

Introducing the industry



You've probably read articles or watched news bulletins that refer to the UK's oil and gas 'industry'. But what does this really mean?

It's difficult to condense something with so many different parts to it, that employs over 270,000 people, down to just one word. In fact, it would be impossible!

That's why we want to take this opportunity to introduce ourselves, the oil & gas 'industry'. We are the industry that, for 50 years, has delivered the oil needed to fuel your car, the gas you need for your hob or boiler and the chemicals you need for countless everyday essentials, from toothbrushes and contact lenses to laptop cases and mobile phones. At present, oil and gas provides more than 75 per cent of the UK's total primary energy (all energy forms found in nature that have not yet been processed for human consumption).

Life offshore

Some of you will know us for the hundreds of rigs and platforms scattered across the North Sea, which we use to extract the oil and gas we use in our daily lives. In the sea around our country 36,000 km of pipeline – equivalent to the distance from Aberdeen to Adelaide and back again – links almost 300 platforms with the shore.

Thousands of people, mainly from the UK, work in the industry alongside colleagues from all corners of the world. Some work offshore on objects like rigs and platforms, spending weeks at a time away from land, essentially becoming a resident of a mini town located on a floating platform. The North Sea – the home of the UK's offshore activity is still one of the world's most active offshore oil and gas regions, with 173 rigs.

For many workers on the rigs, their journey offshore goes via the city of Aberdeen. From here, thousands of people are either helicoptered or taken on boats to rigs located several hours from dry land. Some of these huge rigs are fixed to the sea floor and if stood on ground, would be considerably taller than The Shard.

But that's only half of the story...

It's not just technicians and operators who work offshore – jobs will probably fall into one of four categories; exploration, design and construction, installation and operations and management. There's also healthcare and cleaning personnel and the kitchen team –all essential for maintaining morale and keeping teams well fed. At the same time, this offshore workforce is supported by people in businesses of all sizes across the UK, from Shetland to Southampton and beyond.

We recently spoke to Teesside-based safety expert Neil, who shared more of an insight into what his typical day offshore involves.



It's important to remember though that the oil and gas industry is not just focused on offshore activity. In fact, only about 10 per cent of the industry workforce work offshore. The majority work in communities up and down the UK, including in energy hubs like Teesside.

So, how exactly do we get oil and gas out of the ground?

Over the course of the Earth's history, gas and oil has formed from the remains of marine algae or land plants settling under the sea or on land. Over millions of years these remains gradually change with heat and pressure or layers of sediment that pile up until they become oil or gas. By that time the oil or gas is trapped creating reservoirs under deep layers of rock hundreds or thousands of metres thick. In some countries these underground reservoirs are on land, but here in the UK they are mainly under the sea. Finding these reservoirs requires the work of geologists that use special seismic technology to work out the structure of the rocks helping them figure out where the oil or gas might be located.

Once a reservoir is found, drilling takes place. Large drills – often as thick as tree trunks – are required to get through very deep layers of silt and rock. Once the drill hits its target the well has special equipment installed on top of the hole to control the flow of oil and gas through a pipe to a waiting rig. Technology allows for several kilometres of wells to be serviced by a single oil rig, thanks to the development of curved – or directional – drilling.

Of course, this is a very simplified introduction to the extraction process, and taking care of all these undersea pipelines and control systems requires highly trained deep-sea divers, subsea robots and other technology. We're always innovating, and, today, new technologies such as subsea completion systems and robots are again changing the game – but that's a story for another day.

Positive about energy, positive about the future

Together, these processes, people and the businesses are helping create pathways to cleaner, greener futures while also meeting the energy demands of today.

As always, we encourage any feedback, stories or questions you have about oil and gas. Get in touch at info@positiveaboutenergy.com.