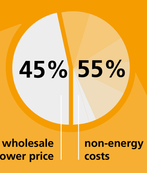
What makes up your bill: Power costs

The biggest single component of your electricity bill is the price your supplier pays for power: the wholesale price.
Unlike the other components making up your bill, the wholesale power price changes daily in response to several different factors.



Weather & seasons

- In a cold snap, people turn on the heating, pushing up the **price of gas**.
- In hot weather, people turn on the air-con, pushing up **demand** for electricity.
- In cloudy weather, solar panels generate less energy, reducing the overall contribution from **nuclear & renewables**.
- Wind speeds affect what wind turbines can generate, altering the overall contribution from **nuclear & renewables**.

Fuels

Electricity can be generated in various ways, each using different technologies and fuels. Which ones have the biggest effect on the wholesale power price vary according to demand. **Demand** varies according time of day, **weather and seasons**. The main fuels used in the UK are gas and coal; changes affecting either of these fuels can have knock-on effects on the power price.

Nuclear & renewables

In 2016 about 50% of the UK's electricity came from nuclear and renewables. The more electricity these sources are generating, the less we need from fossil fuels to meet **demand**, and vice versa.

Cost of carbon

Coal and gas power station operators must buy European emissions allowances (EUAs) to cover their emissions. These can go up or down depending on the amount of clean energy available.

Price of gas

This fuel is a major influence on the wholesale power price. In 2015 nearly 30% of the UK's electricity came from gas.

Price of coal

22.6% of the UKs electricity was produced using coal in 2015. The decline of reliance on coal will affect the price.

Balancing supply and demand

Because we can't store electricity on a big enough scale, the amount of electricity being generated always has to match demand for electricity exactly. When it looks like the UK may struggle to meet demand – if a power station has an unexpected outage, for example – the wholesale power price can spike as many short-term trades take place.

Access power price data and expert analysis by signing up at **marketinsight.edfenergy.com**

Exchange rates

Fuels like coal and gas are traded in US dollars and Euros, as is carbon. So the strength of the pound against these currencies affects the **price of coal, price of gas and cost of carbon**. Usually the weaker the pound, the higher the wholesale power price and vice versa.

Coal imports

The UK imports coal to supplement our own production. Many factors affect the price, for example the cost of freight, production problems in major export countries like Australia, South Africa or Venezuela, or the demand and stockpile levels of other major importers like India and China.

Gas imports

The UK imports about two thirds of its gas. This means production, pipeline and storage issues here and in nearby gas producing countries (like Norway and The Netherlands) can affect the **price of gas**, as can instability in countries the pipelines run through (like Russia and the Ukraine). Increasing use of LNG (liquefied natural gas) means gas can be transported even farther around the world, so events in even farther-flung regions, especially Asia, can also affect the **price of gas** in the UK.

Price of oil

Some gas contracts link gas prices to the price of oil, so when the price of oil changes, so can the **price of gas**.

Interconnectors

The UK imports about 5% of its electricity through interconnectors from France and the Netherlands. Issues with the cables or the power stations behind them can affect the UK's wholesale power price.

Sources

1. www.edie.net/news/10/The-UKs-ever-changing-energy-mix-2015-in-charts/29968/

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