Introduction to UK petroleum law and practice

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The first part of this book includes chapters on joint operating agreements (JOAs), decommissioning security arrangements, health and safety, tax, offshore contracting, financing and potential disputes arising from decommissioning. Although some material may have international application, each chapter has particular relevance (in varying degrees) to UK practice in the area of decommissioning. Therefore, prior to these specific chapters, this introduction provides some background and context on the UK petroleum industry.

1. Background

1.1 Origins of the oil and gas industry

The United Kingdom has a long history of petroleum production. Oil was extracted from shale in Scotland as early as the 19th century. The Bathgate works in central Scotland were established in 1851 and claim to be the first site in the world where mineral oils were processed on an industrial scale.[1] Production of coalbed methane (CBM) has been associated with the development of Britain's coal mining industry over the last two centuries. CBM was initially considered a safety risk rather than a commercially exploitable resource. However, before utility-scale electricity was commonplace, it was used as a fuel source for lighting. CBM continues to be produced in the United Kingdom for other purposes.

Despite this limited onshore production of certain hydrocarbons, it was only at the start of the 20th century that commercial drilling for petroleum began. Exploration was promoted by Winston Churchill's decision to increase the number and diameter of guns on Royal Navy ships.[2] The resulting increased weight of the fleet (and therefore reduction in speed) was offset by Churchill's risky decision to upgrade naval engines from coal to oil. The uncertainty arose due to reliance on Britain's insecure oil supply. A Royal Commission was established in July 1912 to consider the issue. It recommended, among other things, government investment in British companies with overseas oil concessions. Domestically, the development of reserves in the East Midlands provided an important source of supply to armed forces during World War I. However, many fields developed as part of the military effort had short production lives and were abandoned after the end of hostilities. No major

1 Source: www.scottishshale.co.uk.
2 Daniel Yergin, *The Prize: The Epic Quest for Oil, Money and Power.*

discoveries were made in the 1920s and 1930s and, despite a spate of war-related exploration activity, Britain was not considered prospective. Although an onshore oil and gas industry still exists in the United Kingdom, it has never been prolific. Today, onshore production makes up about 1% of the country's output.

The United Kingdom's production profile changed in the late 1960s. The Indefatigable gas field, lying 75 kilometres offshore in the southern North Sea (close to the Norfolk coast and the subsequently developed Bacton gas terminal), was discovered in 1966. Phillips Petroleum's exploration of the Ekofisk field (in the Norwegian sector of the North Sea, but close to the northeastern boundary of the United Kingdom's continental shelf) indicated potential oil reserves on the British side. Discoveries – such as the Alma/Argyll and Brent fields – were made in 1971 in the central and northern sectors of the United Kingdom's North Sea. The development of these (and other) fields turned the United Kingdom into a significant oil-producing nation. Output peaked in 1999 – and the country is now considered a mature oil province. It is noteworthy, in the context of this book, that the inaugural fields mentioned above have now been decommissioned (in whole or part), or are subject to decommissioning programmes.

Yet, despite these transformative offshore discoveries, the United Kingdom's legislative regime did not change significantly. The previous licensing model used to regulate the onshore industry was merely extended to the United Kingdom's continental shelf (UKCS). This licensing system, put in place at the beginning of the last century, continues to apply generally to the industry today.

1.2 The modern oil and gas industry

The oil and gas industry has been the largest sector of industrial development in the United Kingdom during the last four decades. It currently supports 440,000 jobs and contributes around £8 billion annually to government revenues.

As previously noted, the vast majority of UK oil and gas production comes from the UKCS.[3] Three-quarters of the United Kingdom's current primary energy demand is met by oil and gas. In 2011, oil produced from the United Kingdom satisfied 68% of domestic demand (natural gas: 58%). In 2011, the United Kingdom was the world's 19th-largest oil and gas producer. In Europe, it was the second-largest oil producer (natural gas: third).[4]

The United Kingdom is now a mature oil and gas region with 40 billion barrels having been extracted already from the UKCS.[5] Production is declining. Output from the UKCS peaked in 1999. The average size of fields discovered between 2000 and 2008 was 26 million boe, compared with an average of 248 million boe in the 10 years from 1966.[6] Offshore production began in the late 1960s and, as a result of this longevity, the United Kingdom has some (although still limited) experience of

3 See www.decc.gov.uk/en/content/cms/meeting_energy/oil_gas/oil_gas.aspx.
4 Oil & Gas UK website (accessed on December 18 2012): www.oilandgasuk.co.uk/economics.cfm.
5 See www.decc.gov.uk/en/content/cms/meeting_energy/oil_gas/oil_gas.aspx; http://og.decc.gov.uk/assets/og/data-maps/docs/6307-uk-oil-reserves-eur-2012.pdf.
6 Oil & Gas UK website (accessed on December 18 2012): www.oilandgasuk.co.uk/knowledgecentre/operations.cfm.

decommissioning issues. Relevant decommissioning legislation has been in place since 1987 and, in this respect, the United Kingdom is considered to be advanced.

Declining production and smaller discoveries are changing the profile of the UKCS's investor base. The large reserves of the 1970s attracted super-major oil companies. Smaller discoveries and declining production appeal to a different profile of investor. Recently super-majors have sold some of their UKCS interests to independents and companies specialising in extracting value from end-of-life fields. This divestment trend will continue. Despite this potentially causing an adverse impact on decommissioning obligations, diversification of the UKCS's investor base is actively encouraged by the Department of Energy & Climate Change (DECC).

Whilst government and JOA parties may have previously been comfortable with counterparty risk of a super-major failing to perform decommissioning obligations, a less favourable risk assessment is likely to be made against the UKCS's new entrants. Potential counterparty default is a concern for both government and joint venturers. Each is potentially liable to perform a defaulting party's obligations. This risk is mitigated, in part, by ensuring that financial security and cost provisions are put in place to fund decommissioning liabilities. Despite this providence, there was previously a possibility that funds set aside by a company would be used, upon insolvency, for the benefit of the general creditors of the company (and not put towards the satisfaction of decommissioning liabilities). The Energy Act 2008 ('the Energy Act') therefore made several amendments to the 1998 Act. New provisions were introduced to ring-fence funds set aside for these purposes.[7]

Decommissioning security agreements, and recent changes to UK practice, are discussed in a later chapter.

1.3 Decommissioning statistics

Oil & Gas UK, a trade association for the UK oil and gas industry, has forecast projected decommissioning expenditure in the UKCS of £28.7 billion by 2040 for existing facilities. New investments could add £4.3 billion to this total.[8]

In a survey of 25 operators carried out by Oil & Gas UK in July and August 2012 on planned decommissioning activities between 2012 to 2017:

- More than half of respondents classified their expenditure as AACE[9] class 4 or 5, which indicates that their projects are still at an initial scoping stage.
- Total forecast expenditure on decommissioning during this period is £4.5 billion, with over half in the northern North Sea. This expenditure covers 80 fields, 40 platforms (from unmanned platforms in the southern North Sea to

7 The Energy Act also allows the Secretary of State to require a security provider to publish specified information about protected assets to ensure that existing and future creditors have notice of bankruptcy-protected decommissioning funds.

8 Oil & Gas UK: 2012 Decommissioning Insight, available at: www.oilandgasuk.co.uk/cmsfiles/modules/publications/pdfs/OP073.pdf. Oil & Gas UK also maintains databases containing details of the platform and subsea structures still to be decommissioned in the UKCS, available at: www.oilandgasuk.co.uk/publications/viewpub.cfm?frmPubID=457. In addition, DECC publishes tables of approved decommissioning programmes and draft decommissioning programmes under consideration, available at: og.decc.gov.uk/en/olgs/cms/explorationpro/decommissionin/decommissionin.aspx.

9 The Association for the Advancement of Cost Engineering International (AACE) classification scheme is available at www.costengineering.eu/Downloads/articles/AACE_CLASSIFICATION_SYSTEM.pdf.

large integrated facilities in the central and northern North Sea) and 177 pipelines.

- The largest category of expenditure is plugging and decommissioning of wells (almost £2 billion), including 286 wells in the central and northern North Sea and 74 wells in the southern North Sea and the eastern Irish Sea. Of these, 76% are platform wells.
- Twenty-two per cent of expenditure is forecast in the suspension live phase of a decommissioning project, the majority of which comprises operational costs associated with running facilities while decommissioning takes place.
- One-fifth of total expenditure is for removal of topsides, jackets and subsea installations; 170,000 tonnes is expected to be removed at a cost of £800 million. A total of 162,000 tonnes of material is expected to be transported to shore for dismantling.

1.4 State regulation and licensing

Government control over UKCS petroleum reserves was not achieved (as was initially the case for UK onshore)[10] by a declaration of state ownership of reserves. Rather, the state merely claimed an exclusive right to explore and produce petroleum located in the UKCS. These activities could be licensed to commercial entities. From 1975, potential licensees competed for this right against a state-owned national oil company, which had an ability to take a 51% interest in new fields. Government policy (particularly the level of its industry participation) could therefore be influenced by the working interest awarded to the national oil company in successive licensing rounds. That ended in the early 1980s as part of a general privatisation of British industry. This position continued under successor governments and the United Kingdom no longer operates a national oil company or takes any physical interest in production. However, the state's exclusive (although licensable) right to explore and produce remains. It is currently given effect by the Petroleum Act 1998 (the '1998 Act'), which is a re-enactment of statutory law existing since 1934.

A licence does not transfer legal title to petroleum. As the name suggests, it is merely a permission to explore and produce. It is common law, not statute, that allocates ownership of petroleum to producers. This occurs only after reserves have been extracted from the ground or (to use the legal terminology common in this area) once petroleum has been 'won' or 'captured'.

Rather than being an instrument conveying title to petroleum, a licence is an agreement regulating exploration and production activity. For practical purposes, the licence fulfils a role similar to government regulation. It contains model clauses created by delegated legislation.[11] These model clauses are not (as a matter of practice) subject to commercial negotiation. However, although in the nature of

10 Petroleum (Production) Act 1934, Section 1(1).

11 Delegated legislation is also known as secondary legislation, statutory instruments, regulations or Orders in Council. These terms are used interchangeably in this chapter. The key feature, for present purposes, is that they are a type of statutory law (often containing provisions of a technical nature) which add supplementary details to an Act of Parliament. They can be brought into force by an order of a government minister and without the need for further parliamentary scrutiny.

regulation, on a strict legal analysis a licence creates a contractual relationship between government and licensees. The contractual nature of the licence has important consequences, including that it can be amended only by agreement of all parties rather than unilaterally by government. When considering the robustness of a licence being used to enforce decommissioning obligations,[12] the legal classification of a petroleum licence as a contract is significant.

The Continental Shelf Act 1964 ('the 1964 Act') extended the onshore licensing regime to the UKCS. The enactment of this statute coincided with two important developments: the codification of international law of the sea[13] and speculation about potential reserves in the UKCS.

Although exploitation of offshore resources takes place in fundamentally different physical, climatic and financial environments, government decided not to introduce a separate legal regime for UKCS reserves. This decision was influenced in part by a need for rapid exploitation of these newly discovered resources to help address the United Kingdom's balance of payments deficit. State participation in the offshore industry was also restricted by a lack of relevant expertise in the UK public sector (and the United Kingdom generally). Despite now being commonplace, in the late 1960s offshore drilling in deep water was innovative. Although some relevant international experience existed (particularly in the United States), activity in the UKCS required operations to take place in deeper water and more extreme weather and oceanic conditions. Government therefore decided to rely on commercial companies (particularly those with previous offshore experience) to perform operations.

Consequently, the United Kingdom is characterised – for both onshore and offshore – by state regulatory control exercised by the licensing of exploration and production activities. During the last 30 years the department with licensing responsibility has gone through various changes and re-brandings. This function is currently performed by DECC.[14]

Licensing provides the state with a degree of regulatory control over industry. This is supplemented by statute. But legalistic reliance on model clauses and legislation is a poor substitute for government control over a project's decision-making structures. DECC's day-to-day commercial and technical influence is considerably less than would be the case, for example, in a jurisdiction using production sharing contracts whose petroleum industry is dominated by a government national oil company.

In the context of decommissioning, model clauses include an obligation not to decommission a well without the Secretary of State's permission.[15] It also allows the Secretary of State to require that a well is plugged and decommissioned in accordance

12 Discussed below.
13 Geneva Convention 1958.
14 The terms 'DECC' and 'government' may be used interchangeably in this chapter.
15 The model clauses contained in UK licences and the 1998 Act continue to refer to 'abandonment' (despite a policy against using this term). 'Abandonment' may imply a carefree attitude to end-of-life obligations. Therefore, in recent years, 'decommissioning' has been preferred. Other than possible negative connotations, in this context the two words are almost synonyms. For consistency, this chapter (other than when quoting sources) refers to 'decommissioning'.

with his specifications.[16] However, we will see that this model clause is not, in reality, a provision relied on by government. Statutory powers are preferred.

What benefit does government receive from a licensing system? Instead of taking a share of physical production (as would be the case under a production sharing regime), government benefits financially and fiscally from receipt of licence payments and tax on profits. Petroleum revenue tax (PRT) is payable in addition to general corporation tax. Producers are subject to a ring-fenced tax regime. Profits resulting from one field cannot be offset against losses or tax relief from another. The ability to include decommissioning expenses to minimise tax reduces the overall burden of decommissioning considerably. The continued existence of tax relief on decommissioning expenses has been subject to recent speculation and, in part to put an end to uncertainty created by rumours, government provided assurance to industry on the tax treatment of these expenses in the 2012 Budget. The United Kingdom's petroleum tax system is described, with particular reference to decommissioning, in a later chapter.

1.5 Decommissioning legal framework

The United Kingdom's legal and contractual framework allocates costs and risk associated with decommissioning through a hierarchy of obligations. Governmental commitments contained in international conventions are implemented by domestic legislation. Statute provides a framework for these obligations to be enforced. However, the 1998 Act does not provide detail on the method, timing, entirety or quality of performance. This is determined on a case-by-case basis in decommissioning programmes agreed between Section 29 noticeholders[17] and DECC. Government policies on standards to be included in decommissioning programmes (and subsequently required to be performed) can be derived, more generally, from DECC-issued guidance notes. Based on this statement of government practice, commercial parties can allocate responsibility amongst themselves, estimate likely future costs, make financial provisions for these costs and put in place contingencies for counterparty default.

Given this chapter's introduction on the licensing regime operating in the United Kingdom, one instrument – the licence – is largely missing from the discussion contained in this book.[18] There is good reason for this. Decommissioning obligations contained exclusively in a licence would not be sufficient. A licence is awarded prior to exploration. It would be impossible, at this stage, to predict the scope of decommissioning obligations. A successful petroleum development may last for up to 30 years. During a project's life government policy will change, reserves will be recalculated, costs will escalate, licensees will assign their working interests, technology will improve and alternative uses for depleted fields will develop. In the context of decommissioning obligations, a licence – which fixes contractual

16 For example, the Petroleum Licensing (Production) (Seaward Areas) Regulations 2008/225, model clause 19.

17 This concept is described below and throughout the first part of this book.

18 Although there are some decommissioning obligations in licences relating to the plugging and decommissioning of wells (see footnote 16), these are not government's principal source of powers.