

# Powering Europe

The UK energy industry plays a vital role in the European economy. The energy sector is a large consistent contributor to the UK's finances paying £25 billion in direct contribution in 2013. The sector also supports around 680,000 jobs up and down the UK.

## The UK energy market

- ▶ The UK has one of the lowest domestic gas prices out of the EU 15 countries and domestic electricity prices that are the fifth lowest in the EU 15 countries.
- ▶ The UK has one of the most competitive energy markets in Europe. There are more than 30 companies actively involved in trading electricity through exchanges.
- ▶ In the UK there are 22 dual fuel energy suppliers, and a further five supplying either electricity or gas.
- ▶ Businesses use 70% more electricity than households in Great Britain. Households use 40% more gas than businesses.
- ▶ Switching levels in the UK are over 250,000 every month.
- ▶ Over 1.5 million households have switched their electricity supplier so far this year.

## Energy supporting UK employment

- ▶ The energy sector supported 680,000 UK jobs in 2013.
- ▶ The energy sector employed 131,000 people directly in 2013 compared with 90,000 in 2008.
- ▶ Out of all jobs in the UK, 1 in 44 is in the energy sector.

## Energy Investment

- ▶ The sector invested £13.1 billion in infrastructure in 2013.
- ▶ Provided £25 billion in direct contribution to the UK economy, and an additional £71 billion through indirect contribution in 2013.
- ▶ In 2013, the energy sector paid £5.7 billion in tax with more coming from business rates, the climate change levy, the renewable obligation and carbon price floor.

The term 'Energy Sector' refers to the power and gas sector as below, unless otherwise stated.

**Electricity sector:** generation, transmission, distribution and supply.

**Gas sector:** transmission, distribution, storage and supply.

## UK energy prices compared with other markets

UK residential end-user electricity prices are below average when compared with other markets in Europe despite a large amount of investment which has been driving up costs. Gas prices are the lowest amongst the European countries analysed.

## Competition

The number of suppliers seeking domestic customers is at an all-time high of 27. In addition, five more companies were selling either gas or electricity to households;. At 31 January 2015, 12 companies were competing with the six major suppliers to provide households with dual fuel energy compared to six three years earlier.

The number of companies licensed to compete as suppliers in the electricity and gas market is increasing, there were 25 applications for gas supply licences in the year to 31 January 2015 and 27 applications for electricity supply licences; showing an increasing level of interest in competing in the electricity and gas markets.

Using the Herfindahl-Hirschman Index (HHI) measure of market concentration, where 1 is a perfectly competitive market and 10,000 is a monopoly; the UK energy market has seen consistent increasing competitiveness. The UK has a HHI measure of 947 in power-generation market, which is the lowest across Europe. The UK market has a 1,768 HHI measure in electricity retail market, which indicates that the UK energy market operates in a competitive market.

HHI of power-generation market in European countries		HHI of electricity retail market in European countries	
COUNTRY	HHI	COUNTRY	HHI
UK	947	HUNGARY	950
ITALY	1087	ROMANIA	1333
IRELAND	1150	SLOVAKIA	1500
SPAIN	1361	ITALY	1763
HOLLAND	1811	UK	1768
POLAND	1835	POLAND	2000
ROMANIA	1947	IRELAND	2200
HUNGARY	2151	HOLLAND	2264
SWEDEN	2650	SPAIN	2543
LITHUANIA	4092	BELGIUM	3000
CZECH REPUBLIC	5000	LUXEMBOURG	3136
SLOVAKIA	5280	CZECH REPUBLIC	4000
BELGIUM	5380	FRANCE	4500
LATVIA	7000	LITHUANIA	5000
LUXEMBOURG	7362	MALTA	10000
FRANCE	8880	CYPRUS	N/A
MALTA	10000	LATVIA	N/A
CYPRUS	N/A	SWEDEN	N/A

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## Energy in Europe

### Interconnection

Interconnectors are an important part of energy infrastructure. They were initially used by countries to strengthen security of supply but are now used for trading purposes and to promote competition. Interconnectors and play a crucial role in the EU strategy to achieve a competitive and integrated European energy market.

Britain's National Electricity Transmission System (NETS) connects to the European network through interconnectors with France, Northern Ireland, Republic of Ireland and the Netherlands. Britain's electricity market currently has 4GW of interconnector capacity:

- ▶ 2GW to France (IFA)
- ▶ 1GW to the Netherlands (BritNed)
- ▶ 500MW to Northern Ireland (Moyle)
- ▶ 500MW to the Republic of Ireland (East West).

There are four gas interconnectors which connect to the NTS. These are:

- ▶ UK interconnector to Belgium
- ▶ Balgzand to Bacton Line (BBL) to the Netherlands
- ▶ Moffat to the Republic of Ireland interconnector
- ▶ Langed gas pipeline to Norway

### Single market

The EU aims to fully integrate its energy markets, in order to give consumers and businesses more and better products and services, more competition, and greater security of supply. These benefits are likely to increase as the market becomes more integrated and physically interconnected.

Market coupling is an approach used to join together national wholesale markets in electricity. It uses implicit auctions rather than explicit auctions, where by transmission capacity and energy capacity is traded on separate markets. Electricity market coupling makes it possible to transmit electricity freely across the grids of the various European countries, and is carried out in collaboration with the power exchanges who match the electricity supply and demand. A market coupling system determines the price and amount of electricity to be imported or exported. The coupling will result in the creation of a larger European electricity market, which will ensure that consumers have a reliable electricity supply at competitive prices.