European and External Relations Committee

The EU referendum and its implications for Scotland

Written submission from Onshore Oil and Gas Industry

UKOOG is the representative organisation for the onshore oil and gas industry in the UK. We are pleased to provide our own thoughts on the current position with respect to Scotland, the rest of the UK and Europe.

We believe strongly that there are significant benefits to Scotland in both the extraction of onshore oil and gas, and in being at the forefront of a much wider supply chain operation for the UK and beyond into Europe, building on our decades of experience in the North Sea.

Energy and in particular oil and gas has a vital part to play in Scotland’s international positioning:

- Energy accounts for 18% of all Scottish exports;
- 73% of all primary energy in Scotland is exported;
- Oil and gas accounted for 88% of Scottish energy exports in 2013.

However, the trends are set downwards with the UK and therefore Scotland becoming more reliant on foreign sources of gas and oil in the future. In 2015, net energy imports (crude oil, oil products, coal, gas and electricity) cost the UK around £14bn. UKOOG projections show that in 2030 gas imports alone could cost the UK economy £10bn per annum.

Gas also plays an important role in Scotland’s domestic economy, with 79% of domestic heating provided by gas. Industrial and commercial gas consumption makes up 43% of all gas consumed in Scotland. Total domestic gas consumption has decreased by 22% between 2005 and 2014. Rising gas prices and improved energy efficiency in homes and boilers were contributing factors to this trend. However, over the same period, non-domestic gas consumption has also reduced by 20% which may be in part driven by efficiencies but may also be driven by a reduction in manufacturing output in Scotland.

Currently most natural gas consumed by industry is in Falkirk and Fife which is unsurprising given the manufacturing bases in both of those regions. Principal in this is the Grangemouth site which employs directly 1,300 people and indirectly up to 6,000. The requirement for gas at this site as a feedstock used to make chemicals but also as an energy source is by far the largest in Scotland.

Gas plays a vital part in providing our everyday energy needs, and will continue to do so for many decades to come, even in the most optimistic renewable scenarios. Gas also provides essential raw materials for the production of a wide range of modern materials such as plastics and composites, and many other vital chemicals.

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2 Office for National Statistics, BQNE and BQNH data series

UKOOG believes that shale gas has a big part to play in the continuing and successful decarbonisation story in Scotland and wider afield. As an organisation we have always discussed decarbonisation issues in the spirit of not if but when. A move to a decarbonised power sector is already becoming a reality in Scotland but decarbonisation of heat, transport and other uses of gas are going to take much longer if it is to be done both economically and securely for Scotland.

Our position in a post UK Brexit or an England and Wales only Brexit remains the same. We have a fundamental decision to make - do we use all of Scotland's expertise and regulation to secure our own gas environmentally sensitively, or do we let others with less scrupulous credentials do it for us? Do we create our own jobs, or pay for jobs to be created overseas?

We believe that the Scottish Government needs to implement policies necessary to support a strong Scottish economy, built on a firm manufacturing base, to drive jobs and GDP. Manufacturing has seen a significant decline in recent years, a decline that can be accounted for by a number of reasons including education and skills, but also uncompetitive energy costs and lack of a secure supply of energy. Shale gas could change all that. Access to onshore oil and gas will support jobs and replace lost income resulting from a declining North Sea. A clear energy policy that supports industry in Scotland will help the country to grow stronger whatever the decision or outcome with respect to discussions with Europe.

Specifically, with respect to Brexit we believe there are number of issues that will require resolution.

1. Position of Energy Union – costs, security and climate change

The EU had previously started developing a much closer Energy Union, intending to provide “secure, affordable and climate friendly energy”. This Energy Union has five key aims: supply security (more efficient use of energy produced within the EU); a fully integrated energy market (free flow of energy across borders without technical or regulatory barriers); energy efficiency; emission reduction; and research and innovation (supporting breakthroughs in technology).

While there may be much in the press concerning free movement of people, the concept of free movement of energy is less well covered which essentially is at the heart of the energy union.

Therefore, as part of any negotiation, the UK will need to decide whether it is part of the energy union and what the implications are for consumers and industry.

UKOOG supports these broad aims of secure, affordable and climate-friendly energy, with an emphasis on homegrown energy and innovation for the future be it at a European, UK or Scottish level.

Recognition should also be given that Europe is also a net importer of energy:

- More than half (53.5%) of the EU-28’s gross inland energy consumption in 2014 came from imported sources.
- In 2014, some 30.4% of the EU-28’s imports of crude oil were from Russia.
• Russia’s share of EU-28 imports of natural gas in the same year was 37.5%⁴.

It should also be noted that gas production from the Marcellus field in the US has now reached the level of Russia’s exports to Europe:

• In 2015, Russian gas exports to Europe (including to non-EU countries such as Serbia), were 159 billion cubic metres⁵.
• In the same year, Marcellus production reached 160 billion cubic metres⁶.

Scotland is in a strong position to help fill this gap. Scotland is the largest oil producer and second largest gas producer in Europe with significant shale and North Sea resources and reserves. However, inside or outside the energy union, Scotland will need to give careful consideration to the provision of secure, low carbon and affordable energy to consumers and businesses in Scotland.

Without home-grown sources of energy this could prove to be extremely expensive at a time when emphasis needs to be on supporting a new and improved manufacturing base.

According to a recent PWC report on the impact of US manufacturing from shale development, the surge in shale gas production and consumption in the US has proven a genuine game changer, helping trigger a resurgence in US manufacturing⁷.

The American Chemistry Council in September 2014 had identified 197 chemicals and plastics projects (new plants, expansions or processes) in the US—tied to relatively inexpensive natural gas from shale formations—that are worth roughly $125 billion in potential new investment. The Council estimates that this new investment—of which 64 percent is from companies based outside the US—could potentially create over 700,000 jobs by 2023. Most of the projects identified are aimed at increasing production of ethylene, and ethylene derivatives⁸.

Scotland wouldn’t just be missing out on an economic opportunity but also an environmental opportunity. As Professors McKay and Stone have recently concluded, lifecycle greenhouse gas emissions from UK-produced shale are lower than for gas imported by LNG or long-distance pipeline⁹. And this conclusion isn’t surprising. Imported gas can come from parts of the world that lack the environmental safeguards we have in Scotland, and it takes a lot of energy to freeze gas, transport it on a ship and then re-gasify it at a British terminal.

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⁶ US Energy Information Administration, Shale in the United States, May 2016 (bcf per day figures multiplied by number of days in each month to provide annual figure, then converted to bcm) http://www.eia.gov/energy_in_brief/article/shale_in_the_united_states.cfm#shaledata
⁸ US Chemical Investment Linked to Shale Gas Reaches $100 billion, America Chemistry Council press release, February 20, 2014
As the GMB union has pointed out, we need to honestly consider the moral and environmental issues about transporting gas across oceans and continents and being increasingly dependent on gas from countries with regulatory and environmental and human rights standards lower than ours.\(^\text{10}\)

2. Environmental Regulation

Almost all the environmental regulations for onshore oil and gas are derived from 17 EU directives. Currently the UK has a good working relationship with the EU with respect to onshore oil and gas as the country is seen as the market leader with a gold standard of regulation and with considerable experience. The industry firmly believes that strong regulation is important regardless of whether the UK/Scotland is inside or outside the European Union.

If the UK (or Scotland) were to negotiate membership of an ‘energy union’, then it would not be unreasonable to expect that Scotland/UK will also need to agree to comply with related environmental regulation, in order to create a level playing field across the union. In this case, it would also be reasonable for the Government and industry to expect that changes to such regulation would be properly discussed and agreed across the energy union by its members.

Not to have this would put all energy producers in Scotland at a disadvantage.

As part of Brexit, the Scottish and UK Governments will need to consider how to enshrine current EU legislation into law in the respective countries and how this is enacted via parliamentary procedures in particular secondary legislation and statutory instruments. From a simple logistical viewpoint, it may be possible to “save” current legislation in some form, however what is less clear is how this continues in line with the rest of Europe.

The Scottish Government also needs to consider the implications for Scottish companies that may want to sell oil and gas into the EU, that may have to continue to comply with environmental legislation. That is, how would this be overseen and regulated in the post Brexit scenario.

Current models of countries outside the EU have shown differing results with acceptance of some but not all environmental regulation. The Scottish and UK Government will need to collaborate with industry to ensure that the appropriate level of environmental protection is maintained – careful consideration will need to be given to detailed EU best available techniques standards (BREFs), the requirement for environmental impact assessments and in particular the new EIA directive which has to be implemented prior to June 2018.

3. Availability of skilled labour

The onshore oil and gas industry has taken the skills agenda very seriously from the beginning. Following the publication of an analysis of the skills and supply chain gap

in 2014xi, the National College for Onshore Oil and Gas was set up using five current colleges and universities as bases including Strathclyde University in Glasgow. The vision for the college is to train the next generation of petroleum engineers, planners and environmental specialists. It is vital that the Scottish and UK Government continues to support this initiative.

The college will create highly skilled personnel capable one day of being part of the next export drive for Scotland and the UK. However, oil and gas is a global business and in the short term skilled personnel may be required from overseas – any post Brexit scenario should ensure that this continues to happen.

4. Research

Scotland and the UK has been at the forefront of research into the wider oil and gas industry for decades and more recently in terms of onshore. This has been aided by European funding and collaboration. This research has enabled significant efficiencies and also improvements in environmental regulation. This sort of research needs to continue alongside how fossil fuels can be managed in a more climate conscious world. Prime examples of this could include carbon capture and storage as well as hydrogen applications where the hydrogen is generated from natural methane.

As part of any European review, the Scottish Government needs to give careful consideration into how this type of research is funded in the future. Consideration should also be given to creating centres of excellence for the onshore oil and gas industry that allows this research to flourish with the potential to export the resultant techniques and improvements.

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