

# The history of electricity

**600 BC**

This is when historians believe electricity was first discovered by a mathematician called Thales of Miletus. He is said to have realised that polishing a piece of amber with wool created a static charge, which attracted objects, like feathers. He was the first person to record his findings.



**1729**

A ground-breaking discovery is made that electricity is not just generated from rubbing materials together but that some materials carry electrical charges called 'conductors' and some don't ('non-conductors').

**1780-1850**

The Industrial Revolution takes place and production processes shift from hand-based technology to machines. Driving these huge changes was the steam engine, which became the main source of power in industry.

**1600**  
An English scientist, William Gilbert, first coined the word 'electricity' from the Greek word for amber: *elektron*.



**1800**

The first electric light is invented by English scientist Humphry Davy, which is followed by Thomas Edison's more famous invention of the first commercially viable light bulb – which went mainstream – in 1879.

The first electric battery (left) is invented, paving the way for the widespread delivery of electricity via wires.

**1868**

The first power station is designed and built by Lord Armstrong. He pioneered the use of hydroelectricity to power and heat his own house. You can visit this historic house today in Northumberland.



**1837**

The first commercial electric motor (below) was unveiled by Thomas Davenport.

**1881**

The small town of Godalming in Surrey attracted worldwide attention for becoming the first to install a public electricity supply. It did this via a mill's waterwheel on the local river, the Wey.



**1879**

For the first time, a utility company begins to sell electricity from its power station in San Francisco to customers via electric power transmission lines. This heralded a new era of bulk transfer of electrical energy.

**1883**

The first plug and socket is unveiled in England. The first electrical railway is constructed, purely for pleasure, on Brighton seafront. It's still in operation today.



**1884**

The modern steam turbine – which converts the thermal energy in steam into mechanical energy and, in turn, into electrical energy – is invented by Sir Charles Parsons. This led to cheaper, more abundant electricity and helped to advance marine transport and naval warfare.

**1886**

The first conversion substation was invented and enabled high AC voltages to be converted into manageable sizes, via a 'transformer', so electricity could be safely transmitted into homes.

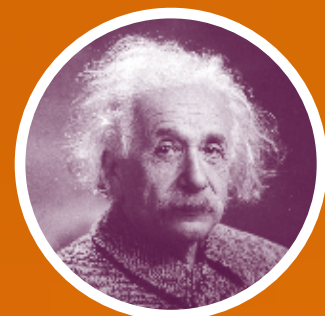
**LATE 1880s**

The 'War of the Currents' take place when Thomas Edison and Nikola Tesla clashed over which type of electricity supply was best. Edison argued for 'DC' (direct current), while Tesla advocated 'AC' (alternating current). Tesla won, but DC technology is still used for some devices.



**1887**

Wind turbines are used to produce electricity for the first time.



**1905**

Scientist Albert Einstein (above) kickstarts the science behind photovoltaic cells – the technology used in solar power – when he shows that light can produce electricity.

**1926**

Work starts on the National Grid so electricity can be made available to everyone easily and cheaply. By 1933, one in three British people have electricity at home.

**1928**

The first British pylon is erected, near Falkirk in Scotland. It takes another five years to put up the remaining 26,000 over the UK.



**1925**

Scottish inventor, John Logie Baird, gives a demonstration of the first televised images. He went on to achieve breakthroughs in the distance over which these electrical images could be transmitted. In 1928, he introduced the first commercially made television set (left) in the UK.



**1947**

Energy production is so compromised following World War II that US residents turn to solar power in their droves.

**1939-1945**

During World War II, electricity was a threat, as light allowed the enemy to identify places to bomb. Street lights were switched off during blackouts, and cars and traffic lights were fitted with shutters, which led to an increase in road accidents.



**1951**

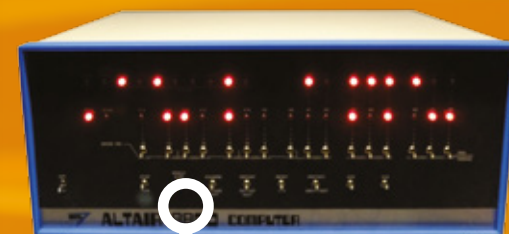
A power station in Idaho produces electricity from a nuclear reactor. This marked the start of nuclear power, or atomic power as it was then known.

**1956**

The first nuclear power station to generate energy on an industrial scale opens at Calder Hall in Cumbria.

**1974**

The computer is born. It is called the 'Altair' (below) but it isn't until a few years later that the 'PC' goes mainstream led by Apple, Tandy and Commodore.



**2000**

The first commercial wave power station in the world starts generating electricity from its base on the Scottish island of Islay, able to produce enough electricity for roughly 400 homes.



**2008**

The Climate Change Act becomes law and the UK Government pledges to cut carbon dioxide (CO<sub>2</sub>) emissions by 80% by 2050.

**2003**

Our reliance on electricity is demonstrated when New York City endures a massive blackout. People are stranded on subways, commuters sleep at work, travellers are stuck at airports and sewage plants malfunction.

**2013**

Electricity consumption from consumer electronics – like tablets, mobile phones and computers – has risen by 377% since 1970.

