28 days; • large explosive charges are to be used; or • the survey will be carried out in a sensitive area or near to residential buildings, a hospital or a school.
Exploration and appraisal drilling/hydraulic fracturing	Planning permission required. An environmental impact assessment (EIA) may be required as part of the planning process if the activities are likely to have significant environmental effects and fulfil certain other criteria.
Abstraction/disposal of flow back fluids	The production of flow-back fluid from hydraulic fracturing is controlled through the waste management plan which must be agreed as part of the planning permission. See below in relation to additional environmental permits. If pollutants are to be discharged into the water environment an environmental permit (in England and Wales) or controlled activities regulations (CAR) licence (in Scotland) may also be required.

Environmental

The environmental regulator in England and Wales is the Environment Agency (**EA**). In Scotland, it is SEPA. These bodies are responsible for environmental permitting and water abstraction licensing.

The EA published draft technical guidance on activities connected to exploration and extraction activities which could lead to emissions and pollution, for example raw material storage and handling, and waste management. The guidance was opened up for consultation on the approach taken and the standards proposed for the onshore oil and gas sector. The consultation closed on 3 March 2016, and the EA are currently analysing feedback received.

The main environmental risk in relation to hydraulic fracturing is possible interference with groundwater. Consequently, the key environmental regimes of which operators need to be aware are the environmental permitting regime (in England and Wales) and the CAR regime (in Scotland).

Operators are required to carry out an environmental risk assessment (**ERA**) for onshore operations that include fracking, and guidance was published by the government in 2014 on what is expected from these ERAs. The OGA considers it to

be good practice to prepare an ERA at a sufficiently early stage in operations, to allow any environmental or health risks to be identified and measures to mitigate these proposed, and also to facilitate stakeholder engagement.

Activity	England and Wales	Scotland
Exploration/appraisal drilling	Notice to EA of intention to drill. EA may then require operator to take appropriate action to protect ground water quantity and quality.	CAR licence for wells deeper than 200m.
Abstraction of surface or groundwater for fracturing	Environmental permit or CAR licence may be required depending on the volume to be abstracted.	
Injection of fracturing fluid into a well	Environmental permit or CAR licence may be required.	
Abstraction/disposal of flow back fluids	If pollutants are to be discharged into the water environment an environmental permit or CAR licence may be required. See above in relation to additional controls which may be imposed through the waste management plan agreed as per the planning permission. An additional authorisation in relation to naturally occurring radioactive materials (NORM) is likely to be required unless the operator can demonstrate that flow-back fluids will contain NORM below specified thresholds.	

Coal Authority

The UK Coal Authority owns the UK's coal deposits and regulates activities that relate to or might impact upon them.

Activity	Requirement
Exploration/appraisal drilling where well intersects, disturbs or enters a coal seam.	UK Coal Authority consent required.

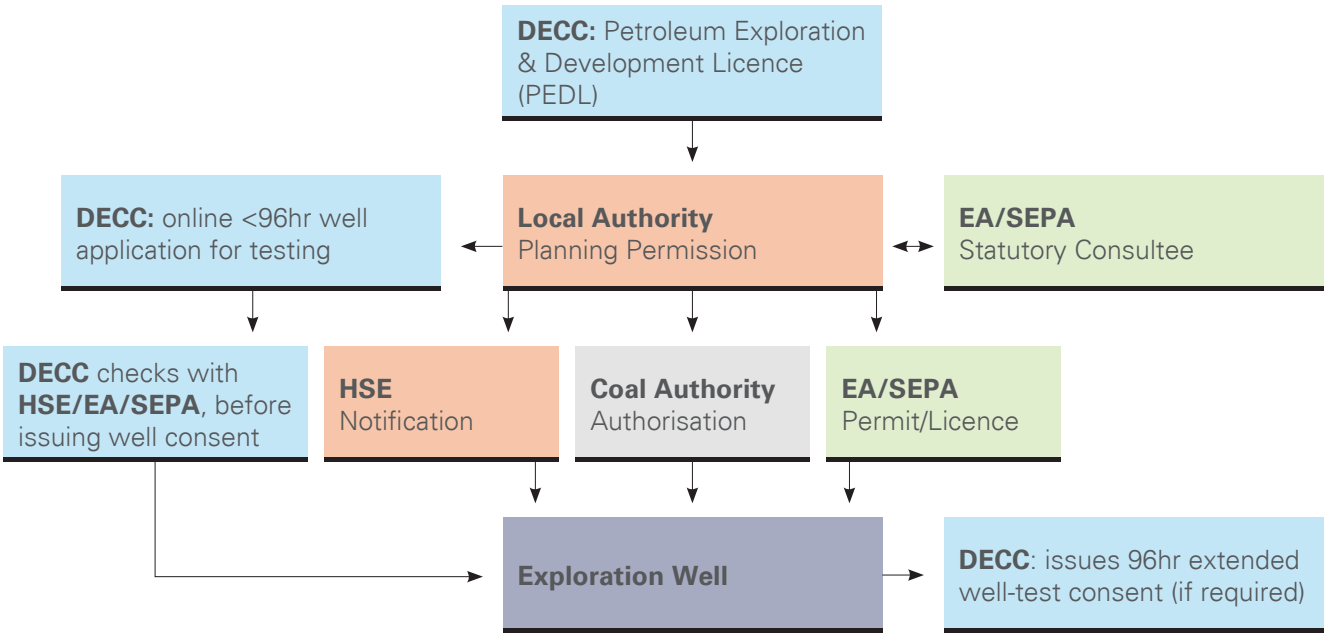
Health and Safety

The Health and Safety Executive (**HSE**) is the UK government department which is responsible for health and safety. General UK health and safety legislation in relation to the equipment and methods used will apply to exploration and appraisal activities. In addition, there are specific regulations relating to onshore drilling. HSE inspectors will take actions to enforce the legislation if it becomes apparent a well operator has not complied with its legal duties. These actions can range from ensuring the operators change the design of the well, to prohibiting operations until the breach is rectified. Further information can be found here.

Activity	Requirement
Drilling, altering or abandoning a well. Any other activity which involves a risk of accidental release of drilling fluids	21 days' notice to HSE prior to commencement of operation.

Process

The various steps through the regulatory process are set out in the following flowchart:



Source: DECC

Office for Unconventional Gas

While the relevant regulators have stated that they will cooperate with each other in relation to the consents required in connection with unconventional oil and gas exploration and development, it remains to be seen how well this will work in practice.

The UK government recognises that the lack of a single regulator who has responsibility to deal with all aspects of exploration and development activity may hamper efforts to develop the UK's unconventional oil and gas resources. This is especially the case given that local issues are likely to be at the forefront of any planning decisions. In December 2012 the UK Government established the Office for Unconventional Gas and Oil (**OUGO**) within DECC with the remit of seeking to *"join up responsibilities across government departments to provide a single point of contact for investors and streamline the regulatory process"*. The OUGO aims to ensure that the regulation of unconventional oil and gas is as simple as possible without compromising public and industry safety or the environment. It works with the EA and HSE, and provides a single point of contact for investors.

However, given the more recent establishment of the OGA, it remains to be seen whether the OUGO will continue to have a part to play, or whether the OGA will play more of a role in coordinating the various regulatory consents and overseeing the licensing of oil and gas exploration and production.

Land use/availability

While the rights to hydrocarbons are vested in the Crown, the grant of a licence from the OGA does not include any rights to occupy land for exploration or production. These rights will need to be sought from private landowners. Common practice is for the operator to seek an option to acquire a lease of the drilling site if and when the operator serves notice. The option will also allow the operator to carry out exploration/appraisal activities on the land prior to it being exercised.

The option period can vary, but market practice is for a term of three years during which the lease can be granted. This period can be extended either on an annual basis by giving notice, or subject to the grant of planning permission when an application has been made but not yet approved.

At present the common term of a lease for a drilling site is in the region of twenty-five to thirty-five years. While this is a matter for agreement between the parties, it is likely that the period will be equivalent to the remaining period of the licence (on which please see above).

Prior to the introduction of the Infrastructure Act 2015, a right to drill needed to be obtained from all owners of land under which the well bore would pass, and not just from the owner of the site of the well pad, following a Supreme Court case in England and Wales which confirmed that horizontal drilling below a private landowners' land without permission constituted

trespass. The Infrastructure Act provides a statutory right for operators to carry out works in so called deep-level land (below 300 metres from the surface). As part of the Government consultation in 2014 it was proposed that operators make a voluntary payment of £20,000 in return for exercise of these rights. In most cases operators already seek to make such contributions to community benefit as part of the planning consent process, but to date no statutory instruments have been enacted to provide for a set payment (for example an amount for each horizontal drill from one well, or on a per kilometre basis) to the landowner.

The Infrastructure Act does not however apply in Scotland, and so a right to drill will still need to be obtained from all owners of land under which a well bore will pass.

If there are any third party rights to mines and minerals, rights in favour of utilities or statutory undertakers or if the subsurface is not owned by the surface landowner, these will have to be dealt with as part of the negotiations. Whilst the right to hydrocarbons is vested in the Crown, if any third parties have associated rights to win and work other minerals they may have a claim for trespass if it were held that a well pad or other infrastructure was inhibiting their legal right.

If agreement cannot be reached between the operator and the relevant landowner(s), an application can be made to court for an order granting the necessary rights. If the court decides to make such an order it will require compensation to be paid by the operator. This compensation is calculated on the basis of what would be fair and reasonable between a willing operator and a willing landowner having regard to the conditions of the order. In practice, this court procedure is rarely used although principles upon which the court calculates the compensation that would be payable can be used as a starting point in negotiations with landowner(s) in relation to rent.

Fiscal Regime

While the fiscal regime applying to onshore oil and gas is broadly similar to that which applies to the UKCS, some additional specific incentives have been introduced in an effort to encourage exploration and development.

Corporation Tax

Corporation tax for both onshore and offshore oil and gas is charged at a rate of 30%, with profits and losses ring fenced to prevent companies offsetting taxable profits from oil and gas production against losses from other business areas. Onshore and offshore oil and gas are however grouped together, so losses from onshore activities can be offset against profits from offshore activities, or vice versa.

Ring Fence Expenditure Supplement

The Ring Fence Expenditure Supplement (**RFES**) assists companies that do not have the requisite levels of taxable income (bearing in mind the ring fence corporation tax regime) against which to set their exploration, appraisal and development costs. The RFES works by increasing the value of losses carried forward from one accounting period to the next by a compound 10% a year for a maximum of 10 years.

To reflect the often longer periods it can take to payback onshore oil and gas activity, the Finance Act 2014 extended the number of accounting periods for which a company can claim the RFES. These measures apply to pre-trading expenditure on onshore activities incurred on or after 5 December 2013.

Pad allowance

The Finance Act 2014 also established a new allowance for expenditure in relation to onshore oil and gas projects incurred on or after 5 December 2013. Known as the 'pad allowance', its purpose is to support the early development of onshore oil and gas projects which are economic but not commercially viable at the full rates of tax.

The allowance works by reducing the ring fenced profits of a company that are subject to the supplementary charge (an additional 10% charge on a company's ring fence profits) by an amount equal to 75% of the capital expenditure incurred by that company in relation to an onshore site.

Community benefits

Local perception of the risks and benefits of an onshore unconventional gas development is likely to be an important element in the planning of any onshore activities. The UK government's policy is that local communities should receive tangible benefits from hosting developments. In June 2013, United Kingdom Onshore Oil and Gas (**UKOOG**) published a "Community Engagement Charter" which aims to create benefits for the communities where shale operations take place. Crucially, these benefits are not restricted to the production phase, and operators are encouraged to engage at an early stage, before any planning application is submitted. The Charter sets out what can be considered industry minimums for community benefit initiatives which cover both the exploratory and production phases:

- £100,000 will be paid to each local community situated near to an exploratory, hydraulically fractured well. This will be paid by the operator, regardless of whether or not recoverable deposits are found at the site;
- 1% of production revenues will be paid to communities during the production stage, before the operator has

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accounted for costs; and

- operators must publish evidence each year setting out how they have met these commitments.

The above benefits are however just minimum standards, and it is open to operators to go beyond this in delivering benefits to the communities they operate in. INEOS is one company that has done just that, announcing plans last year to give away 6% of its shale gas revenues to homeowners, landowners and communities close to its wells, estimating that it will give away over £2.5 billion from its new shale gas business. It remains to be seen whether other major players in the UK unconventional market follow suit and offer similar benefits.

If you require advice on any of the matters raised in this paper, please get in touch with any of our lawyers listed here or your usual Shepherd and Wedderburn contact.

Stephen Trombala
Partner
T +44(0)131 473 5720
E stephen.trombala@shepwedd.co.uk

Tom Swan
Senior Associate
T +44(0)131 473 5438
E tom.swan@shepwedd.co.uk