Colleagues,

The Scottish Government welcomes the opportunity to present evidence to the Scottish Affairs Committee’s inquiry into the Future of the Oil and Gas Industry.

Recent trends and outlook

1. It has been a challenging few years for the oil and gas sector. The fall in oil price from above $110 per barrel in 2014 to a low of below $30 per barrel at the start of 2016 led to a significant decline in cash flow and investment across the sector.

2. Cost saving measures and postponed investment led to falls of 27% in Scottish operating expenditure and 41% of Scottish capital expenditure between 2014 and 2016\(^1\), with particularly significant impacts on the supply chain whose revenues fell by around 30% between 2014 and 2016\(^2\).

3. It is estimated that total employment supported (direct, indirect, induced) by the UKCS fell by 162,000 across UK between 2014 and end of 2017 with an estimated 61,000 of that in Scotland\(^3\).

4. To date, a total of 43.5 billion boe has been extracted from the UK and UKCS. The Oil and Gas Authority (OGA) estimates that up-to 20 billion recoverable barrels of oil equivalent remain, if technological development continues and the required fiscal, business and regulatory environment can be maintained.

5. While production has increased over the last 2 years as a result of investment prior to the downturn, offshore exploration and appraisal (E&A) activity remains near all-time lows, with 23 E&A wells drilled in 2017, an increase of one from its record low in 2016\(^4\). This represents a significant challenge as continued low exploration levels will lead to diminished future production profile.

6. Overall offshore drilling, which includes E&A and development wells, fell by 14% in 2017 from levels a year earlier, dropping below 100 wells for the first time since 1973 and this compares to 275 wells drilled ten years ago.

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\(^2\) Business Outlook 2018, Oil and Gas UK, https://oilandgasuk.co.uk/businessoutlook-2/
\(^3\) Workforce Report 2017, Oil and Gas UK, https://oilandgasuk.co.uk/product/workforce-report-2017/ (Scottish fall in supported employment assumed to be equal to share of total supported employment)
\(^4\) Oil and Gas Authority Well Data https://www.ogauthority.co.uk/data-centre/data-downloads-and-publications/well-data/
7. However, the oil and gas industry remains a vitally important sector of both the UK and Scottish economies. Latest estimates show that the oil and gas sector supported more than 302,000 jobs in the UK, with an estimated 38% of these in Scotland, around 115,000 jobs. In 2016, oil and gas production was estimated to have been worth £9.2 billion to the Scottish economy, and offshore exports of oil and gas from Scotland to the rest of the UK and the rest of the world were £13.3 billion according to provisional estimates from the Scottish Government.

8. Oil and gas production has generated, excluding indirect and payroll taxes, in excess of £330 billion in direct petroleum duties and corporation tax revenues for the UK exchequer over the last five decades, and the Office for Budget Responsibility estimate that the North Sea will generate further direct tax revenues of £5.5 billion over the period 2017-18 to 2022-23, while the industry clearly remains a strong contributor in terms of both payroll and indirect taxes also.

9. There are increasingly positive signs emerging from the sector in the last year, as the benefits of very significant and sustained reductions in lift costs per boe and prices for Brent Crude having recovered to $74 per barrel (13 July 2018) have helped to make the UKCS Basin competitive in a global context. This has helped underpin the strong response to the OGA’s recent 30th licensing round with 123 licenses awarded to 61 companies, which will provide a much needed boost to exploration and which is also expected to unlock 320 million barrels of “stranded” oil in undeveloped discoveries.

10. Oil and Gas UK expect at least 12 new developments to be sanctioned in 2018, worth around £5 billion of capital investment, and supply chain revenues are expected to stabilise in 2018.

Energy strategy and security

11. Oil and gas industry strengths are one of the six strategic priorities of the Scottish Energy Strategy: Currently approximately three quarters of Scotland’s energy needs are supplied through hydrocarbons, despite our impressive decarbonisation of electricity generation in which, by 2017, an estimated 69% of electricity demand in Scotland could be met by renewables. Looking out to 2050, almost all scenarios confirm that, even in the context of an ambitious decarbonisation of heating and transport systems that is consistent with our

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9 Oil & Gas UK Environment Report 2017 https://oilandgasuk.co.uk/environment-report.cfm
climate ambitions, oil and gas will continue to play a significant role for decades to come in meeting future global energy demand. Demand for gas, in particular, is expected to continue to rise until the middle of this century.

12. A strong and vibrant domestic offshore oil and gas industry will therefore play an essential role in Scotland’s future energy system, with the sector’s expertise invaluable in terms of innovation and deployment of technology, while supporting jobs and skills.

13. The latest Environmental Report published by Oil & Gas UK shows strong progress on carbon intensity, with North Sea oil and gas production increasing and greenhouse gas emissions from production continuing to fall. This is encouraging and provides a strong basis for the oil and gas industry to continue to reduce the carbon intensity of the global energy mix, and to explore new business models which further increase the penetration of lower carbon technologies.

14. Scotland’s Climate Change Plan recognises that Scotland has a well-established oil and gas sector and a proud engineering heritage which will help our transition to a low carbon, sustainable economy.

15. Supporting continued investment in oil and gas exploration and production and in renewable and low carbon solutions will provide Scotland with the energy system we need for the 21st century. Scotland’s rich energy history and expertise will support greater internationalisation by strengthening our renewable supply chains and research dissemination. All of these factors will work towards our overarching aim of producing sustainable, inclusive growth.

16. As outlined in the Scottish Government’s *Energy In Scotland* publication, oil and gas account for around 90% of total primary energy in 2016 – this dependency on hydrocarbons is not unusual and is a position we share with other northern European nations such as the Netherlands. Fossil fuels meet the majority of Scotland’s heating and transport demand, as well as help fulfil significant export demand in the rest of the UK and Europe.

17. In 2016, total oil and gas production in Scottish adjacent waters accounted for 82% of total UK hydrocarbon production.

18. Scotland (including Scottish adjacent waters) produced 63% of total UK gas production in 2016-17 and 96% of crude oil and natural gas liquids production in the same year.

19. While the UK as a whole has significant dependency on imported gas, in 2016, Scottish gas production (25.9 million tonnes of oil equivalent) represented over six times that of final consumption (4.0 mtoe).

20. The UK Continental Shelf currently provides more than half of the entire UK oil and gas demand.
21. Oil and gas will still provide two-thirds of total UK primary energy by 2035 according to the Department for Business, Energy & Industrial Strategy, and therefore, as is the case for Scotland, needs to be vital component of an energy policy that considers affordability, security of supply and environmental sustainability.

**Energy Jobs Task Force**

22. In early 2015, as a timely intervention following the downturn in the sector, the Scottish Government set up the Energy Jobs Task Force (EJTF) - a strong partnership of industry, public sector and trade union representatives to help tackle the immediate challenges facing the energy sector.

23. Chaired by Scottish Enterprise (SE), the EJTF met quarterly and reported to the Scottish Energy Advisory Board with the aim of retaining and growing talent and skills in the industry, identifying and implementing support to people who were facing, and continue to face, redundancy and enhance partnership and collaboration.

24. The EJTF held its last meeting in September 2017, which was attended by the First Minister. At that meeting, the EJTF transferred ownership of the five workstreams to SE and partners, whose activities in continuing the legacy workstreams of the EJTF are now to be reported to the Oil and Gas Industry Leadership Group (ILG), which is jointly Chaired by the Minister for Energy, Connectivity and the Islands, and his industry Co-Chair.

25. The five workstreams of the EJTF were:

   a. Retain Talent and Skills - Skills Development Scotland, OPITO and the Oil and Gas UK HR Forum
   b. Supporting Our People - Skills Development Scotland
   c. Cultural Change and Leadership - Scottish Enterprise, Oil and Gas UK, Trade Unions and the Industry Leadership Group
   d. Business Resilience - Oil and Gas UK, Scottish Enterprise, Highlands and Islands Enterprise, Opportunity North East
   e. Balanced Messaging - Oil and Gas UK, Scottish Enterprise

26. The workstreams have delivered considerable support to the sector, see Appendix 1, including:

   a. In 2016, the launch of a 3-year, £12 million Transition Training Fund (TTF) to support individuals and help the sector retain talent. The latest figures show that, early in its third year of operation, 3,356 people have had applications approved – already surpassing TTF’s initial aim of supporting 3,000 participants over the three years of funding.
   b. The PACE programme has focused significant efforts in the North East – 5 PACE job events aimed at the oil & gas industry were attended by over 4,200 people.
c. The need for a clear long-term vision for the UK oil and gas industry was identified at the EJTF Values and Principles Workshop in May 2016. The purpose of Vision 2035 is to:
   i. Provide direction and instil confidence
   ii. Inspire transformation and drive collaboration
   iii. Create competitive advantage
   iv. Secure investment and drive value
This work will also help shape the oil and gas elements of the UK Government’s emerging Industrial Strategy and the industry’s Sector Deal proposal. Oil & Gas UK and the Oil & Gas Authority agreed to jointly lead the project and have already engaged with hundreds of organisations and individuals.

d. Enterprise agency support from April 2017 to February 2018 includes 442 oil and gas companies supported by 956 Scottish Enterprise projects. Further tailored support has been provided to 41 Companies, with a further 38 in the pipeline, to diversify into Offshore Wind, Low Carbon Heat, Water and Decommissioning through SE's Expert Support Mode.

Oil and Gas Industry Leadership Group

27. The Oil and Gas Industry Leadership Group (ILG) was created to bring together key figures from the private and public sectors to provide a strategic forum for discussion and to ensure partnership, collaboration and alignment between different parts of the industry. Following a refresh in late 2017, and reflecting the Vision 2035 strategy, the Oil and Gas ILG will have a clear difference from the original group in that it will:
   a. Have a stronger focus on supporting and developing the supply chain;
   b. Take an action orientated role to drive forward progress to support the sector through leading on strategic issues, improving performance, and growth opportunities in areas such as: subsea, decommissioning, diversification, international, and, future skills challenges;
   c. Provide oversight and challenge on the progress of former EJTF workstreams; and
   d. Have a smaller membership to allow for more focused discussion.

28. Following the first meeting of the re-focussed ILG in May 2018, the following three sub-groups were created:
   a. Supply chain Sub-Group, whose vision is to anchor the supply chain in Scotland by leveraging maximum value; generating further additional long term value for the Scottish economy from both global oil and gas and from diversified industry growth;
   b. Skills and training challenges sub-group, the group will be a single, unified voice on skills to government, capturing what is already being done and what can be done differently to formulate a 20-year industry led solution with clear targets; and
   c. EJTF legacy workstreams oversight sub-group, the EJTF transferred ownership of its five workstreams to Scottish Enterprise and partners,
whose activities in continuing the legacy workstreams of the EJTF are now to be reported to the ILG.

**Decommissioning Challenge Fund**

29. The Scottish Government wants to ensure that the Scottish supply chain captures the economic opportunities from decommissioning processes that are an important part of a field’s lifecycle. We are committed to ensuring that decommissioning in Scotland is executed in a safe, environmentally sound and cost effective manner. Over the next decade, our oil and gas sector must capitalise on a decommissioning market that is forecast to be valued £17 billion over the period to 2025.

30. The Scottish Government’s initial, £5 million Decommissioning Challenge Fund (DCF), which aims to support feasibility work and innovation in respect of decommissioning, delivers a key Programme for Government commitment and supports the ambitions outlined in our Energy Strategy and Decommissioning Action Plan.

31. Following the announcement of the Decommissioning Challenge Fund (DCF) in February 2017, over £4.8 million has been successfully paid out by the end of April 2018. Grant offers were made to 13 projects across 4 categories; Feasibility Studies, Technical Innovation, Port Infrastructure and Capital Equipment. Project highlights include:

   a. Funding for Europe’s largest fixed crane at the Port of Dundee;
   b. Funding to rejuvenate Kishorn dry dock, last active in 1992 to create the caissons that support the Skye Bridge; and
   c. Funding assistance to replace dry dock gates at the Imperial Dry Dock in Leith enabling a new market in decommissioning of oil and gas support vessels to develop.

32. Amongst them the projects will have leveraged over £3.5 million in match funding from private funders and other sources. It is estimated that these early projects will help support over 200 jobs across the Scottish Economy. Funding for feasibility studies have accelerating work towards the expected delivery of over £112 million of further port development.

33. A separate grant award of £1.9 million has been made to the Oil and Gas Technology Centre, in addition to the Scottish Government’s commitment of £90 million towards the OGTC investment within the context of the Aberdeen City Region Deal, of which I say more later. The £1.9 million in funding, through this partnership, will allow the DCF to support investment in capital equipment for the Decommissioning Centre of Excellence (DCofE) based at Aberdeen University’s facilities in Newburgh, Aberdeenshire.

34. The DCofE will continue to implement the aims of the DCF by working directly with Scottish supply chain companies to strengthen their capability and help them capitalise on the market opportunities. DCF funding will catalyse the existing City
Region Deal funding and industry investment, accelerating the pace of membership, innovation projects and the deployment of new technologies. It will help create a distinctive combination of academic capability and industrial application, with cutting-edge technology for collaboration and testing.

35. The DCF also funded a market capacity study that sets out the existing capacity in Scotland to undertake decommissioning, and a floating capacity study that has provided market intelligence on the potential decommissioning market for floating structures and supporting vessels. This revealed there is greater potential in this sector than previously thought.

Enterprise and innovation

36. The Scottish Government plays a strong role in enterprise and innovation to drive improved productivity, competitiveness and growth in the oil and gas sector. The Scottish Government’s vision is for a Scotland where innovation is an intrinsic part of our culture, our society and our economy. Our long term ambition is to boost Scotland’s innovation performance to match the levels of the best performing countries.

37. The Scottish Government believes that Aberdeen and the North East are key to driving future growth and prosperity in Scotland. That is why we are investing through a City Region Deal agreement with the UK Government to help cement Aberdeen as one of the world’s leading cities for investment and business.

38. The Oil and Gas Technology Centre, funded by Scottish and UK Government through the Aberdeen City Region Deal, has made substantial headway since its opening in February 2017. The OGTC has screened 400 technologies, co-investing £37 million in 72 industry led projects with a pipeline of 10 field trials to test and trial new technologies in an operational environment.

39. The Scottish Government has also supported the Innovation Centre programme through the Scottish Funding Council which has committed up to £120 million into the programme. The 8 Innovation Centres have delivered ambitious collaborations between businesses, universities and others to capitalise on Scotland’s world-class research.

40. The Oil and Gas Innovation Centre, as one of the 8 Innovation Centres, brings top quality research and development expertise to the oil and gas industry innovation challenges. The OGIC has approved 26 projects and facilitated over 50 collaborative projects to date with organisations across the oil and gas sector.

41. An example is where Robert Gordon University and the University of Strathclyde are working with Cambridge based Corrosion RADAR Ltd to help take the company’s new remote monitoring and analytics system to the next stage. The device will monitor corrosion under insulation to help locate problem areas within complex pipeline networks delivering predictive maintenance capability and improving offshore safety.
42. CENSIS, the Innovation Centre for Sensor and Imaging Systems (SIS) technologies also collaborate with the oil and gas sector. Hydrason Solutions designs and manufactures advanced sonar systems for underwater acoustic surveys, providing solutions to industry challenges that cannot be tackled with existing sensors. With funding from CENSIS, the company together with researchers from the Ocean Systems Laboratory at Heriot-Watt University investigated how their wideband sonar systems may be further enhanced by the university's WACEMM smart imaging system. The project outcomes have the potential to give Hydrason a critical competitive edge in its existing marketplaces, while also allowing for expansion into new markets such as fisheries surveying.

43. Likewise the Data Lab Innovation Centre, with its focus on innovation and development of new data science capabilities is working with the oil and gas sector. Integrated subsea service provider, N-Sea, and the University of Strathclyde have secured substantial funding and support from the Data Lab Innovation Centre for an innovative research project to automate subsea pipeline inspection. The objective is to automate the inspection process and operate ROVs at previously impossible speeds thereby transforming pipeline inspection operations.

Scottish Government calls for reforms to fiscal policy

44. The Scottish Government also worked with stakeholders to support and champion the introduction of Transferable Tax Histories by the UK Government at the 2017 Budget. The aim of this measure is to ensure that there are minimal barriers to late life asset transfers and help facilitate “assets being in the right hands”.

45. Given the low levels of exploration and significant falls in investment over recent years, the Scottish Government continues to believe that further support is required to provide support to the supply chain and ensure a sustainable future for the sector which Maximises Economic Recovery and supports the sector’s highly skilled workforce and valuable assets.

46. As set out in the Scottish Government’s Programme for Government, we will continue to push the UK Government to provide further support to the industry.

47. This includes bringing forward measures to improve exploration and attract fresh investment. Exploration activity remains near record lows, and greater activity is urgently needed if we are to Maximise Economic Recovery and unlock the up to 20 billion barrels of oil equivalent remaining while providing an immediate boost to the supply chain.

48. The need for a clear long-term vision for the oil and gas industry was identified at the Scottish Energy Jobs Task Force, and the resulting ‘Vision 2035’ sets out the industry’s aim to unlock an additional £290 billion of revenue to the UK economy through the supply chain capturing a larger share of export markets and through increased oil and gas production.
49. The Scottish Government will continue to press the UK Government to provide its full and appropriate support to the industry’s ambitions to increase the total economic value of the North Sea, including delivering a strong Sector Deal.

Wrap up

50. There are increasingly positive signs for the sector in the year ahead with increasing investment, the results and activity from the 31\textsuperscript{st} licensing round and transferable tax histories coming into effect – the latter being a key change we had called for and warmly welcome. Indeed the industry now talks openly about a mood of determined optimism, after the cautious optimism of 2017.

51. The improved sector sentiment is tempered by the recognition that the business environment for the supply chain is demanding, as a consequence of efficiencies in lift costs and depleted balance sheets, and there is an evident need for more exploration and drilling activity to sustain domestic supplies of oil and gas from the early 2020s onwards. The Scottish Government will continue to work with our Enterprise Agencies and all stakeholders to support the supply chain in any way we can using our devolved powers, but UK Ministers need to use the powers at their disposal to do likewise.

52. As set out in the Scottish Government’s Energy Strategy, Climate Change Plan and Programme for Government. We will support investment, innovation and diversification across our oil and gas sector, working with industry to advance key priorities such as maximising the recovery of remaining resources, subsea engineering, decommissioning and carbon capture and storage – collaboratively addressing the challenges of today and preparing the sector and its workforce for a positive and sustainable role in Scotland’s future energy system.

PAUL WHEELHOUSE

July 2018
Appendix 1

Post Taskforce Workstreams Update

ONE and SE - jointly funded Decommissioning and Diversification project launched November 2017 aimed at SMES in the Oil and Gas supply chain across Scotland

Oil & Gas UK is developing a roadmap to Vision 2035 and the oil and gas sector deal is based around the opportunity identified by Vision 2035.

Pilot to run from April 2018 - March 2019

Support to Companies
April 2017 - February 2018
447 oil and gas companies supported by 956 SE projects
Support provided to 41 Companies with a further 26 in the pipeline, to diversify into Offshore Wind, Low Carbon Heat, Water and Decommissioning through SE Expert Support Made.
HIE for one to one business support to companies

12 significant O&G announcements including: ION Geophysical R&D announcement, trade missions to East Africa, LACOG and North America, the international supply chain survey results and Scotland’s partnership with Japan which was announced at Offshore Europe.

136 Innovation themed engagements
104 Grants approved or accepted
18 projects currently being appraised
£6.3m of SE support for projects valued at £15.7m

International 2017/18
- 81 Companies supported to significantly increase sales revenue
- 11 successful Inward Investment projects
- 39 HVA jobs
- 64 jobs created

Transition Training Fund (TTF) has now supported over 3,000 approved funding applications

Skills Development Scotland
- 2,000 modern apprentices in training
- 109 modern apprentices re-employed
- 80 attraction apprentice applications have been approved

Efficiency Taskforce
Cultural Change and Leadership
- Efficiency Task Force Roadshows
- Efficiency Hub
- Efficiency Champions Network

Publications:
OPITO/RGU - UKCS workforce dynamics review published 10 May 2018
Sparrows Offshore case study as example of best practice to the sector