

# Timeline: Nuclear power in the United Kingdom

Key events in the history of nuclear power in Britain



**Jessica Aldred**

guardian.co.uk, Tuesday 27 May 2008 00.01 BST

[A larger](#) | [smaller](#)



Sizewell B power station

**1934** Nuclear fission is first experimentally achieved by Enrico Fermi.

**1956** The Queen opens the first two 65MW dual purpose reactors at Calder Hall at Windscale (later Sellafield). The government says Britain has become "the first station anywhere in the world to produce electricity from atomic energy on a full industrial scale".

**1957** The government promises a nuclear power building programme that would achieve 5,000-6,000MW capacity by 1965.

The world's first nuclear power accident occurs at Windscale in west Cumbria, when a fire in the reactor results in a release of radioactivity. The then prime minister, Harold Macmillan, told the cabinet that he was suppressing the report that detailed the full extent of the disaster, defects in organisation and technical shortcomings. The facts were not made public for 30 years.

**1960** Government white paper scales back nuclear building plans to 3,000MW, acknowledging that coal generation is 25% cheaper.

**1962** Berkeley nuclear power station, situated on the bank of the River Severn, in Gloucestershire, begins generating electricity.

**1964** The Government white paper, The Second Nuclear Programme, says 5,000MW of new plants will be built between 1970-76.

This begins the era of advanced gas-cooled reactors (AGR) after other designs are rejected. Minister for power Fred Lee tells the House of Commons: "We have won the jackpot this time - we have the greatest breakthrough of all times."

Magnox reprocessing plant opens at Windscale for the dual purpose of producing plutonium for nuclear weapons and fast-breeder reactor fuel.

**1965** Proposed building programme for AGRs increased to 8,000MW.

**1966** First AGR construction begins.

**1977** Last of seven AGR stations is ordered for Heysham, Lancashire, to complete the 8,000MW programme. The Central Electricity Generating Board describes them as "one of the major blunders of British industrial policy."

**1979** Energy secretary David Howell announces 10 new pressurised water reactors (PWR) to be built, calling nuclear power "a cheaper form of electricity generation than any known to man".

**1983** Planning inquiry for the first PWR at Sizewell in Suffolk starts, lasting two years.

Government forced to abandon dumping of low and intermediate-level nuclear waste in the Atlantic following pressure from environmental groups.

**1986** The world's worst nuclear accident occurs at Chernobyl in Ukraine, then part of the Soviet Union.

**1987** Plans for Sizewell B approved.

**1988** Construction begins on Sizewell B, the first of a family of four PWRs that are planned but later abandoned.

The government decides to privatise electricity production and a "nuclear tax" is proposed.

**1989** Magnox reactors are withdrawn from electricity privatisation. The city refuses to buy the older stations because of decommissioning costs and the taxpayer is left with the bill.

AGRs and Sizewell B are withdrawn from privatisation because city investors discover that the cost of generating nuclear power is far greater than that of coal.

**1990** Nuclear levy is introduced to cover the difference between the cost of generating nuclear energy and coal, adding 11% to electricity bills.

The cost of building Sizewell B increases from £1.69bn to £2.03bn.

**1991** Government announces plans for a nuclear waste repository costing between £2.5bn and £3.5bn that would be completed by 2005.

**1992** International Atomic Agency says the building up of vast stocks of plutonium at reprocessing plants poses "a major political and security risk".

**1993** It is revealed that the 11% nuclear levy on electricity bills has not been put aside for dealing with decommissioning costs and waste, but spent on building Sizewell B. Economists estimate that the projected income from the levy between 1990-98 will represent a £9.1bn subsidy for the nuclear industry.

**1994** Government announces nuclear reviews, one into whether new nuclear stations can be built and the second into whether the industry can be privatised.

**1995** Government decides to make a second attempt to privatise AGRs and the still-to-be-completed Sizewell B.

**1996** Sell-off of the newer nuclear stations goes ahead. Despite calls for its cancellation because of delays and cost overruns, Sizewell B opens.

**1997** Two nuclear waste stores are to be built at Sellafield, to take intermediate-level waste for the next 50 years. Another 10 are planned for the future.

**1998** Deputy prime minister John Prescott signs agreement to progressively reduce concentrations of radioactive substances in the marine environment as a result of emissions from Sellafield.

**2000** In February, the British Nuclear Fuels chief executive, John Taylor, resigns over a scandal relating to faked safety records at the Sellafield plant in Cumbria.

**2002** Bradwell power station is shut down after 40 years of operation.

**2003** The government's 2003 energy white paper highlights the lack of planned new nuclear plants to replace decommissioned ones, but rejects the technology, saying "its current economics make it an unattractive option for new, carbon-free generating capacity".

**September 2004** The European commission launches legal action against the government over "unacceptable" failings in dealing with nuclear waste at Sellafield.

**May 2005** A leak of highly radioactive nuclear fuel forces the closure of Sellafield's Thorp reprocessing plant.

**October 2005** The government's chief scientific adviser, Sir David King, voices his support for a nuclear power revival, saying there are economic as well as environmental reasons for a new generation of reactors.

**November 2005** The then prime minister, Tony Blair, commissions a second white paper on energy policy and confirms that a new generation of nuclear power station's is to be considered. He says nuclear power is once again a serious option because "the facts have changed over the last couple of years".

**March 2006** The Sustainable Development Commission warns Tony Blair that there is "no justification" for a new nuclear programme.

**April 2006** The government's environment audit committee warns that a new generation of nuclear power stations would not be able to avert a serious energy crisis. The government has become "too focused" on nuclear energy, it says.

**May 2006** Tony Blair endorses a new generation of nuclear power stations in a speech to business leaders. He says the issue of a new generation of stations is back on the agenda "with vengeance". He is backed up again by King.

**July 2006** The new white paper confirms that nuclear power is back on the agenda. It says a mix of energy supplies is essential and that new nuclear power stations could make a significant contribution. The review says it will be up to the private sector to cover the costs of investment, decommissioning and storage of nuclear waste.

Major power generators such as E.ON and EDF welcome what they call an "important milestone".

**October 2006** Greenpeace launched a court action claiming that the government's consultation was "legally flawed".

**February 2007** Greenpeace wins its case and government launches a new consultation, which includes plans to treble the amount of electricity from renewable sources and signals a return to the government's nuclear agenda.

A Guardian/ICM poll shows opponents of nuclear energy narrowly outnumber supporters, by 49% to 44%.

**November 2007** New prime minister, Gordon Brown, calls for an acceleration of nuclear power in a speech to business leaders.

**January 2008** The government announces its nuclear plans. It backs a new generation of nuclear power stations.

**March 2008** Britain and France announce a deal to construct a new generation of nuclear power stations and to export the technology around the world. The deal will allow Britain to take advantage of French expertise in building new reactors.

**May 2008** Half a million people in the UK hit by power cuts as seven power stations, including Sizewell B, unexpectedly stop working.

**June 2008** Government inspectors warn that plans for a new generation of nuclear power stations may be delayed because of a shortage of skilled engineers.

**July 2008** In a speech to EU states, Gordon Brown calls for eight new nuclear plants to be built in as part of a 'nuclear renaissance' in the UK.

**September 2008** Business secretary John Hutton calls for a 'renaissance in nuclear power' in a speech to parliament.

French energy giant EDF finalises a £12.4bn deal to buy British Energy, which runs eight nuclear sites with land on which new reactors could be built.

**January 2009** Gordon Brown backs plans for a new nuclear power station at Sellafield, after the Nuclear Decommissioning Authority agrees to provide land for the building of two new stations adjacent to the old site.

**February 2009** Magnox Electric Ltd, the operator of the Bradwell-on-Sea nuclear plant, is found guilty of allowing a radioactive leak to continue at the site for 14 years between 1990 and 2004.

**April 2009** The government publishes a list of potential sites for a new generation of nuclear plants.

guardian.co.uk © Guardian News and Media Limited 2011