

New Nuclear Power Stations

Sizewell, Suffolk

The Government makes decisions about the UK's energy policy and it is set out in the Energy National Policy Statements (NPS) that were ratified in Parliament in July 2011. The NPS says that new nuclear power stations would play a vitally important role in providing reliable electricity supplies and a secure and diverse energy mix as the UK makes the transition to a low carbon economy. The NPS identifies eight sites, including Sizewell, as potentially suitable for new nuclear power stations by 2025.

Why new nuclear power stations?

Tackling climate change and ensuring the security of future energy supplies are two key energy challenges we face in the UK. Old nuclear and coal-fired power stations are closing, reducing the security of the energy supply we need for everyday life, and climate change is a big concern. Government's policy for moving towards a de-carbonised, diverse electricity sector by 2050 includes renewables, fossil fuels with carbon capture and storage, and new nuclear generation. Government's policy is that new nuclear power should be able to contribute as much as possible to the UK's need for 18GW of non-renewable new capacity by 2025.

Why Sizewell?

Sizewell's first nuclear power station, Sizewell A, operated from 1966 to 2006 and is being decommissioned. Sizewell B began generating in 1995 and produces around 1,200 megawatts of electricity, enough to meet the needs of about two million homes. It is currently projected to stop generating in 2035 but EDF Energy is working to extend the station's generating life. Sizewell was nominated by EDF Energy as a potential site for a new nuclear power station when the Department of Energy and Climate Change (DECC) was developing its Nuclear NPS. DECC consulted widely on the draft NPS before deciding that the site should be included as a potentially suitable site in the Nuclear NPS. EDF Energy's and Centrica's joint venture company, NNB Generation Company Limited (NNB GenCo), is proposing to build a twin reactor station that, if approved, would generate 3,200 megawatts of electricity, enough to meet the electricity needs of over five million homes.

What is the Environment Agency's role?

We are the principal environmental regulator of the nuclear industry in England and Wales. This includes regulating disposals and discharges of radioactive waste, discharges of cooling and process water and operation of standby generators. We also regulate other environmental matters such as discharge of surface waters and effluents during construction and we provide advice to others, e.g. on flood and coastal risk management. We work closely with the Office for Nuclear Regulation (ONR), who regulate safety and security, to ensure that any new nuclear power stations meet high standards of safety, security, environmental protection and waste management.



Have you and ONR assessed the reactor design that could be built at Sizewell?

We, with ONR, have been assessing the UK EPR™ reactor design in our Generic Design Assessment (GDA) process. This is the design proposed by NNB GenCo for Sizewell C. GDA helps make sure that the design would be acceptable if built in the UK and that people and the environment would be properly protected. Our assessment includes potential environmental impacts, including the radioactive wastes that it would create and the discharges that it would make. There are a number of issues that remain to be resolved. We are using this work to inform our decisions on site specific environmental permit applications from potential operators.

How is the Environment Agency involved with the proposed new nuclear power station at Sizewell?

Any company that wants to operate a nuclear power station will have to show that it can build, commission, operate and decommission it safely and securely, protect the environment and manage radioactive waste. If applications for environmental permits are made by NNB GenCo for Sizewell C, we would decide if permits should be issued and, if so, the conditions they include. Operational permits include disposals and discharges of radioactive wastes, operation of standby generators and discharges of cooling water and liquid effluent into the North Sea. Our other work relating to new nuclear build includes;

- providing information about the environment around potential sites enabling sound decisions;
- advising on the scope of and providing information for developers' Environmental Impact Assessments;
- regulating site investigation works that are needed to check sites are suitable for development;
- providing pre-application advice;
- responding to consultations run by Government, developers and local authorities;
- advising on flood and coastal risk matters for the proposed power station site and other sites where "associated" development is proposed in support of construction activities, for example to provide workers' accommodation, or park and ride facilities;
- providing advice and information to the Planning Inspectorate (PINs) about our regulatory matters;
- regulating sites for environmental matters during their construction, operation and decommissioning.

What are you doing on the key local issues?

We have a small team project managing our work relating to Sizewell C and associated development sites - providing advice to the company, for example on the potential risks of flooding, potential impacts on conservation sites, and the impact on water quality, fisheries and protected species. In 2011 the Shoreline Management Plan for the Suffolk coast was adopted. This plan looks at flood and coastal erosion risks over the next century and proposes ways of managing those risks. Policies in the plan will help inform flood and coastal risk decisions for Sizewell C.

What happens next?

NNB GenCo has stated that they will consult the public on their pre-application proposals in a number of stages. This is part of the planning process that would lead up to the company making an application to the Planning Inspectorate for a "Development Consent Order" (DCO) for the site. Decisions about whether a DCO should be issued are made by the Secretary of State who is informed by recommendations made by the Planning Inspectorate. NNB GenCo say that their first stage of consultation will consider the 'Initial Proposals and Options' for Sizewell C. Following Stage One consultation, the responses and feedback gathered will inform the development of plans, ahead of a second round of public consultation which will focus on the 'Preferred Proposals' for Sizewell C. The Environment Agency is also a consultee in this process and we will comment on NNB GenCo's proposals so far, providing advice on how they can ensure that they meet high standards of environmental protection.

How can I have my say?

Understanding and listening to the views of local people is very important. We consult with the public on applications we receive for environmental permits. We consulted on our Generic Design Assessment of the UK EPR™ new nuclear power station design in 2010.

In addition to NNB GenCo's consultations, certain other bodies will be seeking views as part of their decision making process on matters for which they are responsible.