Written evidence submitted by Decom Energy Limited (OGI0022)

The future of the oil and gas industry inquiry – Scottish Affairs Select Committee 2018
Written Submission from Decom Energy Limited

1. Executive Summary

1.1 Decom Energy Limited welcomes the opportunity to respond to the Scottish Affairs Select Committee’s request for submissions to its inquiry into the future of North Sea oil and gas. In recent years, decommissioning has grown to be an industry-wide issue with increased debate as to the safest and most effective solutions as the offshore oil and gas sector enters this late stage of its lifecycle.

1.2 The North Sea has an ageing asset base, with production starting in 1967. The peak decade was from 1984 to 1993 when an average of 20 installations were commissioned each year. There are currently 245 assets more than 30 years old across the North Sea. Over the next 30 years, in excess of 475 platforms, 10,000km of pipelines and 5,000 wells are expected to be decommissioned in the North Sea alone. The UK’s international obligations on decommissioning are governed principally by the 1992 Convention for the Protection of the Marine Environment of the North East Atlantic (the OSPAR Convention) and in particular clause 98/3 on the disposal of disused offshore installations.

1.3 Decom Energy, the parent company of operator Fairfield Energy, is being established as the first fully outsourced end-to-end, late-life decommissioning operator in the North Sea. Its subsidiary was one of the first to tackle a complex decommissioning project following cessation of production from its Greater Dunlin Area in June 2015. Through its experience, Decom Energy believes that the creation of a thriving decommissioning hub in Aberdeen will have significant benefits for the North East, Scotland and the UK at large.

1.4 It is certainly evident that the opportunity exists for the UK, and Scotland in particular, to become the world leader in decommissioning, with the potential for expertise to be deployed at home and exported overseas to other countries seeking solutions to the decommissioning of offshore assets. The North Sea is recognised for its excellence in production and Decom Energy wants to build and foster that same reputation for decommissioning expertise. This reputation for excellence is well-earned with Aberdeen being home to the world’s most skilled and experienced oil and gas professionals. This knowledge and experience is an invaluable asset which is readily transferrable to decommissioning, an activity that has the potential to continue to feed the pool of home grown talent for some time to come. Moreover, the majority of companies leading the way in developing technology for decommissioning of the North Sea are based in Scotland. Investment in this centre of excellence will ensure these companies and their expertise will continue to prosper.

1.5 There is however a question of competence and capability to undertake the complex task of decommissioning appropriately. Given Decom Energy’s experience, it believes that the optimum model is for the decommissioning operator to take control of the asset for the last years of its life. In this way it gains a thorough knowledge of the asset so that when production ceases, there will be a safe, efficient and effective outcome with reduced costs. This is a significant consideration given the burden the UK Government and the taxpayer is shouldering when it comes to decommissioning.

1.6 The concept of getting the right assets in the right hands is not new, being one that has long been advocated endorsed in UK Continental Shelf (UKCS) discussions, and it is equally relevant in the phase of life where an asset is being managed out of its existence. The advent of Transferable Tax History (TTH) later this year may be the

stimulus for late life assets to change owners and continue to produce, but these companies are not necessarily appropriately placed to handle the end of life and decommissioning phase.

1.7 However, there are undoubtedly challenges to be overcome for decommissioning to be a truly efficient process. Current regulatory requirements have the potential to cause significant delays and added costs. For example, Decom Energy believes it would be beneficial for the Offshore Petroleum Regulator for Environment and Decommissioning (OPRED) to permit the reuse of established data, studies and even the methodologies defined in approved Decommissioning Programmes for similar assets. Currently, data must be collected from each asset even where it is available for near identical assets, leading to the same conclusions yet adding to costs. There is also a lack of clarity around the issue of long term liability or ‘liability in perpetuity’ for the decommissioning of assets, including the appropriate responsible parties and the associated obligations.

1.8 Furthermore, the laws and regulations pertaining to decommissioning were developed several years ago and are in need of review and revision to enable this activity to be undertaken in a manner that upholds the goal of the Oil & Gas Authority (OGA) to reduce costs and ensure the taxpayer is protected. The oil and gas industry is acutely aware of its environmental obligations but it is questionable whether a clean bed approach to decommissioning, as enshrined in OSPAR, is actually beneficial to the environment.

1.9 Greater funding and the promotion of decommissioning as a source of employment are needed to ensure that decommissioning becomes an established and thriving business within the UK. However, in the interests of the proper distribution of those resources for the establishment of decommissioning, Decom Energy would question whether an ultra-deep water port to compete with those of Norway as has been previously mooted is an appropriate expenditure. Initiatives have already been put in place, such as the Decommissioning Action Plan launched by Scottish Enterprise and Highlands and Islands Enterprise in 2016 and the introduction of the Decommissioning Challenge Fund announced by the Scottish Government in February 2017, but more needs to be done to incubate this fledgling industry.

1.10 This submission highlights the actions Decom Energy believes should be taken to achieve this objective whilst protecting the marine and onshore environment.

2. Introduction

2.1 The Greater Dunlin Area is located 195km north east of Shetland. First oil was produced in 1978 and 522 million barrels of oil recovered from its four fields over 37 years of operation. Decom Energy’s subsidiary, Fairfield Energy, became the operator of the assets in 2008 and continued to produce oil in the area until 2015. That same year it restructured and transitioned to become a specialist decommissioning operator.

2.2 Many of its 50 permanent staff were refocused onto the complex engineering challenge of decommissioning infrastructure associated with a concrete gravity base structure weighing 336,000 tonnes and standing in a water depth of 150 metres, topsides of 20,000 tonnes, with 45 platform and 16 subsea wells. The project is at the halfway point in terms of the wells plugging & abandonment (P&A) programme and readiness for the removal of topsides. The commercial challenges have been extensive in achieving alignment between many stakeholders whilst ensuring the project continues at pace. The complete decommissioning of Dunlin is expected to take six to seven years.

2.3 To date, it is primarily the majors who have tackled the decommissioning of their own assets in the North Sea, and worldwide the only area undertaking extensive decommissioning is in the shallow waters of the Gulf of Mexico, very different from the deep water and harsh climactic conditions of the North Sea. Decom Energy considers that it is at the frontier of a new era, setting the industry standard for decommissioning in the belief
that Scotland will become the home of a flourishing new industry that builds on its heritage of engineering innovation.

2.4 After all, North Sea oil and gas is in decline. Production peaked around the year 2000 and although advances in technology have extended the life of some wells and enabled other new wells to be drilled, it is confirmed that 214 fields are forecast to be decommissioned within the next seven years. Within the Wood Mackenzie Report “US$32 billion of decommissioning worldwide over the next five years: is the industry ready?”, it is estimated that the total decommissioning cost over the next 30 years could reach £50 billion with a significant proportion falling on the taxpayer.

2.5 In order for decommissioning activities to be conducted in a safe and responsible manner in one of the harshest maritime environments, there is a need to ensure the task is entrusted to the very industry professionals who exploited the potential of the North Sea. This expertise is readily available in Scotland.

3. Cost

3.1 According to Oil and Gas UK's Decommissioning Insight, the size of the decommissioning market in the UKCS in 2017 was £1.8 billion. From 2017 to 2025, £17.6 billion is forecast to be spent on decommissioning in the UKCS. The largest category of expenditure on the UKCS between 2017 and 2025 is predicted to be wells P&A at 49 per cent, some £8.3 billion.

3.2 In June 2017 the OGA published its first cost estimate for the decommissioning of assets in the North Sea, £59.7 billion, and set the goal of reducing the figure by at least 35%. Recently the OGA claimed the sector had potentially slashed the bill by 7%, or £4 billion, in just one year.

3.3 It stated that the 7% reduction was primarily driven by huge improvements in planning and execution. At the time of publication, Nils Cohrs, Head of Decommissioning at the OGA, said that the new supply chain firms who specialise in decommissioning could have a big impact on efforts to lower costs further.

3.4 As more decommissioning is undertaken, costs are predicted to fall for wells P&A by 5% in the central and northern North Sea and west of Shetland, and by 4% in the southern North Sea and Irish Sea with further cost reductions predicted. This activity accounts for the biggest spend in terms of decommissioning. Decom Energy believes these costs will fall as the industry becomes more experienced and more specialised, and as technological advances enable more innovative solutions and streamlined processes.

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3 Oil and Gas UK Decommissioning Insight, 2017, https://oilandgasuk.co.uk/decommissioninginsight/


5 North Sea industry has ‘picked up decommissioning challenge’, OGA says, Mark Lammey https://www.energyvoice.com/oilandgas/north-sea/175242/north-sea-industry-has-picked-up-decommissioning-challenge-oga-says/

6 Oil and Gas UK Decommissioning Insight, 2017, https://oilandgasuk.co.uk/decommissioninginsight/
4. Regulation and the Environment

4.1 Decom Energy believes that despite the active involvement of the decommissioning regulators and their commitment to increasing efficiencies and reducing costs, there are some areas for improvement. This includes the obligation on operators of assets to study, analyse and compare decommissioning solutions on a case by case basis, without being able to rely upon previous successfully executed projects as ‘analogues’ to simplify planning and expedite approval. This change would contribute to a more efficient and less costly process when submitting Decommissioning Programmes.

4.2 In addition, the UK Government’s policy is underpinned by the principle of “seeking to achieve effective and balanced decommissioning solutions which are consistent with international obligations.” These international obligations are part of the OSPAR Convention which is reviewed every five years and requires operators to return the marine environment to its natural state.

4.3 OSPAR Decision 98/3 prohibits leaving offshore installations wholly or partly in place unless further derogations are granted. However, it provides certain derogations to concrete structures and the footing of large steel jackets weighing more than 10,000 tonnes, from the fundamental principle that decommissioning should result in full removal of the installation. Derogation is not automatically available and is subject to a detailed assessment and consultation to determine if there are significant reasons to allow the installation (or part thereof) to remain in situ. Furthermore, no derogation is available to steel installations constructed after 9 February 1999 (being the date that Decision 98/3 came into force).  

4.4 OSPAR is a consequence of the scrutiny that followed Shell’s attempt to decommission Brent Spar 20 years ago. It enshrined the clean sea bed principle into law although there is a contention that this may in fact cause damage to marine environments. What is clear is that decommissioning is being governed by regulations that are now 20 years old. For example, there is growing support from environmental groups and the industry for the ‘rigs to reefs’ approach. Many platforms have been in the North Sea for 30 to 40 years and have turned into valuable marine habitats, providing rare hard structures in a sea whose bed is mostly soft sand and mud.

4.5 The University of Edinburgh has studied reef creatures such as cold-water corals, barnacles, mussels, and sea anemones at 66 North Sea platforms. It concluded that “platform ecosystems are evolving to mimic those in the wild.” A collaborative research project called INSITE, (Influence of Man-made Structures in the Ecosystem) reported this year that some North Sea rigs act like “small offshore islands,” supporting marine communities that need hard surfaces and attracting predators such as fish, mammals and seabirds. According to the University the platforms have encouraged the recovery of cold water corals that had been endangered by the activities of North Sea trawlers.

4.6 Although this approach may not be appropriate in all cases, Decom Energy acknowledges that some environmental groups are opposed to leaving any structures in the North Sea regardless of the justification. However, removing structures and cutting up and flushing them clean may mean a more significant short-term

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environmental impact via the potential for leakage of residual hydrocarbons and damage to the sea bed from the removal of pipelines. It is ironic that the regulations put in place to protect the environment may be having a counter-effect.

4.7 However, The Scottish Wildlife Trust policy adopted in 2013 would appear to add weight to this assertion as it states that “the current presumption of complete removal of offshore infrastructure should be reconsidered.”

5. Other decommissioning challenges

5.5 The shortage of suitably qualified engineering and technical graduates is an endemic issue for the UK’s oil and gas industry. The recent North Sea slump has also resulted in experienced staff leaving the industry. However, decommissioning has the potential to attract these professionals back and, given that decommissioning will be a feature of the next 25 to 30 years, it has the potential to encourage new entrants to the industry. If the UK and Scotland, in particular, are going to be able to develop a world leading position in decommissioning then the oil and gas industry and the education establishment have to encourage young people to take up engineering subjects. Decommissioning presents complex engineering challenges which will test the skills and expertise of the people it employs.

5.6 In particular, a significant issue is the shortage of divers who are still required to undertake certain decommissioning tasks. In the future it may be possible to use remotely operated and autonomous vehicles to undertake the entire range of tasks but currently this is not practicable. However, there appears to be limited routes for professional divers to be trained to support the industry and Decom Energy would suggest that the Scottish and UK Governments examine the case for funding programmes at the Underwater Centre at Fort William to attract new recruits.

5.7 In other areas there have been encouraging developments, such as providing more clarity around decommissioning liability. White & Case recently stated, “the allocation of decommissioning liabilities has always been a difficult issue in M&A deals, as sellers have traditionally sought a ‘clean break’ from these liabilities, while buyers have had to factor in the costs of decommissioning security and be comfortable with the fact that they can be liable even once they have sold on the asset.” With an improving oil price and the success of the recent 30th Licensing Round, new entrants backed by private equity are entering the North Sea and are purchasing assets from more established players and this has brought decommissioning costs sharply into acquisition negotiations. However, the announcement of Transferable Tax History will inevitably bring more certainty in this potential area of contention.

5.8 The issue of liability it one that the industry and insurers have been discussing. There are risks associated with decommissioning, and the costs are huge, proportionately falling on the UK Government and the tax payer. It is vital to attract investment from financial institutions for these projects but the prospect of perpetual liability is a deterrent. The industry is undoubtedly committed to reducing costs however a means of achieving

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12 The role of insurance in North Sea decommissioning, Gordon Browne AIG, https://www.aig.co.uk/insights/role-insurance-north-sea-decommissioning
this may involve the development of an appropriate insurance product entailing backing from the UK Government.

5.10 As raised earlier in this submission, Decom Energy would caution against the creation of an ultra-deep water port in Scotland. The investment would be huge and there is no guarantee that operators would use it if it is not cost competitive. However, the handling capacity of UK ports has been seen to be limited with many not having the capability or capacity to undertake complex tasks such as removing Naturally Occurring Radioactive Materials (NORM) which are present in North Sea production reservoirs. It is encouraging that Scottish ports are now rising to this challenge along with others in the North-East of England. Decom Energy would encourage this approach to continuous improvement in order that the UK can meet the decommissioning challenge.

6. In conclusion

6.1 Decom Energy is committed to building on its position as a pioneer in the development of a decommissioning industry in Scotland.

6.2 It believes that Scotland could become a global leader in this sector but its first-mover advantage can only be sustained by the industry and the UK and Scottish Governments working collaboratively to develop world-class regulation and strategies, and to provide the investment required to promote the industry’s interests within the North Sea and globally. The potential prize is significant and it is important that Scotland can leverage its current advantage.

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