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Access to Infrastructure on the UKCS

The Past, the Present and … A FUTURE

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FORWARD

The research for this paper commenced in 2009 when I was negotiating access rights for an offshore tie-back on the East Coast of Canada. Without any voluntary codes in place and next to no precedent in the basin for such developments the tariff discussions became protracted and intransigent positions adopted. In an effort to move the parties I turned to the competition law for a lever to break the deadlock muttering throughout that 'this would never happen on the UKCS...'

Upon my return to the UK I commenced research for a paper with a working title of 'Access to Infrastructure: The UKCS' Response to the Regulation of Offshore Monopolies'. My intention was to build on the competition law principles I had researched in Canada and show how the Infrastructure Code of Practice (ICoP) obviated the need to resort to the competition legislation. However, after completing the research the title changed to 'Access to Infrastructure: Is ICoP Enough?' It was clear that all was not well on the UKCS either.

2012 presents some unique opportunities for the UKCS in several areas but in particular for Access to Infrastructure. The Government-Industry consultation group, PILOT, are reviewing the Access to Infrastructure regime partly in response to the new powers of the Secretary of State to set terms on his own initiative but also in recognition that the present regime may not adequately serve the UKCS, including its participants both big and small, in its present vintage and in the future.

The research presented in this study is high-level but offered as a starting point to understand the development of this issue, how it is dealt with elsewhere and potential solutions that might be considered. Whilst the final outcome of the PILOT initiative remains to be determined it is clear that change is required, if only to keep pace with the changing dynamics of the industry, its participants and challenges.

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EXECUTIVE SUMMARY

The UK offshore oil and gas industry has the capacity to provide significant benefits to the UK in the form of taxation, employment and security of energy supply for many years to come. However, the size of the contribution will depend on the effectiveness of Government to put into place measures that maximise the economic recovery of reserves from the United Kingdom Continental Shelf ('UKCS').

A key part of that challenge will be making access to existing infrastructure easier in order that smaller fields can be fast-tracked into production. Without such production many of the facilities needed to develop these fields will be prematurely decommissioned leaving the reserves stranded.

This study reviews third-party access rights on the UKCS; their genesis as part of the onshore regime through to implementation offshore, as a part of the British National Oil Corporation ('BNOC') legislation, and into the present form of light-handed regulation. It measures the effectiveness of the legislation and compares the framework to other oil and gas regimes in the North Sea, Canada, the Gulf of Mexico and to the UK regulated utilities.

The key findings of the study are:

The Past

The framework for the resolution of access to infrastructure disputes was based on the onshore framework where the Government acted as an independent arbiter. This onshore framework was then applied to offshore pipelines, ostensibly to protect the fishing industry but with the capacity to ensure access rights for BNOC, the state participant.

When BNOC was rendered ineffective, access rights moved from being capable of heavy Government influence to a light-handed, *laissez-faire*, approach reliant on private negotiations heavily weighted in favour of the natural monopoly incumbents. It is not clear whether this was recognised or was an unintended consequence but concerns about the natural monopoly position of infrastructure owners resulted in the voluntary Infrastructure Code of Practice ('ICoP) being agreed.

Effective industry codes address information asymmetry between market participants and rely on competition law, acting as a proxy for a competitive market, and the real threat of effective Government intervention. Historically these constituent elements have not featured with sufficient strength within the UK petroleum regime resulting in concerns being expressed from nearly all stakeholders about the effectiveness of the ICoP since its introduction.

The Present

The UK Industry

With most of the estimated 20 billion barrels of reserves on the UKCS being within a 25 kilometre 'sweep' of existing facilities, their development in a fair and timely manner is the key to maximising the recovery of reserves from the UKCS. If new fields remain undeveloped then the facilities upon which they depend will be decommissioned. It has been estimated that by 2020 early decommissioning has the capacity to strand 3 billion barrels of oil equivalent.
The threat of Government intervention has been increased with new powers for the Secretary of

State to intervene of his own initiative but it is uncertain whether Government will provide additional resources to ensure this threat is effective. Furthermore, the application of competition law and the issue of information asymmetry have not been addressed.

Review of other Jurisdictions

The Dutch state participant, EBN, continues to lead its Government's policy in this area and Norway and Denmark have abandoned voluntary arrangements in favour of regulation which has been successful in reducing access issues. As such, the UK is in danger of being out of step with the other North Sea competitors. In terms of the successful implementation of voluntary arrangements the Albertan, Federal Canadian and Dutch jurisdictions demonstrate that voluntary commitments to set terms as if in a competitive market, where the variables are identified, measurable and objectively auditable, provide predictable outcomes and add to the effectiveness of the threat of Government intervention.

Review of the Regulated Utilities

The regulated utilities for gas and wind, in combination with the evolution of Norway's Gassled and its independent system operator Gassco, demonstrate that systems with operators that are independent of upstream considerations make investment decisions that are consistent with facilitating the development of new production. The rail, wind and water utilities award concessions to manage infrastructure within a region to an independent system operator providing a mechanism for Government to outsource its public interest obligations to the private sector and promote competition between system operators.

… A Future: Recommendations

This study concludes with recommendations that focus on three levels of regulation that range from very light, voluntary commitments; to a light-handed approach with strengthening measures; through to heavy-handed sector specific regulation and restructuring. The identification of the point that the UKCS sits within that range and where it should be positioned going forward is the challenge facing stakeholders.

The Voluntary Commitments

Three facets of typical tie-back negotiations should be targeted for standardisation and incorporation into ICoP and, where possible, they should be confirmed as consistent with the regulator's approach.

Indemnities

Work should be undertaken with the insurance industry to understand and standardise the liability regime governing tie-ins and 'Macondo' type events along with compensation for deferred production.

Template Transportation, Processing and Operator Services Agreement ('TPOSA')

Each host facility operator should work to agree their own template TPOSA. This process could be led by the regulator, the Department of Energy and Climate Change ('DECC') issuing its pro forma terms it would be minded to adopt in the absence of a template. This would have the effect of bringing a certain amount of standardisation to the framework and associated boilerplate.

Tariff Framework

The success of voluntary commitments in the Canadian and Dutch jurisdictions suggest that improved behaviours might arise if the ICoP were supplemented with an objectively measurable tariff setting framework where the inputs are disclosed and auditable and supported by powers of the Secretary to reset tariff after production commences.

Support for Light-handed Regulation

Information asymmetry, the lack of an effective competition law regulator and the previously weak powers of the Secretary of State to practically intervene have all contributed to undermine the success of the voluntary regime to regulate the use of facilities. Whilst the Energy Act 2011 has the capacity to address the latter, the UK's competition regulator, the Office of Fair Trading, should be encouraged to conduct a market survey of the offshore market for the provision of transportation, processing and operator services and produce guidelines as to how it would deal, if at all, with the various types of anti-competitive claims that may be made in this area. To address information asymmetry, the ICoP could be strengthened by matching the Secretary of State's powers to require disclosure under the Energy Act 2011 with a voluntary disclosure commitment from facility operators of their relevant asset specific financial and technical data.

To assess whether the UKCS is at a competitive disadvantage due to the absence of more detailed regulation a dialogue should be opened between the regulators in other North Sea jurisdictions to understand their move to regulated access. In parallel, Government should allocate additional resources to DECC to enable the Secretary to fulfil his duty under the Energy Act 2011 to require information disclosure and intervene before negotiations reach a critical point.

Twilight on the UKCS

Barring a game-changing development, the UKCS is likely to be left with a small number of offshore pipelines and facilities managed on a care and maintenance basis by a private sector contractor or Government entity with production reserved for strategic purposes. Prior to this point, fiscal policy will need to adapt in a progressive manner to ensure the tax take does not lead to stranded reserves (known as 'fiscal stranding'). In addition the tensions between upstream interests and infrastructure operatorship that distort investment decision making and create a barrier to new production should be addressed by the restructuring of system operatorship.

The solution, according to economic theory and the practical experience from the EU gas regime, might be to liberalise the pipeline operator role from the exploration and production functions by the appointment of independent system operators (‘ISOs’) to maintain and build facilities for new business. To provide incentives on ISO’s to invest, each of the major basins on the UKCS could become the subject of regional concessions that mandate the holder to maximise the economic recovery of reserves pursuant to commitments made during a competitive tender process. To guard against fiscal stranding, these concessions could be supported by Government guarantees for approved investments using mechanisms that ‘cap’ and ‘collar’ revenue thereby having the effect of a progressive fiscal regime. Incentives to achieve costs savings could provide an additional profit centre and encourage existing user support. To encourage infrastructure owner support existing rights to tariff revenue and capacity would need to be grand-fathered.

The ISOs could also manage the Government’s £22 billion decommissioning obligations ensuring that decommissioning is undertaken at an optimal time by competitive tendering and in a coordinated manner.

The Transition

The critical pipeline system operators should be identified and appointed under ICoP as ‘Regional Champions’. The Regional Champions would be tasked with assessing the prospectivity in their catchment area, working with the host facilities to address information asymmetry and the development of a rolling five year work programme and budget including decommissioning plans. The Regional Champions would also be mandated to act as a facilitator between users and hosts and would report to DECC with recommendations of proposed terms that the Secretary of State might set. The transition from Regional Champion to regional concession could occur on a voluntary basis during a transitional period ending on a fixed future date determined by the Secretary in consultation with the industry and which could move if certain commitments are provided by the incumbents.

CONTENTS

1. INTRODUCTION: HISTORY AND CONTEXT

Oil and gas exploration and production ('E & P') activities on the United Kingdom Continental Shelf ('UKCS') account for significant benefits to 'UK Plc' in terms of tax revenue, employment and security of energy supply. Of the estimated 60 billion recoverable barrels of oil equivalent ('boe') originally in place on the UKCS, 40 billion have been produced since production began in the early 1970s.

However, the majority of the remaining 20 billion boe to be found and produced are contained in numerous small accumulations that can only be economically developed by connecting to nearby existing infrastructure. Use rights for this infrastructure have historically been privately negotiated between the user field owners, the 'shippers', and the infrastructure owners, the 'carriers'. Due to the large sums required to replicate existing pipelines and facilities they may be characterised as local monopolies and concern has been expressed that their owners are able to charge disproportionately high fees for their use. To address this concern access to such infrastructure is subject to 'light-handed regulation' by the Government through a combination of a voluntary industry code, known as the Infrastructure Code of Practice ('ICoP'), back stopped by powers of the Secretary of State for Energy and Climate Change (the 'Secretary') to set terms where negotiations prove unsuccessful.

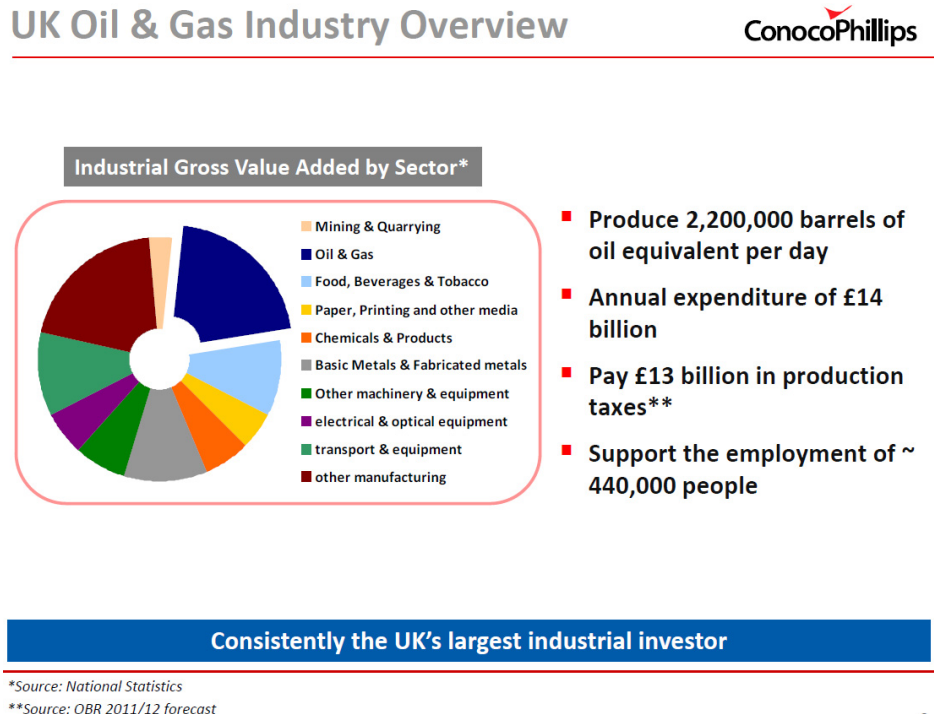
As the UKCS has matured fields have become smaller leaving less economic rent available to stakeholders. This trend is expected to continue and is already complicating negotiations for facility use leading to the loss of value through delay in field development, developments undertaken using a less economic option or the indefinite shelving of developments. The situation is likely to reach a critical point if old facilities are decommissioned leaving small accumulations that are within their catchment area stranded. If this scenario plays out across the UKCS it could result in the stranding of much of the remaining 20 billion boe leading to the premature end of the industry and consequential job losses, lost taxation revenue and dependence on imported oil and gas.

Given the significant potential for the development of found and yet to find reserves and the complications brought about by infrastructure ownership and use rights the purpose of this high-level review is to provide an insight into the development of the existing framework, a comparative analysis of practices elsewhere and the identification of any gaps or required strengthening. The study also considers the long term outcome of the UKCS in particular what the structure of ownership might reasonably be expected to be in the final years. A proposed transition plan is offered in order to reach that outcome in a strategic manner that facilitates the maximum recovery of reserves from the UKCS.

2. OVERVIEW OF THE UKCS INDUSTRY

2.1 The Contribution to 'UK Plc'

In his address to attendees at Oil & Gas UK's 'Breakfast Briefing' on 25 October 2011, Paul Warwick, co-chair of Oil & Gas UK and President of ConocoPhillips' UK and Africa operations provided the below slide:



In addition to being the UK's largest industrial investor data from the 2011 Oil & Gas UK activity survey confirms that the industry continues to be a significant employer, a significant contributor to tax revenues and critical to providing the majority of secure energy from domestic sources. In 2010 the industry:

- satisfied 87% of domestic oil demand and 61% of gas;
- supported employment of around 440,000 people across the UK (45% of them in Scotland);
- contributed £32 billion towards the balance of payments with the wider supply chain industry contributing another £5-6 billion in the export of oilfield goods and services;
- paid £8.8 billion on production which is 20% of the total corporate tax take received by the Exchequer (and this is estimated to rise to over £13 billion in 2011-2012 providing over a quarter of total corporation taxes) with the wider supply chain contributing another £6 billion in corporate and payroll taxes; and
- invested £6.0 billion of capital.

The industry is without doubt the single most important industry in the UK and has the potential to continue to make a significant contribution to the UK's treasury for a considerable period to come. However, as observed in PILOT's[1] 2005 Brownfields Report[2], this contribution is not inevitable and restructuring the industry from one that facilitated big field integrated developments to one that facilitates marginal, small field developments utilising existing infrastructure, is one of the challenges facing stakeholders.

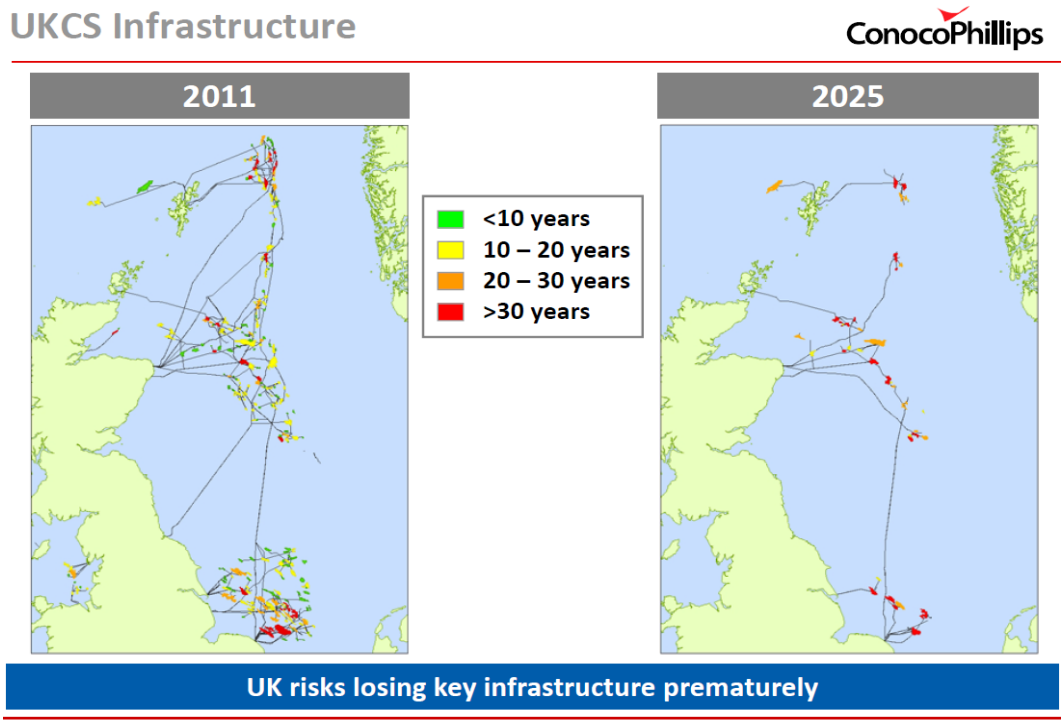
2.2 The Future

Going forward the size and type of new field developments will change. Oil & Gas UK's 2010 Activity Survey[3] records a trend where the numbers of producing fields have increased but field sizes are smaller and whilst there is still the capacity for big, 100 million boe plus discoveries, activity on the UKCS in general is likely to be characterised by smaller exploration companies undertaking numerous small field developments of less than 20 million boe that are tied back to existing infrastructure.

Brownfields suggested that unless activity levels were maintained at 2005 levels then around 40% of infrastructure could be decommissioned by 2020.[4] As facilities are decommissioned the opportunity to produce smaller reservoirs within the 'catchment' area of such facilities disappears leaving stranded reserves. The Oil & Gas UK co-chairs re-stated the challenge in PILOT's 2009 report:

> *'The clock is ticking and, as decommissioning of mature assets advances, so too does the risk that small satellite reserves will remain unexploited if the infrastructure they will have to depend on is removed'.*[5]

The below slide provided by ConocoPhillips[6] illustrates the point.



Modified after Toole, S. , A Government Perspective on Ageing North Sea Installations & Infrastructure, Offshore Europe September 2011

[1]'PILOT' is the joint Government-Industry consultation group.

[2]PILOT's report 2005 entitled *'Maximising Economic Recovery of the UK's Oil and Gas Reserves – The Context for the Brownfield's Challenge'* at p. 3.

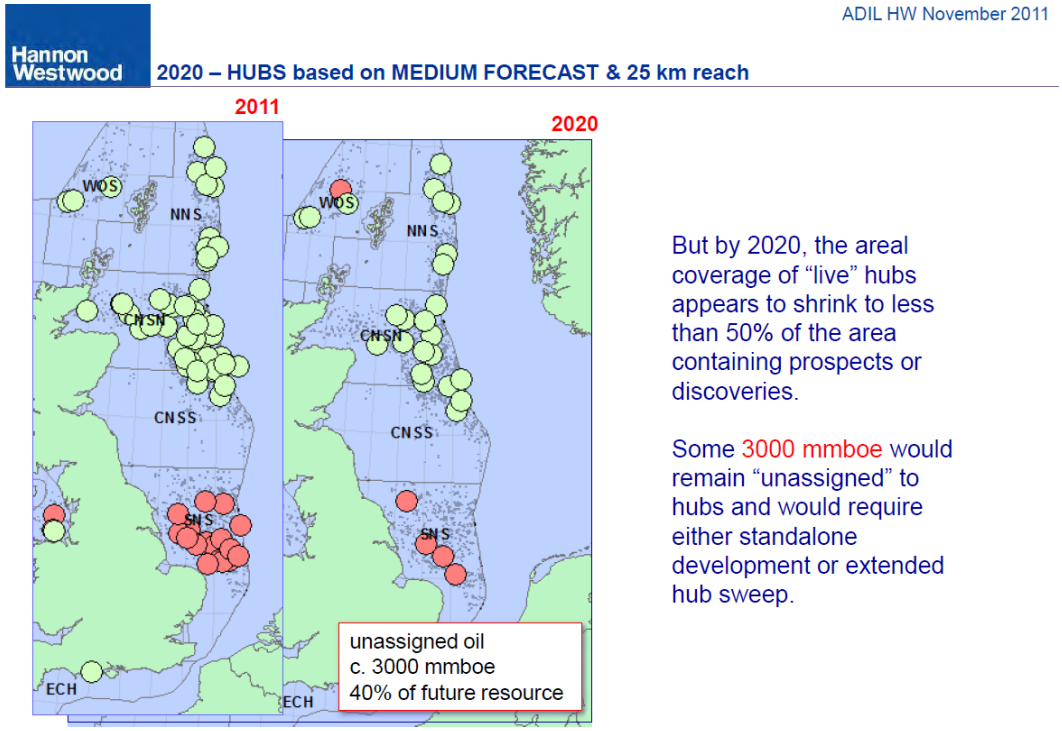
[3]Oil & Gas UK 2011 Activity Report, Page 8-9.

[4]See PILOT report 2005 *Maximising Economic Recoveyr of the UK's Oil and Gas Reserves – Context for the Brownfields Challenge*, p.5 available at http://www.pilottaskforce.co.uk/files/workgroup/1649.pdf

[5]See PILOT Report 2009 *A powerful and effective partnership* p.2

[6]Oil & Gas UK 'Breakfast Briefing', Aberdeen, 25 October 2011.

Data from industry consultant's, Hannon Westwood, suggests that the majority of the 20 billion boe reserve base of the UKCS remains within a 25 km catchment area or, 'sweep,' of existing 'hubs' with the remainder within an extended sweep of 45 km which is technically feasible. The data illustrates that there are regional zones of prospectivity in each of the major UKCS basins each of which have host facilities available to perform the 'sweep'.[7]



However, confirming the fears outlined in Brownfields, as each host facility declines and is decommissioned the remaining reserves fall outside the 25 km sweep so that by 2020 some 3 billion boe might be stranded unless a new strategy is adopted.

2.3 The Appetite for Change

Whilst the contribution of the oil and gas industry is critical to the UK it remains at odds with a powerful environmental lobby. Nevertheless, at the annual reception of the British Offshore Oil & Gas Industry All Party Parliamentary Group[8], the Minister for Energy and Climate Change, Charles Hendry MP, confirmed that Government policy directed towards de-carbonising the UK economy was not inconsistent with a policy of maximising the economic recovery of the UK's reserves and that it was Government policy to extract the last 'drop' from the UKCS.

Security of supply may also drive Government commitment to the industry. There is an increasing recognition that the Government's primary renewable source of energy, wind, can only provide a base load of electricity and does not have the capacity to supply the 'swing' capacity demand that oil and gas fired power stations have traditionally satisfied. In the preface to Howard Rogers' paper *'The Impact of Import Dependency and Wind Generation on the UK Gas Demand*

[7]As presented by Jim Hannon at the Joint presentation by ADIL (Asset Development Improvement Limited) and Hannon Westward at 'Access to Infrastructure; a new approach for the North Sea, Aberdeen, 17 November 2011.

[8]House of Commons, 17 January 2012.

and Security of Supply to 2025' [9], Professor Jonathan Stern, Chairman, Natural Gas Research Programme and Senior Fellow at the Oxford Institute of Energy Studies, commented:

> *'The study suggests that the importance of gas for power generation will remain undiminished until 2025. Although its role may change, gas is likely to be particularly important in respect to ensuring security of supply in the context of increasing wind generation.'*

Stern goes on to express surprise that the strategic role of gas in energy balances continues to be underestimated by many countries, including the UK. Perhaps in recognition of these comments, the UK's House of Commons Energy and Climate Change select committee ('Select Committee') noted in its Report of Session 2008-2009 that:

> *'domestic reserves will almost certainly remain the single most significant contributor to this country's security of energy supply for at least another decade, the final quantities recovered will closely reflect how well or otherwise the Government formulates effective tax, regulation and licensing policy to govern the sector.'*[10]

This demonstrates that the Select Committee recognises that when the UKCS moves into its twilight years accumulations are likely to be uneconomic due to the level of Government take. Under present arrangements the Secretary is empowered to reduce the take of the owners or users when setting terms for facility use but only Her Majesty's Treasury ('HMT') is empowered to agree a reduction in the Government take. In this context, Professor Kemp of Aberdeen University has called for a restructuring of the tax system. He states:

> *'The solution is to redesign the tax system such that it becomes progressive in relation to field profitability. Thus the percentage tax rate on marginal fields would be less than that on more profitable ones'*[11]

A progressive proposal has been put to HMT by the First Minister for Scotland[12] and would mean that investors would be able to earn an agreed return on capital invested before the obligation to pay any supplemental corporate tax ('SCT') would accrue.

In parallel, industry is working closely with Government to provide certainty in respect to the contribution that the Government will make to decommissioning costs, estimated at £30.8 billion of which the Government's share is £22 billion.[13] This initiative may have a significant effect on asset transfers and could place ownership of older assets and related infrastructure in the hands of smaller, less risk averse companies or companies that specialise in facility management or decommissioning without any vertical link to upstream reserves. The commitment will mean HMT will be aligned with industry and have a financial incentive to keep infrastructure in use for as long as possible to push out the cost of decommissioning.

This evidence suggests that Government is alive to the issues facing the industry and that there may be alignment between the two most relevant arms of Government, HMT and, the industry

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[9]Oxford Institute for Energy Studies August 2011. Available at http://www.oxfordenergy.org/wpcms/wp-content/uploads/2011/08/NG-54.pdf

[10]House of Commons Energy and Climate Change Committee Report of First Session 2008-2009 page 3.

[11]See *'A Prize We Cannot Afford to Let Slip'* in *'The Parliamentary Brief, Pouring Troubled Water Over Oil'* July 2011.

[12]UK Continental Shelf Tax Regime – Options for Reform, Scottish Government, June 2011.

[13]See Oil & Gas UK Briefing note, December 2011.

regulator, the Department of Energy and Climate Change ('DECC'), to impose structural and fiscal changes that have the objective of maximising the economic recovery of domestic reserves.

From the oil companies' point of view initiatives that might extend infrastructure life and allow the extraction of more hydrocarbons will be welcomed by owners and users alike. Recent efforts to sell older Southern North Sea systems by BP and ConocoPhillips have been challenging and as returns from the original founding fields decline the value of the supporting infrastructure to the incumbent owners diminishes. Without new volumes infrastructure becomes a liability due to ongoing maintenance costs and decommissioning obligations. However, the aging infrastructure may have incremental value to junior E & P companies that target the smaller remaining accumulations or to specialist infrastructure management companies. These companies will be encouraged to invest by an environment that facilitates the expedited transportation and processing of new volumes that make use of existing infrastructure. The opportunity to capture and monetise the incremental value upon sale will drive alignment with this strategy from the incumbent majors.

3. DEVELOPMENT OF INFRASTRUCTURE USE ON THE UKCS

Historically oil and gas reserves on the UKCS have been extracted by unincorporated joint ventures of international oil companies ('IOCs') holding the applicable upstream petroleum production licence. Field developments were undertaken pursuant to a joint operating agreement ('JOA') agreed between the IOCs. One owner would be chosen to take a leading role in the development as operator for the consortium providing services on a cost pass through 'no gain no loss' basis.

The early big discoveries, such as the Forties, Brent, Ninian and Beryl fields were developed as 'integrated' developments. The size of these 'founding' fields were such that they included the local upstream extraction facilities, such as wellheads connected by pipelines and umbilicals to offshore platforms (a 'host facility'), and, the downstream transportation services by pipelines from the host to onshore processing facilities and the market. These early pipelines were often oversized in order to attract third-party business to reduce the per barrel cost of the development to the founding owners. This practice was also encouraged by the very high rate of tax relief against Petroleum Revenue Tax ('PRT') and corporation tax which included for PRT an uplift of 75% of the investment expenditure incurred.[14]

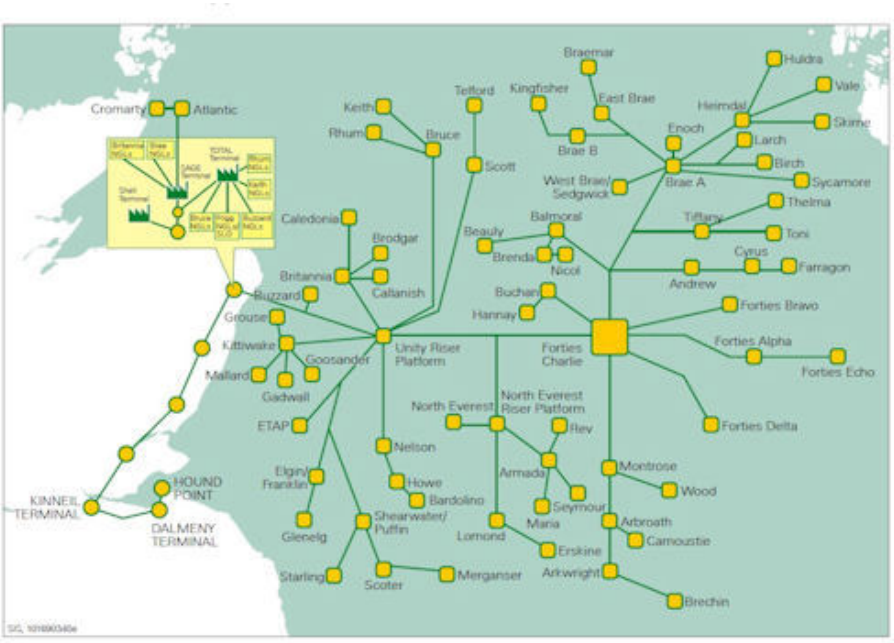
Throughout the eighties and nineties large discoveries, such as the Scott, Brae and Nelson fields were then developed by different consortia. They constructed their own host facilities to provide local extraction operations for the new discovery but then tied into the downstream pipelines at an available tie in point which would deliver production to the onshore processing terminals and thereafter to market.

More recently, as a result of the smaller discoveries being unable to support the cost of developing their own host facility, it has become common to utilise unused capacity in nearby host facilities by tying in new third-party owned fields to a host so that the third-party field owners undertake exploration and appraisal operations but thereafter only provide the well heads and connections back to the host facility. The host then provides operator services to extract production and conduct initial blending and separation services before delivering the resultant stream into an integrated pipeline system for delivery to shore, further treatment, and to market. The below schematic illustrates BP's forties pipeline system ('FPS') connecting to numerous host facilities[15] that in turn connect to other field developments within their geographic 'sweep'.

In the seventies and eighties the Government realised that tariff revenue from third-party business was becoming a profitable business in its own right and moved to impose PRT on tariff receipts thereby reducing the profitability of third-party business. As a result, since that time, it is speculated that most of the major pipeline systems on the UKCS operate under an integrated E & P business model servicing the founding field(s) that funded their development and their larger customers that subsequently tied in. They are not as active in seeking new business and appear content to allow the host facilities that are connected to their pipelines to lead negotiations for new sub-sea tie backs that will eventually be produced through their pipelines. These integrated pipelines with existing customers will normally have a template Transportation and Processing Agreement ('TPA') with standard terms that are applied to all shippers. With the tie-in point being

[14]See Kemp et al, North Sea Study Occasional Paper No. 116 *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)* page 1.

[15]From the BP Forties Pipeline System website: https://www.icmmed0ty.com/fps/content/brochure/brochure.asp?sectionid=6.



The BP Forties Pipeline System

to a host facility that is already connected to the pipeline, the TPA's are commercially, legally and technically less challenging. As a result, Oil & Gas UK has stated that the pipelines 'are not the problem'. Conversely many host facilities are not positioned to undertake third-party business. They commonly do not have draft terms and have various methodologies for calculating tariff, deferred production and the appropriate liability and indemnity regime to apply during the tie-in phase or to deal with a catastrophic 'Macondo' type blow out. To put all this together in a manner that meets with each owner's corporate requirements requires the allocation of scarce resources for what may ultimately be a marginal return.

Nevertheless, where terms are agreed, the local host facility extraction services are provided by the owners to third parties pursuant to transportation, processing and operator services agreements ('TPOSA's) with downstream transportation and processing being undertaken by the pipeline owners pursuant to a TPA. This requires the negotiation of contracts of carriage pursuant to a parallel process, with both the owners of the host and the pipelines both of whom are usually natural monopolies within their geographic market. The conduct of negotiations is regulated in a light-handed manner by voluntary commitments made under the industry's 'Infrastructure Code of Practice' ('ICoP') backstopped by rights contained within the petroleum legislation to apply to the Secretary to set terms where agreement cannot be reached.

4. DEVELOPMENT OF THE PETROLEUM LEGISLATION

4.1 Light-handed Regulation

'Light-handed' regulation is based on the threat of Government intervention providing an incentive on natural monopolies to exercise self-regulation to comply with the general competition law. This process became prominent in New Zealand when, in the early 1980s, it privatised a number of state owned utilities and adopted the general competition law to provide a proxy for a competitive market. The effectiveness of what became known as light-handed regulation was assessed in Simon Cowan's paper prepared for the 2007 Australian Competition and Consumer Regulatory Conference.[16] He concluded:

> *'Light-handed regulation has the straightforward practical advantage that it saves on the resource costs of specific regulation. It probably reduces the danger of regulatory capture. Well-intentioned regulation can produce undesirable outcomes compared to a situation with no regulation, so at least light-handed regulation avoids this unpleasant possibility. The threat of regulation can induce a firm to be cautious about setting high prices, thus achieving some of the desirable outcomes of actual regulation without the attendant costs. On the face of it there are some quite appealing features of light-handed regulation.*
>
> *In practice the verdict on light-handed regulation is rather more mixed. In New Zealand the original light-handed regimes for telecommunications and electricity have been adjusted in the light of experience to include more specific regulation. Access issues in telecommunications appear to be sufficiently complicated, but at the same time so vital for competition, that it is unwise to rely on private bargaining to achieve efficient outcomes. In the case of electricity distribution the introduction of light-handed regulation appeared to give the monopolies concerned an agreeably quiet life, with higher prices and much higher margins' (emphasis added).*

Similarly, in the UK more detailed sector specific legislation applies to the former state owned monopolies to ensure participants act competitively. However, this has not been undertaken for offshore UKCS activity. The underlined part of the passage will undoubtedly resonate with many UKCS participants who consider the regime governing access to infrastructure on the UKCS 'skewed' in favour of the infrastructure owners[17] who are able to act as coercive monopolies[18] in setting the terms. Nevertheless, the experience of light-handed regulation for gas transmission in New Zealand has been viewed as positive but has been said to rely on three elements: (i) competition law; (ii) information disclosure for essential facility services, and (iii) the threat of Government intervention.[19]

It is therefore worthwhile understanding the development of the light-handed approach on the UKCS to assess whether these three elements were imported into the regulatory framework in order that the public interest objective of maximising the economic recovery of UKCS reserves was balanced against the needs of industry.

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[16]Delivered at Surfer's Paradise, Australia, 26 July 2007 and available at http://www.accc.gov.au/content/item.phtml?itemId=793237&nodeId=add211fe3af71923a44b22948d006e81&fn=Cowan+-+Paper.pdf

[17]See comments from OGIA at para 5.1.

[18]See comment from Nigel Wilson of Premier Oil Plc at para 5.1.

[19]Wilson I., Access Arrangements to Gas Pipelines – Maintaining Balance *2002 New Zealand Petroleum Conference Proceedings*, 24-27 February 2002.

4.2 Pre – 1962[20]

Before the Second World War no pipeline of any length existed in the UK but during the war, some 1,000 miles of defence pipelines were built to carry refined oil to aerodromes in south and west England and under the English Channel to France.[21] After the war this Government owned pipeline network was managed on a care and maintenance basis by Shell-Mex and BP. Today the network, known as the Government Pipeline and Storage System, includes up to 2,500 kilometres of pipelines and 46 facilities and is managed by the Oil and Pipelines Agency owned by the Government and constituted pursuant to the Oil and Pipelines Agency Act 1985.

Throughout the 1950s transportation of oil by pipelines became increasingly common whereby a right of way, lease or other use right would be agreed with the land owner in order to use a pipeline corridor. But if agreement with the landowners could not be reached to acquire the rights associated with the use of the pipeline corridor the companies had to promote special Acts of Parliament to obtain compulsory acquisition orders with the principal ones being:

- B.P. Trading Act 1957: for the construction of a sixty mile pipeline to convey crude oil from Milford Haven to Llandarcy.
- Shell (Stanlow to Partington) Act 1958: for the construction of a twenty three mile twin pipeline carrying feedstock for chemical plant.
- Shell-Mex & B.P. (London Airport Pipe-line) Act 1959: for the construction of nine miles of twin pipes under the River Thames.
- Esso Petroleum Co. Act 1961: for the construction of sixty three miles of a 12 inch pipeline from Fawley to London Airport to carry light oils and of seventy six miles of a 6 inch pipeline from Fawley to Avonmouth, for carrying ethylene for use as a feedstock in chemical processes.

In 1960 the Select Parliamentary Committee studied the Esso Bill and recommended a halt on private bills for pipelines with the reason that the private bill procedure allowed insufficient opportunity to protect the interests affected by this kind of development.

4.3 The Pipelines Act 1962

The Minister of Power introduced legislation that resulted in the Pipelines Act 1962 ('PLA 1962'). The PLA 1962 provided for the holding of public enquiries into objections against pipeline projects and that, when a pipeline promoter was unable to obtain the rights needed for his purpose by negotiation, the compulsory acquisition of land or rights could be undertaken. This would be subject to the approval of Parliament, with compensation determined by the Lands Tribunal, a quasi judicial panel specialising in land matters. To limit the disruption caused to the public by a third-party wishing to lay an additional pipeline along the same pipeline corridor third-party rights of access were included that allowed the third-party and pipeline owner to negotiate terms for the use of capacity with a right of referral to the Secretary of State if terms could not be agreed. The legislation was therefore directed to the coordinated development of pipelines and promoted the private negotiation of land acquisition but with a right to refer the terms of capacity use to the Secretary of State should the parties be unable to agree.

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[20]See the '*Evaluation of pipeline easements and way leaves including a description of the Pipelines Act*', 1962 by R. Poole and P. N. Poole, the Estates Gazettes Limited London, 1963, at page 8.

[21]The pipeline under the Channel was known as 'PLUTO' or Pipeline Under the Ocean.

4.4 The Petroleum and Submarine Pipelines Act 1975

Prior to 1975 there was no regulation for access to infrastructure applying to the offshore – a literal *laissez-faire* approach.[22] But with the discovery of significant hydrocarbon reserves in the UK North Sea the Labour Government of 1974-1979 moved to acquire a significant ownership interest in each production licence, including those that supported the producing fields such as Brent, Forties, Beryl and Ninian, and pursued a policy of greater Government control of the industry generally. This resulted in the formation of the British National Oil Corporation ('BNOC') pursuant to the Petroleum and Submarine Pipelines Act 1975 ('PSPA 1975'). The Lord's debates[23] at the time reveal that the Government intended for BNOC to take a 51% working interest in each producing field and all existing and future licences.

For pipelines the powers of the Secretary to set terms for the use of onshore pipelines by third parties were imported into the offshore by way of section 23 of the PSPA 1975. The Government argued that the compulsory use rights were designed to protect the fishing industry from the proliferation of pipelines across the continental shelf[24] in the same manner as the equivalent provisions of the PLA 1962 protected the roads and country side. There was debate in the Lords that expressed concern that the Secretary may favour one licensee over another and that the determination of terms may not be made purely on commercial grounds.[25] Lord Balogh was at pains to confirm he was not suggesting the Government would act in a Machiavellian manner, but it was clear that the legislation had the capacity to ensure that if BNOC needed access to submarine pipelines to evacuate its petroleum and negotiations with a pipeline owner became protracted, then the Secretary could set the terms. Concern was also expressed as to the Secretary's ability to set terms in such a commercially and technically complicated area, in particular if the expertise of BNOC was not to be used. These concerns were restated by some industry participants in 2001.[26]

Nevertheless, the legislation was enacted and built on the language from the PLA 1962. Under the Oil and Gas (Enterprise) Act 1982 the definition of 'pipeline' was extended to include associated apparatus which the industry accepted included processing equipment offshore.[27] There does not appear to have been any debate focusing on the appropriateness of the PLA 1962's framework which was primarily designed to minimise Government intervention in disputes over land and use rights between private citizens. Conversely, in the case of North Sea oil, the Government would have a significant commercial interest, for and on behalf of the public, and was likely to be an active participant through its participation in BNOC.

4.5 The Petroleum Act 1998

The role of BNOC was diminished with the change back to a Conservative Government in 1979. BNOC's assets were transferred to a newly floated company, Britoil Plc, and the provisions

[22] *laissez-faire* is a regulatory approach where Government leaves negotiations entirely to private citizens.

[23] The House of Lords debate 15 October 1975 volume 364 c933. http://hansard.millbanksystems.com/lords/1975/oct/15/petroleum-and-submarine-pipe-lines-bill-1#column_933

[24] House of Commons debate 30 April 1975 volume 891 C 563, http://hansard.millbanksystems.com/commons/1975/apr/30/petroleum-and-submarine-pipe-lines-bill.

[25] The House of Lords debate 15 October 1975 volume 364 c933. http://hansard.millbanksystems.com/lords/1975/oct/15/petroleum-and-submarine-pipe-lines-bill-1#column_933

[26] See *Summary of responses to the Department of Trade and Industry consultation on proposals for guidance on use of legal powers to settle disputes over third-party access to infrastructure* Available at https://www.og.decc.gov.uk/consultations/og_infrastructure/summresponse.doc

[27] See Annex A, para. 2, Infrastructure Code of Practice (1996).

relating to BNOC in the PSPA 1975 became dormant. The Petroleum Act 1998 ('PA 1998') consolidated the existing licensing legislation which had remained based on the Petroleum Production Act 1934. Despite the removal of the state participant, BNOC, the provisions addressing third-party access rights in the PSPA 1975 were re-enacted by section 17 of the PA 1998 without material alteration. In particular no consideration was given as to whether the framework was appropriate to achieve DECC's primary goal of maximising the economic recovery of its indigenous hydrocarbon reserves. With the removal of BNOC, the industry switched from being capable of heavy influence by Government policy to a light-handed regulatory approach reliant on bilateral negotiation between private citizens that, due to information asymmetry, were heavily weighted in favour of the natural monopoly infrastructure owners. It is not clear whether this was recognised and understood or was an unintended consequence.

4.6 The EU Gas Directives

In 1998 the EU's First Gas Directive[28] required Parliament to reconsider the purpose of its petroleum legislation in this area. It required Member States to take such steps as appropriate to ensure the open and non-discriminatory access to upstream petroleum pipelines which explicitly excludes host facilities. Notwithstanding this review of the statutory process and the clear difference from the purposes discussed in the 1975 Lord's Debate, the new provisions inserted by Parliament in response were largely a restatement of the existing provisions designed to prevent the non-proliferation of pipelines and failed to mention any of the language of the First Gas Directive surrounding the goal of open and non-discriminatory access. The First Gas Directive was implemented by the Gas (Third Party Access Rights and Accounts) Regulations of 2000 by the inclusion of section 17F of the PA 1998, section 10E of the PLA 1962 and amendments to section 12 of the Gas Act 1995 that deals with the use of gas processing facilities. In respect to offshore upstream petroleum pipelines the new section, 17F of the PA 1998, provided for rights to apply to the Secretary to set terms for access to a 'controlled' petroleum pipeline which is a petroleum pipeline in waters controlled under the Continental Shelf Act 1964 or within the UK territorial sea. The insertion was not materially different to the existing section 17 that applied to controlled pipelines (i.e. petroleum or other ones) but included certain reservations on the application of the PA 1998 that the First Gas Directive suggested were appropriate. The First Gas Directive explicitly excluded host facilities from its application so it became unclear whether section 17F applied to upstream processing facilities as earlier understood. In addition due to a small, but important, alteration to the Gas Act 1995 only gas processing facilities connected by pipe to the National Transmission System ('NTS') were subject to access rights thereby limiting the scope largely to onshore gas processing facilities. As such, the area became complicated and less clear due to the several objectives that the legislation was now directed towards.

4.7 The Energy Act 2008

The Energy Act 2008 brought some clarity by providing explicitly for a similar right and process for applicants seeking access to 'oil processing facilities' such as offshore host facilities. This legislation was not so much directed at non-proliferation but rather at securing access rights to facilities on reasonable terms to provide a more cost effective field development.

However, the structure of the new legislation borrowed from the previous legislation that required the exhaustion of negotiations by the parties without Government involvement as if the Government was still the independent arbiter it was under the PLA 1962. It was implemented as

[28]The provisions of the First Gas Directive dealing with upstream pipelines have been restated by identical provisions in the Second and now the Third Gas Directive.

an additional piece of legislation so that the petroleum legislation directed at access to infrastructure was then contained within 4 enactments: the Pipelines Act 1962, for onshore petroleum pipelines; the Petroleum Act 1998 for offshore 'controlled' petroleum pipelines; the Gas Act 1995 for onshore gas processing facilities and the Energy Act 2008 for oil processing facilities. Whilst the structure of the legislation was broadly the same there were subtle but important differences between the legislation that complicated an application to use a whole system as opposed to just a part.

4.8 The Energy Act 2011

With the commencement of the Energy Act 2011, expected in early 2012, the previous legislation in this area has been repealed and consolidated so that such subtle differences do not create barriers to the effectiveness of the Secretary to set terms. Information asymmetry is addressed with the inclusion of powers to obtain sufficient information, including financial information, in order to make a determination and penalties should the information provided be false. These powers can be utilised at the Secretary's discretion anytime after negotiations have commenced and will allow DECC an early opportunity to assess what terms it may set were the Secretary to intervene. Supplementing these powers is a new power for the Secretary to intervene on his own initiative which, it is hoped, will mitigate the stigma the UK Offshore Operator's Association ('UKOOA') reportedly note[29] was associated with making an application and described as the 'shy applicant' by UKOOA's successor, Oil & Gas UK, when giving evidence to the Select Committee. In this manner the Energy Act 2011 has the capability to ensure that DECC are involved in negotiations early, have access to all relevant data and, can act to make a determination should the Secretary exercise his discretion to do so.

Under English law this discretion imposes a duty on the Secretary to give proper consideration as to whether he should intervene whereas previously there was no power, or obligation, to do so until asked. Under section 31 of the Senior Courts Act 1981 the exercise of this discretion, or failure to do so, may be subject to judicial review by a claimant that is able to demonstrate a sufficient interest in the decision.[30] This could result in applications for judicial review where the Secretary hasn't intervened from downstream pipeline owners, other licensees, or shareholders concerned about project delay. Whilst it is hoped that Government will ensure that DECC are resourced in order that the Secretary may properly discharge this new duty the impact assessment provided by DECC did not suggest any additional resources would be immediately required.[31]

4.9 The DECC Guidance

In April 2009 DECC issued its guidance ('Guidance') on how it would expect to deal with applications made under the petroleum legislation. It is due to be updated in early 2012 to reflect the new powers under the Energy Act 2011. This Guidance expanded on proposals issued as part of a wider consultation dealing with the effectiveness of ICoP and the effect of the First Gas Directive in February 2001.[32] DECC reaffirmed commitments made in the 1975 Lord's Debates even though the context in which those commitments were made are far removed from the

[29]Daintith et al para. 1-733.

[30]Woolf et al, *De Smith Judicial Review* 6th ed. (2009).

[31]See *Reform of the resolving disputes over third party access to and for compulsory modifications of upstream petroleum infrastructure (Energy Bill 2010): Impact Assessment* (December 2010) .

[32]See Consultation on *Access Provisions and Voluntary Arrangements, Main Consultation Document*, Chapter 4.

challenges facing the UKCS in the 21st century. DECC posed four scenarios that they consider are the most likely where the Secretary may be called upon to act:

(a) 'Terms for infrastructure built as part of an integrated field development project.'

Where spare capacity can be made available in infrastructure that has already, or is forecast, to have already provided a return on capital (including a profit element) to its owners, then DECC would set terms that reflect the incremental costs and risks imposed on the infrastructure owners.

This focuses purely on compensation for the marginal costs and risks over and above that already payable, or forecast to be payable, by the host and appears to rule out any profit element. DECC go on to note, however, that they would consider a cost share arrangement (for example sharing costs according to production share) when the host is close to being decommissioned to enable the host and user to continue producing. Under economic theory, this is a tariff calculation based on the marginal costs but with flexibility to move to an average cost share methodology.

(b) 'Terms for infrastructure built, maintained or oversized with a view to taking third-party business.'

For infrastructure that is developed to take third-party business, DECC would allow the infrastructure owners to recover their incremental costs and risks but also recover the capital expended to be able to take third-party business including a profit element.

This structure rewards capital invested for third-party business by the return of that capital with an uplift to reflect a profit element. This type of structure, known as 'cost-of-service', is common practice in North America[33] where carriers offer to fund, design, build and operate the third-party facilities. In return the operating costs are recovered and they secure tolls that provide for a return of capital with uplift representing a finance charge that is amortised into a per barrel tariff over the plateau production period. This structure would also allow the recovery of costs expended in preparation of third-party business for example, engineering studies or legal and commercial consultants' fees in developing standard terms and tariff principles.

(c) 'Terms where there is competition for limited capacity.'

On occasion DECC recognise that there may be competition between users to use limited capacity. In this case DECC would be unlikely to require the infrastructure owner to make capacity available to a user that values the capacity less than a competitor. However, it should be remembered that DECC now have the power to require the modification of facilities to increase its capacity. These would typically be for the cost of the user field but if paid for by the host would enable compensation in accordance with scenario 2 as an investment in third-party business.

(d) 'Terms set to cover the cost of displacement of own production or contractual commitments.'

[33] See Section 6.4 for an insight into the Canadian structure.

In circumstances where there is insufficient capacity available to take a new user's production the Secretary is unlikely to set terms for access. Were he to do so the costs would reflect the costs of backing out the infrastructure owners' own production or another party's with contractual rights of access. DECC describe these costs as 'opportunity costs' which acknowledges that 'backed out' production does not mean production is lost, rather deferred. What is lost is the opportunity to earn a return on capital from investing the cash flow generated by the production – the 'opportunity cost'.

Under English law the effect of issuing the Guidance is that DECC are providing a 'legitimate expectation' that the Secretary will respond to applications in the manner provided in the guidance. This allows a disaffected party to apply to the Courts for judicial review of any decision of the Secretary that is inconsistent with the Guidance.[34]

4.10 The Competition Act 1998

The competition law is critical to effective light-handed regulation of natural monopolies and accordingly it is worth noting the application of the Competition Act 1998 ('CA 1998') and the preceding EU legislation that now falls under Articles 101 and 102 of the Treaty on the Functioning of the European Union (formerly the Treaty of Rome). In 1994 the Government expressed concerns about infrastructure owners having a regional monopoly and being able to charge a disproportionately high tariff for carrier services. This resulted in the development of ICoP in 1996 as a self-regulatory tool to prevent the abuse by these natural monopolies of their dominant positions. The European Commission cases against Gaz de France and E.On Gas[35] involving gas transmission system operators allegedly protecting their upstream interests and their commitments to relinquish their system operatorships highlights the effectiveness of the competition law in preventing this behaviour. Indeed DECC mention in their Guidance[36] that an applicant could approach the OFT, the UK competition regulator, as an alternate to approaching the Secretary under the petroleum legislation.

The OFT has the power to fine a company that breaches the CA 1998 up to 10% of its global turnover providing a powerful incentive for compliance. However, whilst theoretically an infrastructure owner might have a geographical monopoly on the provision of transportation and processing services, in practice the applicant may need to demonstrate an effect on a related market, for example an effect on the price of crude oil or downstream pipeline terms, both of which are possible but uncertain until tested by the Courts. The OFT also have the power to conduct a 'market survey' which could provide guidance as to how they would deal with a claim of anti–competitive conduct in the offshore. For example the guidance on the application of the CA 1998 in the telecommunications sector[37] has detailed advice on whether each of excessive pricing, a refusal to deal, refusal to provide information, refusal to provide access to facilities and a refusal on discriminatory grounds amount to a breach. All of these are key issues in the offshore and clarity on how the OFT would deal with them, if at all, would be welcome. However, notwithstanding that one of the OFT's roles is to provide advice to the Secretary of State,[38] the

[34]See article by Jenkins J. and Hull J., *Offshore Infrastructure: Legitmate Expectations of Third Party Users* (June 2011) available online at www.memerycrystal.com.

[35]See Commission decisions Case Comp/39.317 – E.ON Gas and Case Comp/39.316 – Gas de France. Also see commitments made by Eni, *Antitrust: Commission welcomes ENI's structural remedies proposal to increase competition in the Italian gas market* Brussels, 4 February 2010.

[36]See paragraph 13-18 of the DECC Guidance.

[37]See for example OFT's guidance in respect to Access to Telecommunications infrastructure available at http://www.oft.gov.uk/shared_oft/business_leaflets/ca98_guidelines/oft417.pdf.

[38]Section 7 Enterprise Act 2002.

OFT rarely take on 'business to business' cases and instead focus on consumer issues.[39] As such, in this area the light-handed regulation is not adequately supported by the competition law.

4.11 The Infrastructure Code of Practice

As noted above, in 1994 the Government set out concerns that infrastructure owners were in a position of dominance and could therefore charge disproportionately high fees. This was delaying negotiations and reducing value to smaller fields dependant on utilising existing infrastructure. At that time the CA 1998 was not in force and the OFT had yet to be established. Accordingly, a joint work group formed from industry representatives and the Department of Trade and Industry ('DTI') (a predecessor to DECC), known as the D'Ancona committee, was formed to consider whether regulatory measures should be adopted or whether self regulation would work. Eventually, the ICoP was introduced to the industry in 1996[40] and attempted to address information asymmetry by requiring owners to maintain a properly substantiated and extensive database of relevant technical and financial information to be disclosed to any enquirer seeking capacity along with indicative terms including tariff and pricing information. However feedback, directly from one infrastructure owner's representative and corroborated indirectly from another,[41] suggest that the infrastructure owners were mandated by their organisations to produce a process that would suffice to satisfy the Government but would not commit them to anything in respect to the use of their infrastructure.

In 2003 it was felt the ICoP was not working and was ineffective in facilitating PILOT's strategy of securing access to the infrastructure necessary for the development of small fields and it was revised in 2004.

The revised ICoP removed the requirement to post non-binding indicative terms for the use of facilities as the value of such terms was considered low due to their speculative nature.[42] In addition the obligation to maintain a technical and financial database for disclosure was abandoned. Instead, a commitment to publish agreed terms was incorporated and a commitment to adhere to more generic principles was substituted. The key principles are that:

(1) the parties will follow the industry's Commercial Code of Conduct;[43]

(2) the parties will provide meaningful information to each other during negotiations;

(3) the parties support negotiated access in a timely manner;

(4) the parties undertake to ultimately settle continuing disputes with an automatic referral to the Secretary;

(5) parties resolve conflicts of interest;

(6) infrastructure owners provide transparent and non-discriminatory access;

(7) infrastructure owners provide tariffs and terms for unbundled services where requested;

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[39]Comment from Robert O'Donoghue, Brick Court, and author of *The Law and Economics of Article 82 EC* at '*Access to Infrastructure'* seminar hosted by Memery Crystal LLP on 30 June 2011, London.

[40]Daintith et al para. 1-733.

[41]Interview conducted 13 July 2011. Indirect feedback received 1 December 2011.

[42]See the Consultation on Access Privisons and Voluntary Arrangements, Annex 2-5, Offshore Infrastructure Code of Practice: Interim Review (1997).

[43]This is another voluntary industry code that provides for high level principles to regulate negotiating behaviours.

(8) parties seek to agree fair and reasonable terms where risks taken are reflected in rewards; and

(9) parties publish key, agreed commercial provisions.

Commitments to timely negotiations are provided where the parties agree a timetable and structure for the negotiations for access to infrastructure with the matter being referred to the Secretary pursuant to an Automatic Referral Notice or 'ARN' process being activated if the negotiations have not concluded within 6 months.

In this manner ICoP seeks to regulate negotiating behaviour from the start of the process by messaging the likely outcome of a regulatory determination by either the Secretary or OFT. However, like the DECC Guidance, whilst final tariff is published, the revised ICoP is unspecific as to the methodology to be used in its construction and what are agreed industry norms in respect to other terms such as compensation for deferred production and liabilities. As such the process still relies on a significant amount of goodwill that can only be guaranteed where there is sufficient commercial interest for the infrastructure owners. There is no role for Government to approve the final terms, and how they were arrived at, as being in the public interest or otherwise and there remains no penalty for not complying with the ICoP or sanctions within the petroleum legislation to regulate behaviour. The minimum outcome for infrastructure owners is that terms are set as if in a competitive environment and they may apply for judicial review if this is not the case.

5. EFFECTIVENESS OF THE PETROLEUM LEGISLATION

5.1 ICoP

The effectiveness of ICoP has been viewed with limited success. The initial feedback from a 1997 interim review was positive although it should be noted that the 11 respondents, although users as well, were all major infrastructure owners.[44] It was then revised in 2004 although it would appear that the revised ICoP was less onerous for owners than the original. In DECC's 2008 report dealing with the effectiveness of the Commercial Code of Practice, ('CCoP'), the compliance with which is integral to the proper operation of the ICoP, one conclusion was that:

> *'The overall picture is that there has not been any significant improvement in commercial performance.'*

Other data from the same publication noted incidences of abuse of position and an overall general response from Licensees that improvement would be facilitated by obtaining a 'fair deal'.[45]

DECC have 'accepted there were problems with the Code'[46] but the Oil and Gas Independent's Association ('OGIA') which is more representative of smaller organisations wanting access to infrastructure went further:

> *'The current voluntary Infrastructure Code of Practice (ICOP) is NOT[47] making any significant differences and many bad behaviours and practices still remain. This actively discourages exploration and appraisal for new fields as the risk reward balance is significantly skewed in favour of the infrastructure owner rather than the risk taker. Legislation for guaranteed access terms or 'common carrier' status should be seriously considered.'* [48]

The Select Committee concluded in its Report of Session 2008-2009 that:

> ***'Smaller companies in particular are having difficulties accessing the infrastructure they require in order to produce oil and gas because in some cases of unrealistic demands by the infrastructure's owners. The industry's voluntary Code of Practice is not working well in this respect.***
>
> ***If a voluntary code cannot be made to work more effectively serious consideration should be given to introducing a common carrier system.'*** [49]

The 2009 PILOT report stated:

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[44]See Consultation on Access Provisions and Voluntary Arrangements, Annex 2-5, Offshore Infrastrucutre Code of Practrice: Interim Review (1997).

[45]DECC's, *UKCS Commercial Code of Practice (CCoP) Survey of Transactions Conducted by UKCS Licensees during 2008 – Summary of Findings*, pp 2-9.

[46]Report of First Session 2008-2009 para 43.

[47]Capitalised letters are from the original text.

[48]Report of First Session 2008-2009 para 40.

[49]Report of First Session 2008-2009 para 44. Emphasis from original text.

'The work group identified compliance with the codes of practice to be an issue, and have enlisted help from the Energy Minister who wrote to all UKCS operators setting a number of challenges.' [50]

These 'challenges' included a reconfirmation of support for the various industry codes, including the ICoP. However, at an Oil & Gas UK breakfast briefing in April 2011, Premier Oil's North Sea and West Africa Business Unit manager, Nigel Wilson, stated in his address that ICoP was not working and that it was a 'system of coercive monopolies'.[51] In response to a written question he went on to agree that there might be a case for further Government involvement either through the OFT or DECC.

The effect of a monopoly position coupled with vertical integration was considered by Kemp in his paper *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS).* His analysis noted that:

'the pricing of access to infrastructure and the efficiency of market outcomes may be further complicated when, as in many cases, there is also partial vertical integration.' [52]

He observes, among other distortions, that vertical integration allows implicit profits from field operation to be set against the fixed cost of the common infrastructure.[53] This incentivises the owner to make infrastructure decisions that favour its own production and distorts the true risk and reward of providing carrier services, complicating the assessment of what amounts to a competitive market price.

Without a proxy for the market to ensure that participants are pricing risk and reward appropriately, ICoP on its own is unlikely to deliver a gathering system that provides competitively priced terms that are predictable through objective economic analysis. Ironically, the commitments under the original ICoP, directed at resolving information asymmetry, are key to establishing the competitive market and are a significant part of the success that voluntary arrangements have had elsewhere.[54]

The objective evidence suggests that whilst some improvements have been observed, self-regulation under ICoP has not been successful in delivering expedited and open access to infrastructure and without modification coupled with Government support will fail to maximise the economic recovery of reserves on the UKCS.

5.2 The Petroleum Legislation

Whilst the effectiveness of ICoP continues to be an issue, so too does the threat of regulation by reference to the Secretary under the petroleum legislation. Oil & Gas UK, in evidence to the Select Committee, commented that the ARN process, that was intended to provide the threat of Government intervention, was 'not working well'. As a result another one of the key ingredients

[50] PILOT 2009 Report page 10.

[51] Oil & Gas UK Aberdeen Breakfast Briefing, 29 April 2011.

[52] Kemp et al, *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)* Occasional Paper No. 116 (July 2010) page 7.

[53] Above page 13.

[54] See commentary on the Dutch and Alberta/Federal Canadian jurisdictions in para. 7.

for effective light-handed regulation, the threat of Government intervention, also appears to be inadequate. DECC confirmed to the Select Committee[55] that the Secretary had yet to make a determination to date notwithstanding that the legislation had been in force since 1975. Since giving that evidence DECC has received 2 applications seeking intervention by the Secretary to set terms that are considered in more detail below.

The new powers and consequent duties of the Secretary to intervene on his own initiative has the capacity to address the perception that the ICoP is not adequately supported by the threat of Government regulation. However, it is worth reviewing the process that is involved in negotiating terms for access and the practicalities of a backstopping process that relies on certainty being obtained at the end rather than the beginning.

Process

Business investment principles state that capital invested needs to be repaid at a future time with an uplift reflecting the investor's cost of capital. If the time for that repayment is in any way delayed then value is lost to the investor because he does not receive the revenue with uplift until a later time once production has started. A one year delay means that the net present value ('NPV') of the project is reduced by the investor's annual cost of capital.

Upon making a discovery, the most economic option will usually be to tie back to the host facility that is closest geographically to reduce the time and cost of laying unnecessary pipelines on the sea floor or funding an entirely new host facility, such as an FPSO.[56] However, on the UKCS there are times during the year in which it is safe to undertake certain types of work. For example laying new pipe and connections to the host are normally done in the Summer. Planning for this work must be undertaken and long lead items ordered many months in advance. In addition, if the host needs to be shut down whilst the connection work is undertaken then the time to undertake the work will ideally coincide with the host's periodic shut down for maintenance so that compensation for deferred production can be minimised. If these 'windows' are missed then it is likely to be another year or more before production can commence and provide a return to investors.

Whilst it must be acknowledged that some users have unrealistic expectations it is here that information asymmetry undermines competitive pricing. The hosts know when they will be undertaking their maintenance, how many bed spaces there will be available during the maintenance period and have access to all technical and financial information relating to the services to be provided. This technical information is necessary in order to understand if the host is available or suitable and the financial information is needed to understand the cost of service and construct a fair and non-discriminatory tariff. However, this information can be withheld or manipulated to meet the hosts' purposes. Once long lead items are ordered then the user has no negotiating position left – it simply must accept whatever the host demands or else pay costly termination fees. If they terminate or don't put the order in at all then the window of opportunity is lost and the investors will wait another year at least before obtaining a return. This is where the negotiations are said to be 'skewed'[57] in favour of the infrastructure owners, whose investors are not constrained by time to conclude negotiations, and provides an opportunity to extract a maximum of economic rent from the development rather than set tariffs reflective of a competitive

[55]Report of First Session 2008 – 2009 para 41.

[56]Floating, Production, Storage and Offloading vessel, often a converted oil tanker, which can act as a host facility to provide local extraction operations.

[57]See paragraph 5.1 above.

environment. By the time the negotiations get to a point where a user feels it has no option but to involve the Secretary it is usually too late as the process envisages over a month for submissions and responses followed by at least 10 weeks to make a decision after which it may be too late to order the necessary long lead items even if the determination is helpful. If the Secretary is involved too early then the risk is that the owners will see this as an aggressive move and may put barriers in the way of an early settlement or fast track decision. Without any penalty for such behaviour the 'shy applicant' syndrome prevails that either ends in capitulation to the owner's demands or delay to the project.

Added to this are the complications brought about by the potential for judicial review of the Secretary's decision. Because the determination by the Secretary is a decision by a public official it is open for review by the Courts. Even if the Secretary's decision is made in a timely manner the final decision could be held up in judicial review proceedings that, whether successful or otherwise, can take many months meaning the window is missed with resultant delay and loss of value.

Rochelle

The Rochelle field owners sought use rights for the Scott platform and the gas pipeline connecting Scott to the Southern Area Gas Evacuation ('SAGE') pipeline that was constructed as part of the Beryl field development. The application was filed in April 2010[58] and withdrawn in April 2011 after terms were agreed.

While the application was under consideration, Rochelle's reserves were reassessed upwards after successful drilling which additionally brought another Scott owner into the negotiations as a Rochelle owner due to their equity ownership in the new reserves.[59] Whilst a negotiated agreement was concluded the inflexibility of the statutory process to deal with common changes in circumstances affecting both parties while the application was under consideration was highlighted.

The Rochelle development was stated[60] to have been delayed by a year due to the inability to conclude access terms losing NPV for the Rochelle owners but also for the Scott owners who deferred tariff revenue over the lost year as well. Gas will be transported away from Scott by SAGE and Rochelle's liquids by the FPS where both systems will obtain tariff revenue from the project. When asked whether the operators of these two pipeline systems were concerned at lost NPV due to the year's delay in receiving tariff income the response indicated that the issue wasn't approached in that manner by the pipeline owners inferring that little concern was expressed by either operator.[61] This comment highlights the difference in approach between a pipeline carrier company that relies on shipping new production and an E & P company managing its pipeline as part of its integrated E & P business. On the one hand a carrier would be highly motivated to ensure Rochelle was developed and producing as quickly as technically possible and would almost certainly have put pressure on the Scott and Rochelle owners to conclude a deal whereas an E & P company would only be concerned if it was its own equity production at stake.

[58]See Endeavour International Q1 2010 Transcript of Earnings Call available at http://seekingalpha.com/article/204069-endeavour-international-corporation-q1-2010-earnings-call-transcript.

[59]See Premier Oil Plc's 2011 half yearly Management Statement available at http://www.investegate.co.uk/article.aspx?id=20110825070023998 9M.

[60]Hywel Evans, Endeavour International, at *Access to Infrastructure on the UKCS* seminar hosted by Memery Crystal LLP, London, 30 June 2011.

[61]Hywel Evans and Nick Pogson, Endeavour International.

Bacchus

The second application was submitted by the Bacchus field owners for access to the FPS. That application is still under consideration and whilst the details of the application remain confidential it is known that the application was submitted in February 2011 and accordingly DECC have already moved past their 10 week timetable for a determination given in their Guidance.

Observations — Petroleum Legislation

Notwithstanding that the Secretary has never made a determination to date important lessons have been learnt about the practical aspects of using the legislation and the application of the DECC Guidance. For example, it is arguable that access to offshore oil installations under the Energy Act 2008 will not apply to a gas field development that would typically need to use gas processing facilities as these are only recognised under the Gas Act 1995 which, courtesy of the amendments brought about to effect the First Gas Directive, does not apply to the offshore. Similarly, the old language from the PLA 1962 that envisaged an application being made by a person that was not an 'owner' of the pipeline, created problems as it is common for at least one of the user field owners to be a part owner of the nearby infrastructure. Finally, the powers to compulsorily modify a pipeline in the PA 1998 do not apply to the modification of oil and gas installations which makes an access application unworkable if modifications need to be done to the platform.

The lack of use of the statutory powers may be a signal that the legislation is 'bad' law in that it is either unnecessary or practically unworkable. In the absence of a state participant to champion the public interest there appears to be a definite need for Government intervention but the regime to date has not contained the necessary ingredients for effective light-handed regulation: competition law; information disclosure; and the threat of Government intervention (although this may be ameliorated by the new powers in the Energy Act 2011). As a result the petroleum legislation does not provide the certainty needed to investors to backstop negotiations under ICoP in a timely and predictable manner.

In the context of the PSPA 1975 had BNOC continued and acquired a significant working interest in each producing field then many of the practical issues observed today would be mitigated. BNOC was expected to have a headcount of 800 staff by 1980[62] and, if it had continued as understood during the Lord's Debate, it would be involved in the negotiations as a carrier and a shipper eliminating the information asymmetry issue. As the representative of the Government, it could be relied upon to provide fit for purpose advice in respect to the key issues and facilitate a timely decision from the Secretary that would have a better chance of working in practice.[63] This appears to be a major strength of the Dutch system, considered in more detail below, where the state participant, EBN, with between a 40% and 50% interest in both user field and infrastructure encourages the adoption of an industry standard framework for the setting of terms. Accordingly, it could be concluded that from the time that BNOC was rendered ineffective the framework envisaged by the PSPA 1975 was weakened considerably by the absence of an active Government representative throughout the negotiations. Whilst DECC have recently been more active in facilitating negotiations, and the competency and

[62]Hansard, 30 April 1975, Col 508 ttp://hansard.millbanksystems.com/commons/1975/apr/30/petroleum-and-submarine-pipe-lines-bill.

[63]As envisaged in the Lord's Debate, see Hansard 30 April 1975 Col. 490 http://hansard.millbanksystems.com/commons/1975/apr/30/petroleum-and-submarine-pipe-lines-bill.

dedication of the incumbent staff is beyond question, Government to date has not resourced it sufficiently in this area to replace the resources that a BNOC or EBN would bring to assist the Secretary in resolving access issues. The comments made in the Lord's Debate[64] about Government resources, in the absence of BNOC, to practically manage the complicated matter of capacity sharing and compensation appear to be well founded.

DECC have suggested[65] informally that they intend to give the new legislation a year or more to see whether behaviours improve. However, whilst the new powers of intervention have the potential to modify behaviour it needs to be coupled with measures that address the practical issue of timely intervention and, in particular, an increase in the DECC resources to manage this extended workscope.

[64]See Hansard 30 April 1975, Col. 507-508. http://hansard.millbanksystems.com/commons/1975/apr/30/petroleum-and-submarine-pipe-lines-billhttp://hansard.millbanksystems.com/commons/1975/apr/30/petroleum-and-submarine-pipe-lines-bill

[65]Comment by Robert White, Infrastructure Manager for DECC, at an Oil & Gas UK breakfast briefing, London 25 November 2011.

6. OTHER OIL AND GAS JURISDICTIONS

6.1 Denmark/Norway

The position in respect to accessing host facilities and oil pipelines in Denmark is now regulated by Executive Order 1132 on the Use of Facilities, etc, by Third Parties, which came into force on 5 December 2011. The Danish Energy Agency ('DEA') confirm that the Order was heavily influenced by equivalent provisions in the Norwegian legislation that have been effective since 2006.[66] Aside from differences that are likely the result of the English translations the substance of the provisions are almost identical. As such, they are summarised below together. However, in discussions with the Norwegian Ministry of Petroleum and Energy ('MPE')[67] it was stated that prior to the Norwegian provisions being given the effect of law in 2006 access to the relevant facilities was regulated solely by a voluntary framework that had been constructed by the major oil companies at the request of the MPE. As in the UK, this framework did little to eradicate anti-monopolistic behaviour and in 'frustration' the MPE introduced regulatory measures to modify negotiating behaviour.

The scope of the legislation in both Norway and Denmark excludes upstream petroleum networks that refer to gas pipelines and facilities downstream of local gas gathering host facilities that are the subject of the Gas Directives.

General

In general a user shall have a right to use a facility on objective and non-discriminatory terms without granting one or more companies an unfair advantage. This prohibition includes providing preferential terms to a user due to their ownership interest in the infrastructure. In addition, terms should reflect the principle that profits from third-party production shall primarily accrue to the user field owners.

Capacity Requests

The negotiation process commences with a 'request for overview of capacity' where potential users are seeking information as to capacity availability. Here owners are required to respond to user requests concerning available capacity within 15 working days. This may be followed by a more detailed request that appears to be the equivalent of the UK's 'statement of requirements'. Owner replies to such requests shall be 'satisfactory, adequate and appropriate and shall reflect the information requested'. The owner shall as a minimum provide information about the services that can be supplied, provisos, priority, responsibilities and liabilities, and an indicative tariff as well as other relevant information. The owner shall reply to the request within 'a reasonable time from its receipt.'

Negotiations

Thereafter a negotiation plan for agreeing terms shall be agreed including a time limit for the conclusion of negotiations. In Denmark, the negotiation plan should be available one month after the owner and users have decided to enter into negotiations and 'as soon as possible' in Norway.

[66]Confirmed by email from Lene Dalsgaard of the DEA, 6 January 2012.

[67]Confirmed by teleconference with Erik Johnsen et al, Deputy Director of the MPE, 4 January 2012.

The negotiation plan, once agreed, will be submitted to the respective authorities. Thereafter, the owner will grant the user access to all existing agreements concerning the use of the facility and the negotiations should conclude by no later than 4 months (Norway) and 6 months (Denmark).

The owner and user shall seek to agree on terms and conditions and, if requested by the user, the owner shall offer terms and conditions including tariffs separately for each of the services, unless there are clear economic benefits to do otherwise with a separate offer being made for the use of downstream oil or gas transportation pipelines.

Terms

When determining the terms and conditions, including tariffs, the following should be adhered to:

(a) terms shall be determined on the basis of the services provided and independently of the profitability of the field to which the services relate;

(b) each user shall pay its share of operating costs incremental to the existing owners;

(c) the user shall pay for any new investment required for the use of the facility but where the user utilises capacity in which the owner has made a pre-investment for the purpose of third -party use the tariff may include payment for the use of such capacity including a reasonable payment for the risk that the investments would not be fully utilised. Decommissioning costs shall be payable by the user in respect to its own facilities.

(d) tariffs shall not include any repayment of investments that have already generated or, with the planned use, must be expected to generate a reasonable return for the owner;

(e) the user shall compensate the owner for any loss of profits, including the loss or postponement of production, as a consequence of the user's use of the facility. Compensation for such losses shall be determined on the basis of the profit that could have been obtained in respect to the lost or postponed production;

(f) owners shall, to the extent possible, schedule the connection of the users facility in order to minimise any loss or postponement of production (Denmark);

(g) the owner may charge a reasonable profit, allowing for the risk assumed by the owner in connection with the third-party use of the facility.

When agreement is reached it must be submitted to the relevant authority for approval. As in the UK, in the event of a failure to reach agreement relating to the use of facilities within a reasonable time, the matter may be referred to the MPE or the DEA for consideration and determination.

In Denmark, in the event of a breach of the regulations then companies may be subject to criminal liability pursuant to the Danish Criminal Code and, unless a more severe penalty is applicable under other legislation, shall be punishable by a fine.

Implementation

It is too early to assess whether the new regulations in Denmark have affected negotiating behaviour. However, the MPE believe that their regulations have been largely successful in bringing about change. Further research into whether this Norwegian experience provides a direct comparator to the UKCS industry needs to be undertaken. Nevertheless, it is clear that Norway have gone from an unsuccessful self regulated approach to a regulated approach that the regulator believes is currently working.

6.2 The Norwegian Continental Shelf - Gassled[68]

The regime governing host facilities and pipelines on the Norwegian Continental Shelf ('NCS') is described above. However, it is also worth considering the innovative manner in which Norway has implemented the Gas Directives through the 'Gassled' joint venture structure and the role of Gassco, a neither gain nor lose operator, founded by the MPE in 2001.

In response to the First Gas Directive the Norwegian gas facilities and pipelines (other than host facilities) were consolidated, by voluntary agreement, under one unincorporated joint venture called 'Gassled'. Gassled commenced as a joint venture between the oil and gas companies active on the NCS most of whom were active on the UKCS. It was established on 1 January 2003, has no employees and is organised through various committees with specific assignments. This partnership serves as the formal owner of the Norwegian gas transport infrastructure with Gassco acting as its system operator.

In its role as operator Gassco is responsible for initiating and coordinating development processes for the gas pipeline network and related facilities such as the process plants and receiving terminals. Together with the industry, Gassco has created a process for developing the annual transport plan to ensure that all relevant information needed for continuous improvement of the gas transport network is collected, and that all participants involved in this process act in accordance with agreed procedures. It makes its own assessments and recommendations for infrastructure development.

Gassco does not make a profit or a loss from its own operations. The cost of operating the transport system is met by its users through tariff payments whereby operating costs are paid to the operator on a no gain no loss basis and capital investment is recovered with a 7% return on capital invested by each system owner with some variation between different parts of the system. Since the joint venture was established, many of the original oil company owners have sold their interests to non industry institutional investors allowing them to redeploy their capital to higher reward E & P activity. For example, Norkse Shell sold its 3.25% interest to a subsidiary of Canada's Public Sector Pension Investment Board for £454 million.[69]

Frame conditions for the company are determined by the Norwegian government that also applies to the relationship between Gassco and the owners of the gas transport system.

6.3 The Netherlands

The Dutch Continental Shelf ('NLCS') shares the mature Southern North Sea basin with the UK, almost exclusively producing gas, with mutual participants. However, with the removal of BNOC from the UKCS, the distinguishing feature of the NLCS is the role of the state participant, EBN. Under the Dutch system EBN holds a 40%-50% interest in each producing gas field and its objective[70] is to perform activities designed to implement the Minister of Economic Affairs' energy policy. As such, the Dutch Government has a powerful tool to implement a policy of access to infrastructure on fair and non-discriminatory terms.

[68]From discussion with Erik Johnsen et al, Deputy Director of the MPE and supplemented from Gassled's website http://www.gassco.no/wps/wcm/connect/gassco-en/gassco/home/om-gassco/gassled.

[69]See http://uk.reuters.com/article/2011/09/01/uk-shell-norg-idUKTRE78037120110901.

[70]As stated on their website at http://www.ebn.nl/en/index.php.

Discussions with Dutch industry participants confirm that there are limited issues relating to access to infrastructure on the NLCS.[71] In addition to being almost exclusively a gas producer which has less technical complications than oil, many of the facilities are grouped comparatively closely offering real competition between facilities. In addition, the NLCS has an unwritten but well understood methodology for calculating tariff that is based on the original cost of capital for the infrastructure rather than based on a notional competitor system. One operator, which also operates on the UKCS, made the following observation:

> *'access to the NLCS-system (including tariff) is established by negotiation whereby the industry complies with generally accepted system of valuation, based on certain economic factors of the applicable facilities, including their depreciation and return on investment. By doing so, and unlike in the UK, a valuation based on alternative routes of evacuation is avoided (hence when no alternative route is available an excessive price should be paid).*
>
> *The outcome indeed is somewhat predictable seeing the commonly accepted tariff-calculation-method; EBN ensures that same calculation-method is being used so that existing infrastructure is exploited to the maximum, rather than stimulating installation of new infrastructure, thereby wasting the potential of existing infrastructure.'* [72]

6.4 Canada

The Albertan Framework

The framework for managing access issues in Alberta, Canada, and the process by which that framework was created, is remarkably similar to the voluntary arrangements constructed by industry on the UKCS. However, in Alberta it is more common for a field development to be funded by less than all owners with the non-contributing owners having to negotiate terms to use the facilities or sell production at the well head. Part 9 of the Oil and Gas Conservation Act RSA 2000 O-6 ('OGCA'), *Common Carriers, Purchasers and Common Processors*, provides powers for the Alberta Energy, Resources and Conservation Board ('ERCB') to declare gas processing plants (which perform the same functions onshore as offshore gas host facilities) and oil and gas pipelines 'common' which then triggers their power to set terms for their use. The field owner has recourse to make an application if it has been unsuccessful in negotiating access to an existing plant. An order under the OGCA obliges each common processor, among other things, to process gas that may be made available for processing in the plant without discrimination in favour of one producer or owner against another in the pool. If there is a dispute as to the processing fee to be paid an application may be made under section 55 for the ERCB to set the fee which may be effective retrospectively.

The legislation does not apply to oil 'batteries' that perform the same initial separation functions as the UKCS's offshore oil processing facilities. Professor Nigel Bankes of the University of Calgary explained as follows:

> *'I have never seen access to oil processing facilities (batteries) as being a big issue or indeed an issue at all in Alberta. The capital cost of the facilities is not high; the*

[71] Karin Weisenborne, avocaat, and formerly secretary to the Netherlands Oil and Gas Producer's Association; Wilbert Mourits, Commercial Manager, Dana Petroleum Netherlands BV; Max Crijns, General Counsel, Withershall Noordzee B.V.

[72] Email chain dated 27 January 2012 with Max Crijns, General Counsel of Wintershall Noordzee B.V.

technology is not complex; there is a salvage market for oil processing facilities; they can be readily sized to suit projects; there are probably no significant reductions in cost per unit with increased throughput. And the other factor that may be important is that you can truck onshore produced oil from the wellhead to a processing facility - so lower fixed costs that might tie you to a particular facility.' [73]

As such, it would appear that competition from viable alternates adequately manages access and use issues for oil processing.

The ERCB has issued detailed guidance as to how they deal with applications. Directive 065[74] details, comprehensively, what is required in an application, the ERCB process in dealing with applications and reaffirms its support of the industry's agreed practice of setting fees known as JP-05.

JP-05

JP-05: A Recommended Practice for the Negotiation of Processing Fees[75] is a continuation of the work begun with JP-90 and JP-95. The context for JP-90 was a familiar concern of the regulators about the setting of processing plant use fees. In a letter dated August 4, 1989 the Honourable Rick Orman, Alberta Minister of Energy, expressed concerns about excessive gas processing charges causing hardship for some producers and royalty owners, encouraging proliferation of gas plants and hampering conservation of solution gas. He indicated that he would prefer that industry address this situation and develop a solution that did not require regulatory intervention. With government encouragement, industry developed JP-90 (and later on its own initiative, JP-95) to improve the process of negotiation by providing guidelines on a number of factors affecting processing fees recognising a range of potential considerations and outcomes as well as to make dispute resolution more effective.

The resultant guidelines, JP-05, provide a comprehensive road map to pricing capacity where the per barrel fee is calculated by reference to the facility's cost of capital, a benchmark rate of return of 20% and the total daily capacity. A share of operating costs is also added. It is a matter of negotiation as to whether the original capital costs of the facility are used (providing a floor to the tariff range) or the 'replacement' costs, calculated as the original capital cost escalated by 3% annually to the current year, providing the ceiling. Where the final tariff falls is dependent on factors such as how much spare capacity is available, duration of the processing agreement and whether the share of operating costs will be based on actual costs with a 13th month adjustment, or fixed which provides the operator with an incentive for cost reduction. There is also guidance as to how operating costs should be calculated, treatment of decommissioning (reclamation) costs and suggestions for alternative dispute resolution. It concludes with numerous case studies that demonstrate how the fees would be calculated depending on the few variables, including the facility's capital cost and capacity sought, and how the data should be input into an excel spreadsheet.

In essence, the fee calculation is reduced to a mathematical equation undertaken using an excel spreadsheet where variables may be negotiated but within very specific parameters. In this manner, the process is more a matter for the accountants and auditors rather than commercial

[73] Email from Professor Bankes dated 25 January 2012.

[74] Available at http://www.ercb.ca/docs/documents/directives/Directive065.pdf

[75] *JP-05: A Recommended Practice for the Negotiation of Processing Fees* Joint Industry Task Force Report of October 2005 available at http://www.ercb.ca/docs/documents/reports/JP05.pdf

analysis and, consequently, it is easy to outsource disputes to industry experts for resolution without causing project delay.

The Petroleum Joint Venture Association in Canada was 'proud' to note that JP-05 has been one of the most successful and widely accepted practices in industry.[76]

Whilst the fee calculation for an onshore facility is unlikely to be appropriate for an offshore facility the key advance JP-05 makes over its UK counter part, ICoP, is that it provides the defined parameters within which, in the ordinary course of events, the use terms should lie and allows the analysis to be objectively assessed and input data audited. This process is then backed up by the regulator in Directive 065 who may also set terms with retrospective effect. This provides some certainty to investors when constructing their economic models and simplifies the regulator or an expert's task should it be called upon to make a determination. This type of process could be easily adopted into ICoP. Indeed, Professor Kemp has already undertaken extensive research in respect to an appropriate calculation for tariff for UKCS facility use.[77]

Federal Canada

The use of inter-provincial oil and gas pipelines and gas processing facilities is regulated in Canada by the National Energy Board ('NEB').[78] The NEB is an independent federal agency with a headcount of approximately 350 and annual budget of CAD$47 million.[79] Its purpose is to regulate pipelines, energy development and trade in the Canadian public interest. The NEB regulates the construction and operation of pipelines including the smaller gathering lines that cross provincial or international borders, as well as tolls and tariffs on those lines. It utilises a 'toll design' using a 'cost of service' methodology where tolls are set to provide investors with the opportunity to recover costs and earn a reasonable return on their investment in the pipeline. To set tolls, the cost of service and throughput are forecast for a forward test year. The cost of service is made up of operating expenses, depreciation, return on capital, and income and other taxes. The NEB allows, but does not guarantee, a pipeline company the opportunity to earn an approved rate of return. However, since 1995, the NEB, in response to industry demand, has encouraged a negotiated settlement procedure whereby the NEB set a generic cost of capital providing the basis for negotiations and encourages terms that provide incentives to reduce costs and share savings between the pipeline company and its shippers. Prior to this initiative all tolls had to be assessed and approved as in the public interest even if the parties were in agreement.[80]

Light-handed Regulation

The Westcoast Energy system is subject to the 'Framework for Light-handed Regulation' and is a form of negotiated settlement used for gathering and processing facilities on the Westcoast Energy system. Under the Framework the pipeline owner negotiates tolls individually with its customers based on a variety of identifiable factors. However, unlike the UK example, the Framework is backed up by the clear and understood powers of the NEB to set terms utilising a cost of service methodology in the event of a complaint.

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[76]Email from Steve Roberts, President of the Petroleum Joint Ventures Assopciation, 9 February 2012.

[77]See Kemp et al, North Sea Study Occasional Paper No. 116 *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)*

[78]See http://www.neb-one.gc.ca/clf-nsi/rcmmn/hm-eng.html.

[79]From the 2008-2009 year. See Treasury Board of Canada 2008-2009 Reports on Plans and Priorities.

[80]Doucetb J. Littlechild S., *Negotiated Settlements and the National Energy Board in Canada*, 15 January 2009.

Complaint-based Regulation

In 1985, the Board concluded that smaller pipelines under its jurisdiction should be subject to a lighter degree of toll and tariff regulation and so a complaint approach was developed for the financial regulation of these 100 or so companies. The pipeline company is responsible for providing shippers and other interested persons with sufficient information to enable them to determine whether the tolls are reasonable. Once filed with the Board, the tariffs containing new tolls automatically become effective. If a complaint is filed, the Board may establish a procedure to examine tolls. In the absence of a complaint, the Board may presume that the filed tolls are just and reasonable. Overall, this approach has resulted in few complaints.

6.5 Gulf of Mexico

The key tool regulating pipeline use in the Gulf of Mexico is the Outer Continental Shelf Lands Act 1953 ('OCSLA 1953').

Section 5(e) of OCSLA 1953 provides that the grant of rights of way for the development of pipelines shall be upon the express condition that oil or gas pipelines shall transport or purchase, without discrimination, oil or natural gas produced from submerged lands or outer Continental Shelf lands in the vicinity of the pipelines in such proportionate amounts as the Federal Energy Regulatory Commission, in consultation with the Secretary of Energy, may, after a full hearing with due notice thereof to the interested parties, determine to be reasonable, taking into account, among other things, conservation and the prevention of waste. Failure to comply with the provisions of section 5(e) or the supporting regulations and conditions shall be grounds for forfeiture of the right of way.

Section 5(f) of OCSLA 1953 goes on to require that the pipeline be operated in accordance with the principle that the pipeline must provide open and non-discriminatory access to both owner and non-owner shippers. Failure to comply with the regulations may result in the forfeiture of the pipeline.

However, the regulations only apply to pipelines and not to host facilities. The host facility regime is entirely unregulated but there does not appear to be the same issue of premature decommissioning having the potential of stranding reserves. The regulators are comfortable if a satellite owner drops their interest in the lease, allowing the host facility owners or others to pick it up,[81] where it is unable to develop its reserves through either a stand alone development or tie - back to a host facility.

Observations – Other Oil & Gas Jurisdictions

Each oil and gas jurisdiction will have its own idiosyncrasies but lessons learnt elsewhere should be observed and understood. For example Norway's frustrations at the failure of their voluntary code to modify abusive behaviour will resonate with many in the UK. The seemingly successful switch in Norway to a regulated approach which has been duplicated by Denmark means that the UK legislation is out of step with its competitors. The legislation shares many of the key principles with ICoP but the force of law appears to provide the incentive for compliance that is missing from the UK to drive modified behaviour.

[81]Email from Jarvis Abbott of the Department of Interior, Bureau of Safety and Environmental Enforcement dated 8 February 2012.

The innovative manner in which Gassled was formed, its tariff principles and the role of Gassco provides a possible framework for the liberalisation of the UK pipeline network from the upstream E & P interests whilst protecting the investment and revenue accruing to incumbent owners. Liberalisation would facilitate the introduction of independent system operators in a manner that is similar to the EU gas and electricity regimes considered in detail below. These operators could be incentivised to coordinate investment and development within a defined region of the North Sea.

The role of EBN on the NLCS demonstrates that if BNOC had continued as intended then the legislative framework in place in the UK might have been adequate to achieve the Government's public policy objectives in this area. In addition, it would appear that real competitive forces can act to drive tariff down.

Little can be learnt from the Gulf of Mexico experience where there are limited concerns about premature decommissioning. Perhaps most instructive are the Dutch and Albertan jurisdictions where tariff is set using well established principles recommended by industry that derive the fees from the facility's cost of capital. In contrast the ICoP guidance for setting terms states:

> *'Tariffs and terms offered and agreed between parties should be fair and reasonable, where risks taken are reflected by rewards.'* [82]

This guidance cannot be faulted, however, in comparison with the likes of JP–05 it is intangible and open to subjective interpretation. The context for the development of JP–05 is a mirror image to the challenges facing the UKCS and its regulators where industry have agreed a voluntary framework for the setting of terms. However, unlike JP–05, the ICoP remains highly subjective leaving room to optimise the information asymmetry creating the potential for excessive pricing. Were ICoP to adopt tariff setting principles that were as precise and objectively measurable as JP-05 a significant part of the negotiating process would be removed and the room for dispute narrowed. Nevertheless, it should be recognised that tariff setting is only part of the 'access' problem on the UKCS. Other areas such as compensation for deferred or backed out production and the liability and indemnity regime to prevail during the tie-in phase and for 'Macondo' like events provide significant blockers to third party access and should also be addressed using standardised terms.

[82] Paragraph 12.1 of ICoP.

7. REGULATED UTILITIES

7.1 Introduction

It is not within the scope of this paper to provide an in depth review of the UK regulated utilities, their pricing structures or the fiscal regime that can provide subsidies for public interest services.[83] However, given the benefits that the oil and gas industry brings in the form of employment and security of energy supply, the Government should move to ensure the Government take is able to adapt to ensure the development of less economic projects. This can either take the form of tax reductions or Government subsidies. Tax reductions reduce the amount a company must pay to Government, such as the existing allowances for small fields, HP/HT fields, and heavy oil fields. Subsidies allow the Government to maintain its fiscal take but return it as a subsidy that provides a guarantee of a return on capital invested in a similar manner to a progressive tax system.

7.2 EU Gas

With the introduction of the EU's Third Gas Directive[84] it is worthwhile examining the restructuring that has occurred in Europe for its gas transmission systems and how it is proposed they operate going forward.

European transmission systems are natural monopolies and have been operated by incumbents that inherited their systems after the privatisation of the former State owned entities. Many system operators held positions in several parts of the integrated system including upstream gas production and downstream gas supply. It was observed that such vertical integration could be the subject of abuse because a conflict of interest can arise between producers who are also system operators.[85] EU Commission investigations found evidence that access to the system, and decisions in respect to whether to invest in additional capacity, were being made with a view to favouring the system operator's upstream or downstream positions. As a result, the EU, through a series of directives, has required the system operators to become independent from the other segments in the sector. This process, where the different segments of an integrated business are separated or 'liberalised', will have the result of transforming the EU system into one that reflects, largely,[86] the UK's independent system operator model for the onshore NTS operated by National Grid Gas ('NGG').

The UK model envisages a freely open and competitive market on the basis of an independent transmission system operator ('TSO') closely controlled by the regulator (Ofgem) and subject to a network code to which all the system shippers abide. The network code which governs the use of the monopoly transportation network requires a transparency of information and consultation with the network users and non-discriminatory access and tariffs.

NGG's revenue is generated by two profit centres: (i) system operator costs: NGG is incentivised to reduce system costs based on a formula whereby it retains a share of cost savings achieved

[83]For a full analysis of these concepts see Harris D et al, *International Examples of Gas Infrastructure Regulation* January 2010 available at: http://www.market-analysis.co.uk/PDF/Reports/BrattleGroupCREGReport2010.pdf

[84]Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005

[85]See para 2.5 of Ofgem's supporting paper to *Regulating Energy Networks for the Future: RPI-X@20 – Update on domestic and EU policy context.*

[86]Due to pressure from German and French interests accounts, legal and management separation is required but not a full divestment of the transmission system business.

from a benchmark provided from previous and competitor data; and (ii) return on capital invested: NGG is subject to 'revenue cap regulation' where it is entitled to receive an agreed return on capital invested in projects approved by the regulator.[87] Generally, the UK's model is seen as successful and is the model that Europe is now moving to adopt although the system operators will not need to be fully independent but will need to be managed separately and the assets held and accounted for in separate legal entities. This is similar to how BG separated its UK gas storage business from its gas transmission business[88] both of which were later sold to third-party purchasers.

In Ernst & Young's *Final Report: Research on the case for Liberalisation* to the DTI in January 2006 the authors concluded that in respect to the liberalisation of the EU gas and electricity markets that the case for liberalisation is a 'strong one both theoretically and practically'. They comment that the added competition brought about by the process has lowered prices, costs and margins whilst market signals have ensured the maintenance of appropriate levels of investment.

7.3 Wind

Electricity generated by wind provides an analogy to oil and gas production. In a wind farm individual turbines are interconnected with a medium-voltage power collection system in the same manner that local gathering pipelines and umbilicals connect the wellhead to the host. At a substation, this medium-voltage electrical current is increased with a transformer for connection to the high-voltage electric power transmission system in the same manner that a host provides basic processing of production to enable it to be evacuated by an integrated pipeline system. A transmission line is required to bring the generated power to markets acting in the same role as the oil and gas integrated offshore pipelines.

The onshore UK network has been divided into three areas and responsibility for system operations has been awarded to three licensed transmission operators[89] with exclusive rights to build and maintain transmission assets in a defined geographic area. Prices are regulated through a five year price control period that sets the maximum revenue they can receive from charges levied on network users.

In the offshore, the Crown Estate held a competitive tender process to award leases for nine offshore zones, within which a number of individual wind farms would be situated. The bidding closed in March 2009 with over 40 applications from companies and consortia and multiple tenders for each zone. The Government has legislated for the separation of ownership and operatorship of the offshore transmission lines. This means that a system operator cannot own the transmission lines or generation capacity. As a result ownership of the transmission lines, like the example of Gassled, is being shifted to risk averse institutional investors who are comfortable earning a utility rate of return from tariffs charged to electricity generators who are transporting their electricity to market. Where a generator seeks connection to the grid it will undertake a competitive tender process whereby the successful offshore transmission operator ('OFTO') will design, build, fund and manage the construction and connection of the transmission lines. It will operate the lines thereafter under an operations and maintenance ('O & M') contract, for a 20 year period in return for a stream of revenue that is calculated in a similar manner to the NEB's cost-of-service model.[90]

[87]The scope of this paper does not extend to the detail of revenue or price cap regulation. For a detailed explanation of these concepts see Harris D et al, January 2010, *International Examples of Gas Infrastructure Regulation.*

[88]See BG 1997 press release at http://www.bg-group.com/MediaCentre/PressArchive/1997/Pages/pr-025.aspx

[89]National Grid, Scottish Power and Scottish Southern and Energy.

[90]See the UK's first OFTO,Transmission Capital Partner's business model at http://www.transmissioncapital.com/

Underwriting the investment is the Government commitment to provide subsidies by using contracts for differences ('CfDs'). CfDs promise generators a guaranteed price for the sale of their electricity where profit is capped to a maximum and collared to a minimum so that price uncertainty is removed giving the investor the certainty needed to make a long term, low risk investment.

A similar structure could be adopted into the UK offshore where the Government guarantee the producer a minimum price for oil or gas that provides sufficient certainty of tariff revenue to facilitate any additional infrastructure investment. A variation could be where the pipeline operator agrees to purchase from the wellhead on a spot netback basis, negotiates access rights through host facilities and receives a guaranteed price via a CfD.

7.4 Rail

The UK rail network is the subject of a 'franchising' system whereby the network is divided regionally, generally on the basis of the main trunk railway routes, and franchises are awarded to train operating companies who compete in periodic auctions for the right to invest in the system over the period of the franchise (7-15 years) and earn a return on their investment. Fares earned are the primary source of revenue but are topped up by Government where they are insufficient to repay the capital outlaid. In addition, in a manner that appears similar to Norway's Gassco, the franchise holders have obligations to the Government contained in their franchise agreements that require the meeting of performance targets, commitments to new investment and the replacement of older rolling stock. Subject to certain criteria, the return on investment is guaranteed by Government providing the right environment for long term, low risk investment.[91]

7.5 Water

Similarly, in the water industry, the regulator Ofwat[92] will set prices that are sufficient for water companies to recover new investments made for approved upgrades to the parts of the system in which they operate. Each company consults widely on its plans for a five year period. The plans contain operating and capital expenditure budgets which are considered by independent consultants on behalf of Ofwat. Ofwat then assesses the sales revenue the companies will need and sets price limits for each of the five years. The limits build in estimates of the cost of the returns the companies will need to pay to investors and the efficiencies Ofwat expects them to make to keep bills as low as possible.

Observations – Regulated Utilities

The EU and UK gas transmission system experience demonstrates that vertically integrated system owners are at risk of using their position to favour their own upstream production or downstream supply businesses. Independent system operators make better investment decisions, remove entry barriers and reduce system operating costs and margins. The rail, wind and water utilities all demonstrate that geographic regions can be the subject of concessions that grant the recipient the exclusive right to invest and make a return on capital over the period of the concession. The concessions, which the Government could underwrite for public interest reasons, can be auctioned competitively by Government in exchange for capital commitments and service levels. Generally, these structures have had a positive effect on competition, infrastructure investment, cost reduction and service.

[91] See the Department of Transport's website at http://www.dft.gov.uk/ for more information.

[92] See Ofwat's website http://www.ofwat.gov.uk/ for more information.

8. CONCLUSIONS AND RECOMMENDATIONS

8.1 The Past

The evolution of the petroleum regime in this area has been piecemeal. First as a minor adjunct designed to protect the fishing industry within the BNOC legislation and later to address pipeline network access in response to the Gas Directives. Only recently has the Government legislated specifically towards accessing offshore facilities with a view to maximising the economic recovery of reserves. When BNOC was rendered ineffective the regulatory regime moved from one capable of heavy Government influence to a light-handed regulatory approach reliant on voluntary commitments from industry. However, it remains unclear if this was by design or an unintended consequence.

8.2 The Present

The UK Industry

Without doubt the UK oil and gas industry has the capacity to provide significant benefits to UK Plc for decades to come. But this contribution is not inevitable and the final quantities recovered will reflect how well Government stewards the industry. Facilitating access to infrastructure is an important part of that challenge and, despite a powerful environmental lobby, there appears to be significant political support for the industry and recognition of the issues it faces.

To be effective a light-handed regulatory system needs to be supported by the general competition law and its regulator that provides a proxy for the market in which the natural monopolies participate. In addition rigorous disclosure obligations are required to address information asymmetry in combination with a real threat of effective Government intervention. Although the new powers of the Secretary provides the opportunity for an effective threat of Government intervention, ICoP is not adequately supported by the OFT and does not contain sufficient disclosure requirements to address information asymmetry.

Review of other Jurisdictions

The Dutch state participant, EBN, continues to successfully lead its Government policy in this area and Norway and Denmark have abandoned voluntary arrangements in favour of regulation that provides more protection to users and their investors. As such, the UK is in danger of being out of step with the other North Sea competitors. This should be a concern to the Government and industry alike and accelerate the case for review and, if appropriate, the imposition of fit for purpose regulation. In terms of the successful implementation of voluntary arrangements that are supported by the regulator the Albertan, Federal Canadian and Dutch examples demonstrate that where voluntary commitments are made that are tangible, measurable and objectively auditable then outcomes are more predictable. This simplifies the task of the regulator if asked to set terms making the determinations predictable and effective. In particular, the NEB's 'complaints based approach' has the capacity to shift the burden to owners to voluntarily produce a framework for competitive pricing without the timing issues that work against the practical implementation of the UK approach. The Albertan process of first declaring a facility ‘common’ enabling the supporting legislation relating to information disclosure and pricing strengthens the voluntary commitments and, in combination with other measures, may have attractions in order to prioritise and balance the negotiations for access to critical infrastructure earlier in the process.

Review of the Regulated Utilities

The experience from the regulated utilities in combination with the evolution of Gassled and its independent system operator, Gassco, provides an insight into how the industry could be developed going forward. The Gassled example demonstrates that incumbent owners are able to remain owners and accept agreed, utility type rates of return, leaving the operation of the system to an independent system operator with a mandate to coordinate regional development and investment. As has been observed for onshore transmission systems across the EU[93] vertical integration can be problematic and pose barriers to system access because a conflict of interest can arise between producers who are also system owners. Professor Kemp also notes that the pricing of access to infrastructure and the efficiency of market outcomes is complicated in the case of partial vertical integration.[94] Systems with operators that are independent of upstream equity considerations make decisions that are more consistent with facilitating the entry of new participants and production and should therefore be encouraged. The concept of awarding a prospective region to an independent system operator for a period of time in which it commits to undertake investment for a return that is capped and collared might be attractive to Government and industry alike. Not only would it provide a mechanism for Government to outsource the public interest obligations in this area to the private sector and promote competition between system operators but the process would add value to the incumbents' businesses and facilitate stakeholder support.

8.3 … A Future: Recommendations

Introduction

In the early years of the UKCS industry there was a certain amount of alignment between the major oil companies and Government to develop and produce reserves quickly and safely. This allowed the Government to adopt a *laissez-faire* policy to facility use. However, as the UKCS matures that alignment is brought under strain as the major companies seek to minimise investment in order to pursue a global foot print. This lack of investment is hindering the Government's objective of maximising economic recovery necessitating the need for stronger Government intervention.

The below recommendations focus on the range of regulatory approaches starting at one extreme with voluntary commitments, moving to the light-handed approach and through to the other extreme of heavy-handed sector specific regulation and restructuring. Measures that may be adopted for each to make them more effective either on their own or in combination are proposed. The identification of the point within the range of regulatory approaches that UKCS currently sits and where it should be positioned going forward is the challenge facing stakeholders.

The Voluntary Commitments

The West Coast Energy System and the Albertan approach under JP-05 demonstrates that a voluntary approach can be made to work where the commercial negotiations become process driven and are standardised into industry norms and, other than in exceptional circumstances, are enforced by the regulator. Three areas of typical tie-back negotiations could be targeted for

[93]See para 2.5 of Ofgem's supporting paper to *Regulating Energy Networks for the Future: RPI-X@20 – Update on domestic and EU policy context.*

[94]See Kemp *et al*, North Sea Study Occasional Paper No. 116 *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)* para.3.

standardisation and incorporation into ICoP and, where possible, confirmed in the DECC Guidance as consistent with the regulator's approach.

Indemnities

Work should be undertaken with the insurance industry to understand and standardise the liability regime governing tie-ins and 'Macondo' type events. An agreed framework for the calculation of deferred production is also suggested. The resultant deliverable should be incorporated into ICoP and endorsed in the DECC Guidance.

Template TPOSA

Host facility owners should work to agree a template TPOSA. Although the technical and commercial details of each TPOSA are different they broadly follow the same framework. A template publicly available and used by at least one UKCS platform can be found in Martyn David's *"Oil & Gas Infrastructure and Midstream Agreements"*.[95] To facilitate this work, DECC's Guidance could be supplemented with a pro forma TPOSA that they would be minded to use should an application be made to a host facility that did not have template TPOSA terms. This would have the effect of bringing a certain amount of standardisation to the process.

Tariff Framework

The ICoP should be supplemented with objectively measurable tariff setting procedures such as the Canadian 'JP-05' which might be adapted for the UKCS by utilising Professor Kemp's work undertaken in his North Sea Study Occasional Paper No. 116 *"Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)"*. The agreed approach should form part of the DECC Guidance.

Support for Light-handed Regulation

The review of the development of the regulatory process suggests that the light-handed regulatory approach has never been robustly underpinned by the competition law and rigorous disclosure requirements. To address the competition law issues the OFT should be encouraged to conduct a market survey of the offshore market for transportation, processing and operator services by host facility and pipeline owners and produce guidelines as to how it would deal, if at all, with the various types of claims that may be made in this area, such as refusal to deal, excessive pricing and the imposition of disproportionately high terms. To address information asymmetry, the ICoP should be strengthened by reviving the commitments outlined in the original ICoP to maintain an auditable and up to date database of all relevant technical and financial information to be disclosed upon request. This could be enforced by DECC where transfers of operatorship are requested. In addition, in order to prioritise the critical facilities consideration should be given to legislation enabling applications satisfying certain criteria to be made declaring a facility 'common' thereby triggering a legal requirement for disclosure.

The powers of the Secretary to set terms have not been used to date and, as such, the third constituent element of effective light-handed regulation, the threat of Government intervention, may be considered weak. Although the new powers of the Secretary to obtain information and set terms of his own initiative may address this aspect Government should be concerned that

[95]David M., et al, '*Oil & Gas Infrastructure and Midstream Agreements*' (Martyn R. David ed, London: Langham Legal Publishing) (1999).

other North Sea jurisdictions have moved ahead with stronger regulation in this area with reported success. DECC should liaise with counterparts at the MPE and DEA to test these reports and assess whether the UKCS is at a competitive disadvantage due to the absence of more detailed regulation. In parallel Government should ensure the allocation of additional resources to DECC to allow it to be represented early in access negotiations and ensure the Secretary is able to properly discharge his duties in respect to setting terms of his own initiative before negotiations reach a critical point.

Twilight on the UKCS

It is a geological certainty that fields will get smaller along with the economic rent available to stakeholders. Aside from the interconnectors and subject to any game- changing developments the UKCS will be left with a small number of strategic offshore pipelines and platforms to be managed on a care and maintenance basis and reserved for uneconomic production in times of scarcity, hardship or war. These assets could become part of the Government Pipeline and Storage System under the management of the Oil and Pipelines Agency or by a private sector contractor or other Government entity.

Prior to that time Government fiscal policy will need to adapt in a progressive manner, such as suggested by Kemp and the First Minister for Scotland, to ensure the Government take does not act as a block to the recovery of otherwise economic reserves. In addition, without restructuring there will always remain a tension between the maintenance of critical facilities for the development of yet to find reserves and the objectives of incumbent owners who are mandated by their investors to conserve expenditure to the minimum necessary to produce their own equity production. This tension between upstream interests and infrastructure operatorship is known to distort investment decision making and creates the potential for anti-competitive conduct.

The solution is to ultimately liberalise the pipeline operator roles from the underlying ownership roles and provide incentives for an independent system operator ('ISO') to maintain and build facilities with a view to undertaking third–party business and with authority to facilitate negotiations between host facility owners and users. This proposal is similar to the Gassled/ Gassco structure, although private sector participation is preferred for as long as may be possible,[96] and therefore would require a transition that is not dissimilar to that recently undertaken in the offshore wind industry. 'A future' could see each of the major basins on the UKCS, at the same or different times, become the subject of a regional concession that mandates the holder to maximise the economic recovery of reserves from the region. The concession could be the subject of a competitive tender that would include commitments to a multi–year work programme, a global marketing initiative for bespoke licensing rounds, minimum service levels, carbon capture and storage research and be for a duration that allowed sufficient certainty for a return on capital. Although considered politically 'infeasible' by Kemp, the provision of subsidy to ensure a return to infrastructure owners allowing users to make profits is his preference if Government is to regulate the market.[97] As such, Government's role will be to underwrite approved investments by the use of CfDs or other mechanisms that cap and collar revenue but provide low risk, long term investment opportunities and in addition set the minimum service levels and other terms of the concession. Incentives to achieve costs savings, such as those provided to NGG, would provide an additional profit centre. Existing rights for the incumbent owners to receive tariff revenue and use capacity would be grand-fathered.

[96]In theory the IOCs should only be replaced by a state participant, in this context, where the IOC's finally withdraw (Padmore (1992) p. 138).

[97]Kemp et al, *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)* Occasional Paper No. 116 (July 2010) page. 13.

As the last economic ‘drops’ trickle out of each reservoir the ISOs would manage the Government’s £22 billion decommissioning obligations ensuring that decommissioning is undertaken at an optimal time and in a coordinated manner that provides economies of scale that results in cost savings. Thereafter, the assets would be handed over for strategic management.

The Transition

Whilst the pipeline system operators may not be the major problem they have the capacity to be leaders in the solution. Transitioning to this new regional concession structure should commence by voluntary commitments from the major pipeline owners who should be incentivised by the added value to their infrastructure business brought about by the concession system potential. It is proposed the critical pipeline system operators be identified and appointed under ICoP as ‘Regional Champions’. Subject to certain restrictions to manage issues of confidentiality or conflicts of interest, the Regional Champions will be tasked with undertaking a ‘Gassco’ type role within their geographic ‘sweep’. This would include assessing the prospectivity in their catchment area, work with the host facilities to understand their technical requirements and the development of a rolling multi- year work programme and budget that includes work proposed by host facilities connected to their system and the estimated windows where possible and probable reserves can be found, appraised, developed and produced but recognising the inherent uncertainties associated with making such a plan. Decommissioning planning should also be included. The Regional Champions will also be mandated to act as a facilitator between users and hosts and will report to DECC with recommendations of proposed terms that the Secretary might set.

In recognition of the benefits that arise where system operatorship is managed independently of the upstream E & P business and in consideration of the ‘end game’ concession structure, the ICoP should provide commitments for Regional Champions to segregate their transportation and processing businesses from their E & P business unit to provide transparency of the real value of such businesses. Policies should be adopted that facilitate the transfer of the Regional Champion business function to specialist infrastructure operators that allow the system owners to take an investment only role and split the topsides management from the subsurface exploration potential.

This process, once complete, will provide the correct environment for the transition to the concession system, either voluntarily, or during a transition window determined by the Secretary after consultation with industry.

ABBREVIATIONS

boe	barrels of oil equivalent
DEA	Department of Energy Affairs (Denmark)
DECC	Department of Energy and Climate Change
DTI	Department of Trade and Industry
EU	European Union
HMT	Her Majesty's Treasury
HP/HT	High Pressure and High Temperature
ICoP	Infrastructure Code of Practice
IOC	International Oil Company
JOA	Joint Operating Agreement
MEA	Ministry of Economic Affairs (The Netherlands)
NCS	Norwegian Continental Shelf
NEB	National Energy Board (Canada)
NGG	National Grid Gas
NLCS	The Netherlands Continental Shelf
OCS	Outer Continental Shelf (USA)
OFT	Office of Fair Trading
PRT	Petroleum Revenue Tax
SCT	Supplementary Corporate Tax
TPOSA	Transportation, Procesing and Operator Services Agreement
UK	United Kingdom
UKCS	United Kingdom Continental Shelf
UKOOA	UK Offshore Operator's Association

REFERENCE LIST

1. PRIMARY SOURCES

1.1 National Legislation (UK)

Statutes

Competition Act 1998 (c. 41).

Continental Shelf Act 1964 (c.29).

Energy Act 2008, (c. 32).

Energy Act 2011, (c. 16).

Enterprise Act 2002 (c.40).

Gas Act 1995 (c.45).

Oil and Pipelines Agency Act 1985 (c. 62).

Petroleum Act 1998 (c. 17).

Petroleum and Submarine Pipe-lines Act 1975 (c.74).

Petroleum Production Act 1934 (c.36).

Pipe-lines Act 1962 (c. 58).

Senior Courts Act 1981 (c.54).

Regulations

Gas (Third Party Access Rights and Accounts) Regulations of 2000 (No. 1937).

1.2 National Legislation: Other Jurisdictions

Act 29 November 1996 No. 72 relating to Petroleum Activities (Norway).

Regulations relating to the use of Facilities by Others, December 2005 (Norway).

Consolidated Act No. 960 of 13 September 2011 on the use of the Dutch Subsoil (Denmark).

Executive Order 1132 of 5 December 2011 on the Use of Facilities for the Production, Processing and Transportation, etc, of Hydrocarbons by Third Parties (Third Party Access) (Denmark).

Outer Continental Shelf Lands Act 1953 (c.345) (USA).

Oil and Gas Conservation Act RSA 2000 O-6 (Alberta, Canada).

1.3 International Legislation

Consolidated version of the Treaty on the Functioning of the European Union (2007) 2008/C 115/01.

Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005.

Directive 1998/30/EC of European Parliament and of the Council (June 1998).

Directive 2003/55/EC of European Parliament and of the Council (June 2003).

Directive 2009/73/EC of European Parliament and of the Council (July 2009).

1.4 Cases

Case Comp/39.317 – E.ON Gas (EC).

Case Comp/39.316 – Gaz de France (EC).

2. SECONDARY SOURCES

2.1 Books

Daintith T., et al., *United Kingdom Oil and Gas Law* (Adrian Hill ed., 3rd ed., UK, London: Sweet & Maxwell 2003) (1977).

David M., et al., *Oil & Gas Infrastructure and Midstream Agreements* (Martyn R. David ed, London: Langham Legal Publishing) (1999).

Oil & Gas UK, *Code of Practice on Access to Upstream Oil and Gas Infrastructure on the UK Continental Shelf* (London: Oil and Gas UK, January 2009).

Poole R and Poole R M, *The Valuation of Pipe-Line Easements and Way Leaves* (London; Estates Gazette Limited) (1963).

Woolf., et al., *De Smith's Judicial Review* (6th ed., UK London: Sweet & Maxwell) (2009).

2.2 Articles

Doucetb J. Littlechild S., *Negotiated Settlements and the National Energy Board in Canada* (15 January 2009) available at http://www.ofgem.gov.uk/Networks/rpix20/Factsheets/Documents1/5.pdf

Harris D et al, *International Examples of Gas Infrastructure Regulation* (January 2010) available at http://www.market-analysis.co.uk/PDF/Reports/BrattleGroupCREGReport2010.pdf.

Hull J, et al, *Offshore Infrastructure: the Legitimate Expectations of Third Party Users* available at http://www.memerycrystal.com/uploaded/Articles/other%20files/Memery%20Bank%20-%20Natural%20Resources%20-%20Jun%202011%20-%20Legitimate%20Expectations.pdf

Kemp A, 'A Prize We Cannot Afford to Let Slip' *The Parliamentary Brief: Pouring Troubled Water Over Oil* (July 2011).

Kemp A and Phimister E, *Economic Principles and Determination of Infrastructure Third Party Tariffs in the UK Continental Shelf (UKCS)* Occasional Paper No. 116 (July 2010).

Padmore G, *Government participation in mining projects: fiscal, financial and regulatory implications for developing countries*, Natural Resources Forum 16(2) (1992), pp 132-140.

2.3 Government Publications

Consultation on Access Provisions and Voluntary Arrangements, Department of Trade and Industry (DTI) February 2001 available at http://og.decc.gov.uk/en/olgs/cms/tech_papers/consultations/cons_provs/cons_provs.aspx

Department of Trade and Industry, *Oil and Gas Infrastructure: Guidance on Applications for Resolution of Disputes Over Third Party Access Summary of responses to the Department of Trade and Industry consultation on proposals for guidance on use of legal powers to settle disputes over third-party access to infrastructure (Petroleum Act 1998 (consolidating the Petroleum and Submarine Pipe-lines Act 1975), Pipe-lines Act 1962 and Gas Act 1995)* available at https://www.og.decc.gov.uk/consultations/og_infrastructure/summresponse.doc.

Guidance on Disputes over Third Party Access to Upstream Oil and Gas Infrastructure, Department of Energy and Climate Change (DECC) April 2009 available at https://www.og.decc.gov.uk/upstream/infrastructure/TPA_Guide.pdf.

Energy and Climate Change Committee (HC) *Report of First Session 2008-2009* available at http://www.publications.parliament.uk/pa/cm200809/cmselect/cmenergy/341/341i.pdf

European Committee (HL) *Gas: Liberalised Markets and Security of Supply Report of Session 2003-2004* available at http://www.publications.parliament.uk/pa/ld200304/ldselect/ldeucom/105/105.pdf

EU: Commission welcomes ENI's structural remedies proposal to increase competition in the Italian gas market Brussels, 4 February 2010 available at http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/10/29.

Hansard:

HC Deb 30 April 1975, vol 891 col. 490.

HC Deb 30 April 1975, vol 891 col 508.

HC Deb 30 April 1975,vol 891 col. 507-508.

HC Deb 30 April 1975, vol 891 col 563.

HL Deb 15 October 1975, vol 364 col 933.

Office of Fair Trading, *Guidance in respect to Access to Telecommunications infrastructure* available at http://www.oft.gov.uk/shared_oft/business_leaflets/ca98_guidelines/oft417.pdf.

Office of Fair Trading, *Market Definition – understanding competition law*, 2004 available at http://www.oft.gov.uk/shared_oft/business_leaflets/ca98_guidelines/oft403.pdf.

Ofgem, *Regulating Energy Networks for the Future: RPI-X@20 – Update on domestic and EU policy context* (20 January 2010) available at http://www.ofgem.gov.uk/NETWORKS/RPIX20/CONSULTDOCS/Documents1/et%20long%20term.pdf.

Treasury Board of Canada 2008-2009 Reports on Plans and Priorities available at http://www.tbs-sct.gc.ca/rpp/2008-2009/inst/tbd/tbd00-eng.asp

UK Continental Shelf Tax Regime – Options for Reform, Scottish Government, June 2011 available at http://www.scotland.gov.uk/Publications/2011/06/North-Seataxation

UKCS Commercial Code of Practice (CCoP) *Survey of Transactions Conducted by UKCS Licensees During 2008 – Summary of Findings* available at https://www.og.decc.gov.uk/regulation/codes/comm_code/2007SurveySummary.pdf

3. OTHER

3.1 Internet

BG press release, 1997, *'BG Creates Stand Alone Storage Business'* available at http://www.bg-group.com/MediaCentre/PressArchive/1997/Pages/pr-025.aspx.

BP Forties Pipeline System schematic https://www.icmmed0ty.com/fps/content/brochure/brochure.asp?sectionid=6.

Endeavour International Q1 2010 Transcript of Earnings Call available at http://seekingalpha.com/article/204069-endeavour-international-corporation-q1-2010-earnings-call-transcript.

National Energy Board (Canada) http://www.neb-one.gc.ca/clf-nsi/rcmmn/hm-eng.html

Oil & Gas UK *2011 Activity Report* available at http://www.oilandgasuk.co.uk/cmsfiles/modules/publications/pdfs/EC023.pdf

Oil & Gas UK, Briefing note, *Decommissioning Insight* OP067, December 2011, available on the Oil & Gas UK website www.oilandgasuk.co.uk.

PILOT Report 2005 'Maximising Economic Recovery of the UK's Oil and Gas Reserves – The Context for the Brownfield's Challenge' available at http://webarchive.nationalarchives.gov.uk/20101227132010/http:/www.pilottaskforce.co.uk/files/workgroup/1649.pdf.

PILOT Report 2009 *'A Powerful and Effective Partnership'* available at https://www.og.decc.gov.uk/regulation/codes/comm_code/2007SurveySummary.pdf.

Premier Oil Plc's 2011 half yearly Management Statement available at http://www.investegate.co.uk/article.aspx?id=201108250700239989M

Reuters *'Shell sells stake in Gassled for $730 million'* (London 1 September 2011): http://uk.reuters.com/article/2011/09/01/uk-shell-norg-idUKTRE78037120110901

All last visited January 2012.

3.2 Conferences

Cowan S. '*Australian Competition and Consumer Regulatory Conference'* Surfer's Paradise 26 July 2007 and available at http://www.accc.gov.au/content/item.phtml?itemId=793237&nodeId=add211fe3af71923a44b22948d006e81&fn=Cowan+-+Paper.pdf

Hannon J. 'Access to Infrastructure: A new approach for the North Sea, a joint presentation by ADIL and Hannon Westward, 17 November 2011, Aberdeen

Hendry (MP) C. UK Offshore Oil & Gas Industry Annual Reception, House of Commons, 17 January 2012.

Warwick P., Oil & Gas UK's Breakfast Briefing, Aberdeen, on 25 October 2011

Wilson I., Access Arrangements to Gas Pipelines – Maintaining Balance 2002 *New Zealand Petroleum Conference Proceedings*, 24-27 February 2002 available at www.nzpam.govt.nz/cms/pdf-library/petroleum...1/.../file

Wilson N. Oil & Gas UK Breakfast Briefing, Aberdeen, 29 April 2011

3.3 Interviews

Discussions with Nick Pogson and Hywel Evans, Endeavour International, throughout 2011.

Interview with a member of the D'Ancona committee 13 July 2011.

Conference call with Erik Johnsen et al, Deputy Director of the Ministry of Petroleum and Energy (Norway) 4 January 2012.

3.4 Emails

Email from Peter A Christnacht of the Office of Natural Resources Revenue (USA) 15 March 2011.

Email from Lene Dalsgaard of the Dutch Energy Agency, 6 January 2012.

Email chain with Wilbert Mourits, Commercial Manager, Dana Petroleum Netherlands BV, 11 January 2012.

Email chain with Karin Weisenborne, avocaat, and formerly secretary to the legal committee of the Netherlands Oil and Gas Producer's Association 17 January 2012.

Email from Professor Nigel Bankes, University of Calgary, 25 January 2012.

Email chain with Max Crijns, General Counsel of Wintershall Noordzee B.V, 27 January 2012.

Email chain with Jarvis Abbott of the Department of Interior, Bureau of Safety and Environmental Enforcement (US), 7 February 2012.

Email from Steve Roberts, President of the PJVA, 9 February 2012.

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