



New nuclear power at

Oldbury

e.on



The Energy Challenge

Energy – how we use it and how we produce it – is one of the biggest issues facing the UK and the world today.

For decades affordable, reliable energy is something that we have come to take for granted but the world we live in and, more specifically, the climate, is changing.

The UK faces three major long-term energy challenges: climate change, which requires a cut in damaging carbon emissions; the need to deliver secure supplies of low carbon energy; and providing power at an affordable price to our homes and businesses.

Over the next few years many of the UK's large fossil fuel and nuclear power stations, on which we all rely, will reach the end of their working lives. To help keep the UK's lights on, the development of new power stations to replace those closing is urgently needed.

In the future, growth in electricity demand may also come from an increase in the use of electric vehicles to reduce the carbon emissions from petrol and diesel, and from the use of heat pumps for domestic heating. With UK reserves of gas in rapid decline, we will depend increasingly on imported gas to maintain secure supplies of electricity – unless we develop new forms of energy generation now.

HORIZON NUCLEAR POWER

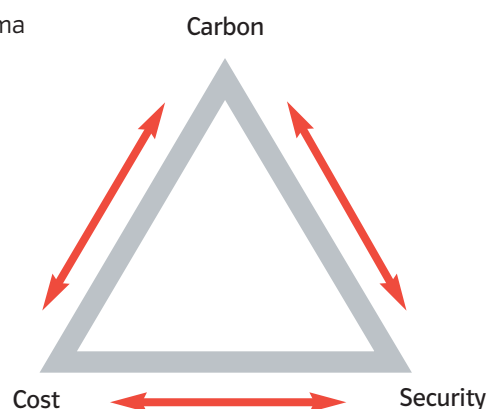
E.ON UK and RWE npower have recently announced further details of their nuclear joint venture, Horizon Nuclear Power Ltd.

The company began work from its new base in Gloucester on 16 November and is working to deliver around 6,000 MW of new nuclear capacity in the UK by 2025. Its £15bn investment programme could create up to 11,000 jobs.

In addition to Oldbury, Horizon Nuclear Power has also secured land at Wylfa on Anglesey, North Wales.

E.ON and RWE have interests in 23 nuclear reactors in Germany and Sweden, including jointly owning three reactors in Germany.

The Trilemma



Our challenge is to put in place measures that not only deliver against the global issue of climate change but also address the local issues of security and affordability of supply.

Nuclear power offers a constant, safe and reliable source of low carbon energy

Having a balanced mix of energy sources, in which new nuclear power generation is developed alongside renewables and other technologies, is the best way of maintaining the UK's security of energy supply while tackling the challenge of climate change.

This approach was affirmed in the Government's 2008 White Paper on nuclear power which stated that it is in the public interest that new nuclear power stations should play a role in the UK's future energy mix, alongside other low-carbon sources of electricity.

We believe that not replacing the nuclear power stations that will close in the next few years would almost certainly lead to a rise in our carbon emissions. It would also mean our security of supply would be increasingly dependent on imported sources of energy.

New nuclear power stations take time to develop and build, and the process needs to start now if they are to play a vital role in providing low carbon electricity supplies for the future.

Our proposals for new nuclear power at Oldbury



Oldbury and the surrounding area

In March 2009, land adjacent to the existing power station at Oldbury-on-Severn was nominated by E.ON and the Nuclear Decommissioning Authority (NDA) into the Government's process for identifying suitable sites for new nuclear build.

The 150 hectare site near the village of Oldbury, to the north east of the existing plant, is on land purchased from the NDA and local landowners.

Our plans for a new nuclear power station are based on proposals to install new electricity generating capacity of up to 3,300 MW¹ (megawatts) by 2025 and we already have an agreement in place with National Grid to connect this capacity to the high voltage electricity transmission system at this location in this timescale.

The station would provide approximately 6 per cent² of the UK's total electricity requirements and represent a significant reduction in its CO₂ emissions.

Horizon Nuclear Power, the joint venture established by E.ON and RWE npower, will be taking forward our project at Oldbury.

Why Oldbury?

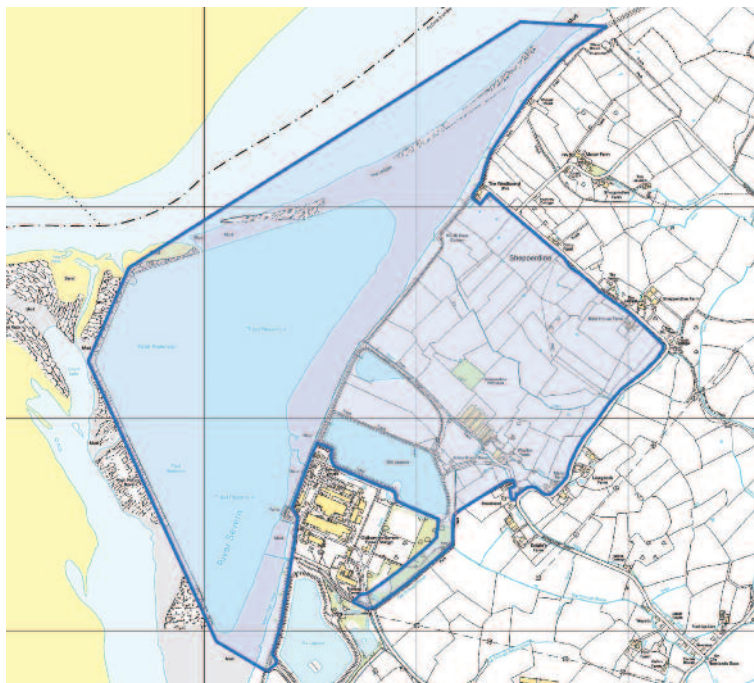
We believe that the site at Oldbury meets all of the criteria set out by the Government as part of its Strategic Siting Assessment (SSA) for new nuclear power station development.

This included consideration of land area, flood risk, coastal erosion, ecology, proximity to civil aircraft movements and military activities, visual and cultural heritage considerations and access to suitable sources of cooling.

Locating new nuclear power stations in the vicinity of existing plants also means that some of the existing infrastructure can be re-used. At Oldbury, the existing power lines can be upgraded to 400kV without the need for major new power lines in the area. Additionally, re-using the existing tidal reservoir would provide a source of water for the cooling system. And, while some local road upgrades are likely to be needed, the site is well served by the major road network.

We also believe that the considerable nuclear experience in this area can play an important role in supporting a future power station at Oldbury. The proximity to some major conurbations will be important in sourcing workers both during construction and operation, with the considerable local and regional benefits that this would bring.

The choice of site will always depend on a balance of many factors. We will work with the community and local stakeholders to ensure that we fully address the challenges, as well as optimising the benefits.



Area within which the power station would be constructed

¹ 1,000 kilowatts (kW) = 1 Megawatt (MW).
1,000 MW = 1 Gigawatt (GW).

² Based on figures provided in the Department of Energy and Climate Change's 2009 publication UK Energy in Brief and on the fact that any new nuclear power station at Oldbury would operate at full output 90 per cent of the time.



The Government's process for developing new nuclear build

The Government approves procedure for new nuclear power generation includes three key elements:

- Evaluating and endorsing new reactor technology
- Determining strategically suitable site locations
- Site-specific planning process.

Public consultation is an integral part of this newly developed approach and it is important that members of the public know when and where to have their say.

Evaluating reactor technology

The Health and Safety Executive (HSE) and the Environment Agency (EA) are working together to assess the next generation of reactor designs for future power stations in the UK.

This will ensure that new nuclear power stations built in the UK meet the highest standards of safety, security, environmental protection and waste management.

Two reactor designs are currently being assessed:

- **UK-EPR designed by Areva and EDF**, and
- **AP1000 designed by Westinghouse**.

Referred to as Generic Design Assessment (GDA), this rigorous evaluation looks in detail at the reactor designs in isolation from any site specific issues.

Confirming the suitability of the new reactor designs in advance of the site-specific planning and licensing processes will streamline the development of new nuclear build and help ensure that the new power stations we need can be generating electricity by 2025.

For more information go to hse.gov.uk/newreactors/index.htm

Strategic Siting Assessment

Earlier this year the Government called for nominations into its Strategic Siting Assessment (SSA) process to identify suitable sites for new nuclear build.

Oldbury, along with 10 other potential sites across the UK, was nominated into this process. The Government has assessed the nominated sites against its

set criteria and has published its draft National Policy Statement (NPS) on future nuclear development in England and Wales. This included a list of sites that it considered to be potentially suitable for new nuclear build by 2025.

People will be able to find out more and have their say at a series of local and

national events being organised by the Government.

The final version of the NPS is expected in Spring/Summer 2010. For more information go to energynpsconsultation.decc.gov.uk

Infrastructure Planning Commission (IPC)

The IPC has been set up to improve the efficiency and transparency of the planning process for major infrastructure projects. Any onshore power station of more than 50MW electrical output will need planning permission from the new IPC. This will therefore include any new nuclear power stations.

Before an application can be submitted, the developer must consult widely with statutory and non-statutory groups, as well as local communities, in order to refine the proposal and resolve as many issues as possible. Planning decisions will need to consider the findings of a comprehensive Environmental Impact

Assessment (EIA), which will include an examination of the local impacts that would result if the project were to go ahead.

More information can be found at: infrastructure.independent.gov.uk

For more on the process, visit the Government's dedicated website at energynpsconsultation.decc.gov.uk

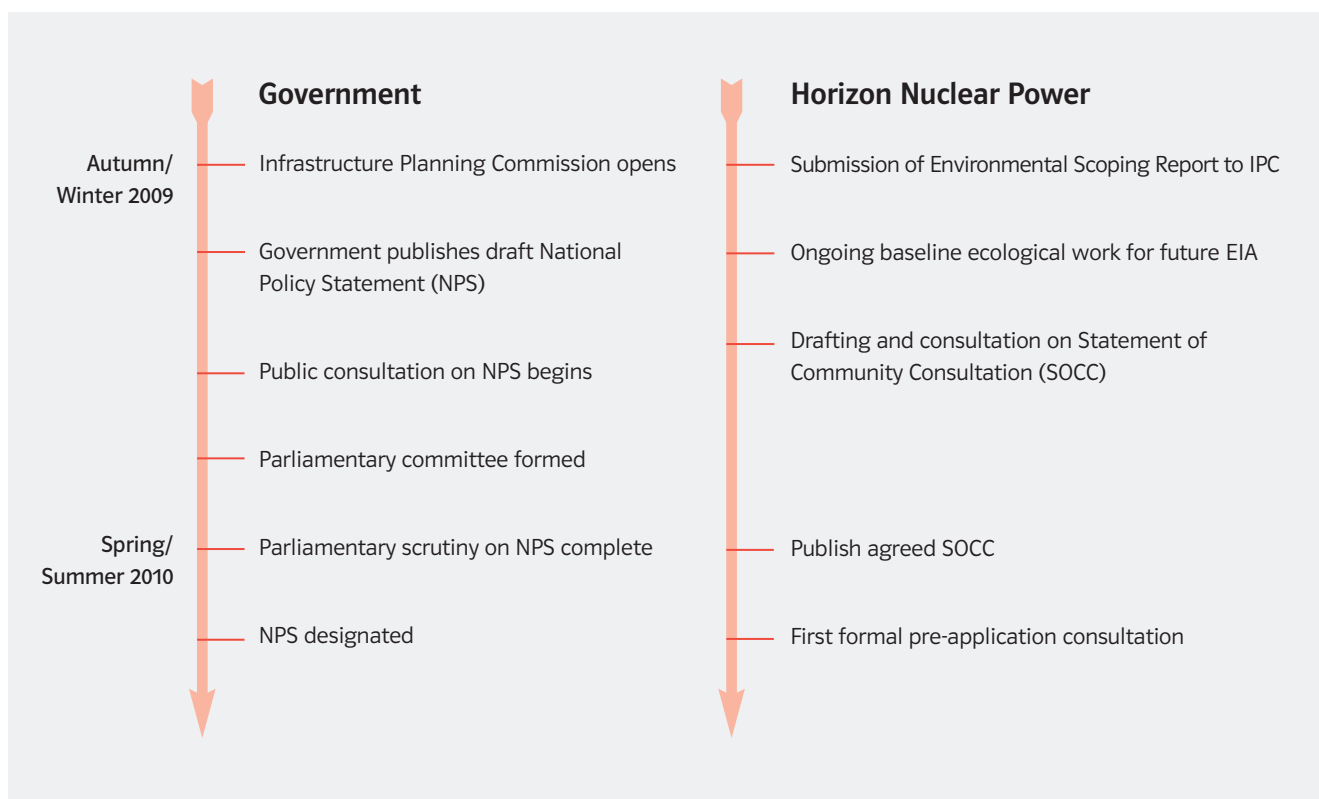
What's happening next?

In addition to the public engagement activities we have already begun, the new Planning Act 2008 includes an additional and more formal requirement for 'consultation'.

The first stage is to agree how the consultation will be carried out.

A key part of this will be a Statement of Community Consultation (SOCC), which will be developed and agreed with the relevant local authorities before it is published.

The consultation and engagement processes will run in parallel with the ongoing site development work and Environmental Impact Assessment (EIA).



Tell us what you think

We are committed to being a good neighbour and developing an open, honest relationship with the local communities near to Oldbury.

It is important that you are able to have your say and we welcome your continuing input into our ongoing engagement and formal consultation processes.

If you have any queries or issues you would like to raise with us, please call our free phone number: **0800 130 3125** or email us at: oldburyenquiries@eon-uk.com

Further information and details of future events can be found on our website: eon-uk.com/oldbury