

Energy Insight:

Energy implications of Brexit

The UK is far from self-sufficient in energy because, despite the increase in production of energy from renewables, the decline in the production of indigenous oil and gas has required an increase in imports. The Office of National Statistics (ONS) in August 2016 published relevant statistics: [UK energy: how much, what type and where from?](#)

Despite the shortfall, the UK still exports some oil, gas and electricity, but halting those exports, even if possible, would not make up the deficit.

Gas

Supply and demand of gas in the UK

GWh	2015	2016p
UK Indigenous	460,268	476,744
UK Imports	492,382	521,586
<i>of which LNG</i>	<i>152,397</i>	<i>121,952</i>
UK Exports	161,575	124,866
Total Supply	794,170	892,838
Total Demand	792,346	891,799

Source: Simplified table from [Energy Trends](#) March 2017

Provisional figures from the Department for Business, Energy & Industrial Strategy (BEIS) ([Energy Trends March 2017 table 4.3](#)) show that in 2016 the UK:

- **imported a total of 397,067 GWh** of gas from Belgium, The Netherlands and Norway; and
- **exported a total of 116,788 GWh** of gas to the same three countries plus the Republic of Ireland, thus
- registered a **net deficit of 280,279 GWh** from EU Countries plus Norway.

Imports from Belgium increased from 2 to nearly 5.5 thousand GWh, helping to counteract the sharp drop of imports of LNG from Qatar caused by strong demand from Asia.

LNG accounted for 121,952 GWh of the total gas imported into the UK, mainly from Qatar, but the UK also exported 5,511 GWh to various places such as Brazil, Pakistan, Trinidad, UAE and USA.

Countries exporting gas to the UK also export gas elsewhere, as shown below:

Gas Exports in Million Cubic Meters(MCM) 2015

Gas Exports	From	From	From
To	Belgium	Netherlands	Norway
Belgium	-	9,681	14,100
France	1,184	6,973	17,616
Germany	172	20,462	48,313
Greece	0	0	156
Italy	0	8,213	0

Netherlands	269	-	877
Portugal	0	0	86
Spain	0	0	588
Sweden	0	0	215
Switzerland	0	552	0
UK	17	3,786	28,590
Other	52	1,295	4,226
Total Exports to world	1,694	50,962	114,767

[Natural gas information 2016 - with 2015 data](#). IEA, 2016. Table 26.

Notes - no figures for Ireland were recorded by the IEA for 2015; Norway exports gas to countries all around the world

According to the IEA figures, in 2015:

- EU countries (other than the UK) plus Norway exported a total of 216,018 MCM of gas to other countries around the world.
- They exported 32,393 MCM to the UK, or just under 15% of their total exports.
- If Norwegian figures are ignored, exports from the EU to the UK accounted for only about 3.75% of their total gas exports.

Countries who import gas from the UK also import from elsewhere - see below:

Gas imports	Imported by:		
Imported from:	Belgium	Ireland	Netherlands
Denmark	0	0	577
Germany	233	0	1,601
Netherlands	7,390	0	-
Norway	5490	0	21,329
UK	3,009	4,234	5,760
Qatar	2,524	0	0
Russia	0	0	8,006
Other	0	0	8,621
Total imports	18,646	4,234	37,888
% of total imports from	16%	100%	15%
% of total imports from	84%	0%	85%

Oil

According to provisional figures published in [Energy Trends Section 3](#), BEIS, March 2017, in 2016 the United Kingdom:

- produced a total of 47,874 thousand tonnes of oil and NGLs;
- imported 42,560 thousand tonnes and
- exported 33,312 thousand tonnes

The UK was therefore a net importer of +24,730 thousand tonnes of crude oil.

UK imports

According to the IEA, in 2015, only 2% of UK crude oil was imported from EU countries; 50% came from Norway, 16% from Algeria, 12% from Nigeria, and the rest from other Non-EU Countries. ([Oil Information 2016- with 2015 data](#). Table 8a IEA 2016)

UK exports

The EU (90%), specifically the Netherlands (39%), Germany (28%), France (10%) and Spain (8%) are the top export destinations for UK oil. ([% from Oil Information 2016- with 2015 data](#). Table 9 IEA 2016)

3% of the oil that France imported came from the UK; this figure was 11% for Germany; 8% for the Netherlands and 3% for Spain.

EU members can see a more detailed breakdown of figures on our Energy Insight: [Trade: UK crude oil exports \(DSS08\)](#)

Electricity

The UK imports and exports electricity, to and from France, Ireland, and the Netherlands.

Total net imports of electricity into the UK in 2016 were 17.5 TWh, down 16.2 per cent compared to 2015.

The UK has remained a net importer since Q2 2010.

Total net imports in Q4 2016 were 1.5 TWh, the lowest amount since Q4 2011.

Ref: [Energy Trends Section 5 Electricity](#) BEIS, March 2017

Trade Costs

A 2017 [study commissioned by Oil and Gas UK](#), the trade association representing the UK offshore oil and gas industry, concluded that reverting to WTO trade rules could almost double the costs of trade between the UK and other EU countries from currently around £600 million per annum to around £1.1 billion per annum.

EU nationals in the energy workforce

- According to the Office for National Statistics, 92% of employees of the UK energy and water sector are UK nationals, while 4% come from EU countries other than the UK ("[International immigration and the labour market](#), UK: 2016", ONS, 2017).
- The afore-mentioned study commissioned by Oil & Gas UK deduced that 90% of those directly employed by the oil and gas industry in the UK are UK nationals, only 5% are non-UK EU nationals. However 50% of those hold managerial roles which are often critical for projects ("[Brexit and the UK oil and gas industry](#)", Oil & Gas UK, 2017).
- A study carried out by the think tank Social Market Foundation in partnership with Adecco Group UK & Ireland in 2016 assessed the role played by EU workers in the UK economy. It estimated that only 1% of employees of the UK gas, electricity and water sector are from EU countries other than the UK. However it was mentioned that the sample size for this sector was relatively small and the result should be treated with caution ("[Working together: European workers in the UK economy](#)", SMF and Adecco Group, 2016).

Policy

Energy Institute Brexit consultations

[Views of energy professionals on Brexit impacts, best levels for energy policy decisions](#), EI Energy Barometer, June 2016

[Energy and Climate Change Committee inquiry – Leaving the EU: implications for UK energy policy](#), Energy Institute response, October 2016

[Debate: Implications of Brexit for the energy sector](#), Energy Institute event summary, October 2016

How much of UK energy policy is shaped by EU policies?

[What will Brexit mean for the environment and Britain's green targets?](#) Emily Gosden, The Telegraph, 10 March 2017.

[Brexit: Energy Policy](#). Scottish Parliament Information Centre, 16 November 2016.

[Leaving the EU: implications for UK energy and climate change policy](#). Energy and Climate Change Committee, 15 October 2016

[Nuclear Industry Association comment on EU Withdrawal Bill](#)

[Leaving the EU: The EURATOM Treaty](#) IMechE, February 2017

Brexit implications for UK climate policy

[Meeting Carbon Budgets – Implications of Brexit for UK climate policy, Briefing note](#), Committee on Climate Change, October 2016

Brexit implications for UK energy security

[Brexit: energy security](#). House of Lords' EU Energy and Environment Sub-Committee. 29 January 2018