



# Hinkley Point C Connection Project

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## The energy challenge

The UK faces a major challenge in meeting projected energy needs over the next few decades, while at the same time tackling climate change.

The current UK peak demand for electricity is around 60GW (gigawatts). But over the next decade a number of power stations are planned to close. These include 12GW of coal/oil generation (because of EU emissions legislation) and 7.5GW of nuclear generation (stations coming to the end of their operational lives).

In order to replace power stations scheduled to close in the next 10 years, and meet continued electricity demand over the same period, more than 20GW of new generation will be required by 2020.

The energy industry is now embarking on a multibillion pound investment programme, encompassing small and large scale electricity generation. It will also involve substantial investment in energy networks to replace and upgrade ageing assets, and the construction of new overhead lines and substations to connect and efficiently deliver new energy sources, as well as maintaining the levels of safety and reliability to which everyone has become accustomed.

### Key facts about the project

- National Grid needs to build a 400,000 volt overhead line to connect the proposed new nuclear power station at Hinkley Point.
- Depending upon the final route, the overhead line would be approximately 37 miles (60km) in length.
- This new overhead line is also essential to help connect other proposed power generation facilities in the area and will help the Government meet its renewable targets by 2020.
- There will also be a need to upgrade existing substations and overhead lines.
- National Grid will be consulting with the public on broad route corridor options until the end of this year. There will be further consultation as the project progresses.
- National Grid plans to make an application to the Infrastructure Planning Commission in summer 2011.
- Subject to receiving consent, construction would take place between 2012 and 2017.



## The project

National Grid has received an application from British Energy Generation Limited (now part of EDF Energy) to connect a new 3600MW nuclear power station at Hinkley Point by September 2017. National Grid has a statutory obligation to connect new electricity generators to its high-voltage transmission network.

The new power station would comprise two 1800MW (megawatts) European Pressurised Water Reactors (EPRs) and would be one of the largest single generators connected to the UK electricity transmission system. As a result, we will need to reinforce and upgrade the network in the region to accommodate the extra power and ensure system security. This will include upgrading existing overhead lines and substations.

We will also need to build a 400,000 volt overhead line linking our Bridgwater and Seabank (Avonmouth) substations. This connection has been identified as the most efficient and economic way to accommodate the additional power from Hinkley Point C.



Hinkley Point nuclear site

This route will also be essential to help connect other power generation facilities which are planned in the area and will help the Government meet its renewable energy targets by 2020.

### Our route corridor options for the new overhead line

A route corridor is a broad width of land within which a new overhead line could be routed and therefore it is often much wider than the actual amount of land needed for a new overhead line.

Our map shows the two broad route corridor options for the new overhead line. National Grid has undertaken extensive studies to identify these broad route corridor options.

When identifying a route corridor option, we work to reduce the impact on local communities and the environment. We take into account current legislation and guidance, and the views of statutory consultees such as Natural England, English Heritage and local authorities.

The pylons would be of a standard design and height for this type of line, approximately 46.5 metres tall, although the exact height of each pylon may vary depending on the local landscape.

## Corridor 1

Two potential options have been identified in this corridor. The first would be to decommission the existing 132,000 volt overhead electricity line (owned by the distribution network operator) that runs between Bridgwater and Seabank and adopt the same route for the new 400,000 volt overhead line. This option would also require a new substation at Churchill, North Somerset and a new 4km length of 400,000 volt overhead line to connect it with the new Bridgwater to Seabank overhead line.

The second option is to keep the existing 132,000 volt overhead line and build our proposed 400,000 volt overhead line in parallel.

## Corridor 2

Corridor two is slightly more complicated as it contains different options within it. The corridor follows a route which runs to the east of the existing 132,000 volt overhead line from Bridgwater before joining up with it at the Mendips. We have then identified two options for the corridor from this point, one that runs parallel and to the east of the M5 Motorway and a second which follows the route of the existing 132,000 volt overhead line. This second option then has a further two possible routes identified by the junction which leads to Churchill substation – one to the east of the existing line and one to the west. All three of these possible corridors converge again north east of Weston-super-Mare and carry on to the east of Nailsea before rejoining the existing 132,000 volt overhead line near Portishead and on to Seabank.

## Public consultation

### First stage

This leaflet forms a small part of our first stage of public consultation, which runs from Monday 12 October 2009 to Monday 4 January 2010.

Whilst the proposals are still at an early stage of their development we are seeking the views of communities and interested parties in the area, initially on the route corridor options.

Early in 2010 we will show how the views of the public have been taken into account in deciding on our preferred corridor. We will then develop a route alignment (actual route the overhead line could take within the preferred corridor) for the proposed overhead line.

## Second stage

This will run from February 2010 to March 2011. We will be seeking views on our route alignment from the local community and interested parties, such as those who work in and use the area.

We will also be consulting on the preliminary environmental information as part of our Environmental Impact Assessment on this project.

A final decision on our preferred route alignment will only be taken after feedback obtained at this stage has been taken into account.

## Your comments and feedback

**There are a number of ways in which you can access information or express your views on the project and route corridor options:**

- **At your local council offices**
- **At your local library**
- **At public exhibitions**

We are holding a series of exhibitions where you will be able to view our proposals, talk to project team representatives and record your comments.

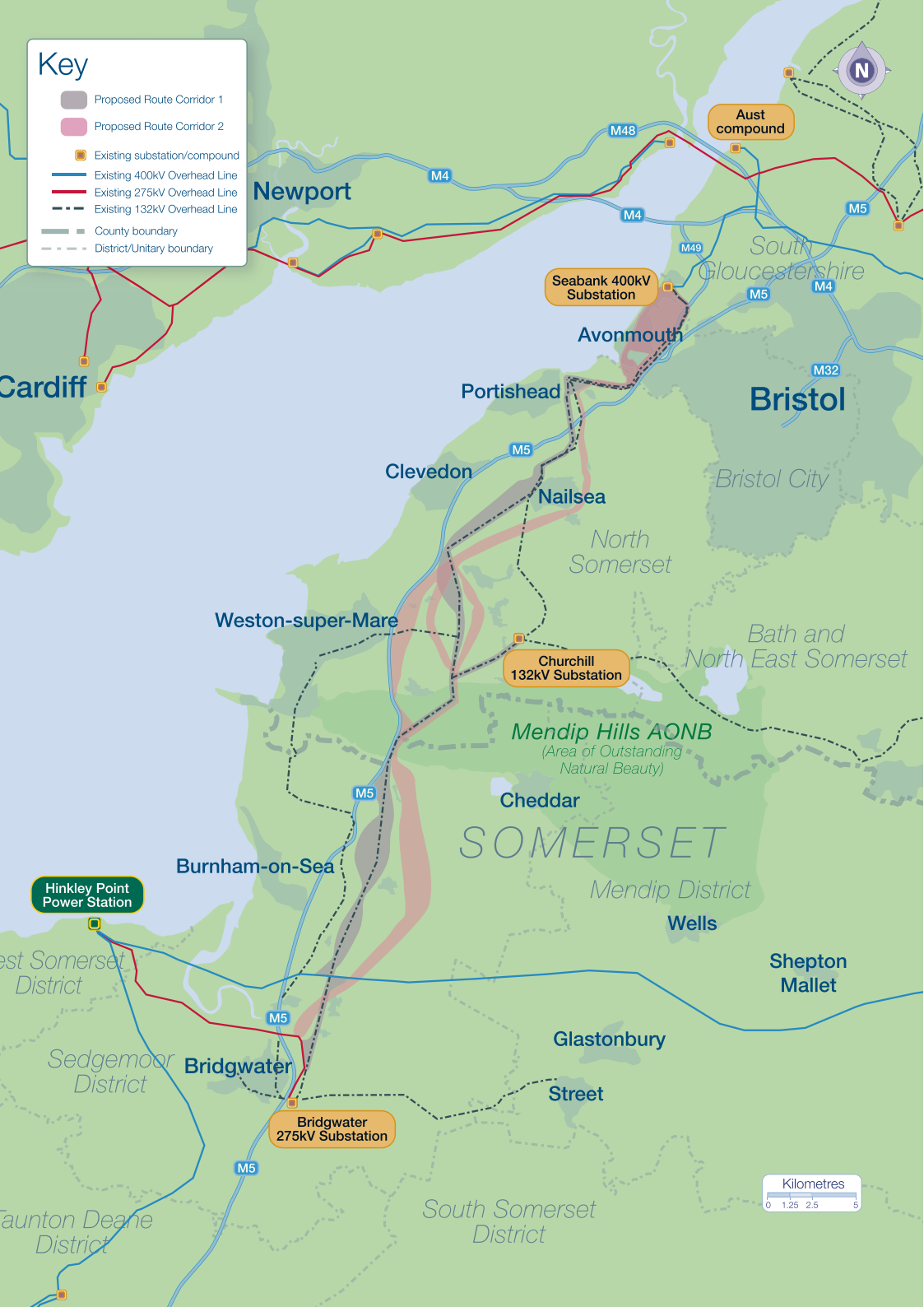
- **Via our website**  
[www.nationalgrid.com/hinkleyconnection](http://www.nationalgrid.com/hinkleyconnection)
- **Via our email address**  
[hinkleyconnection@uk.ngrid.com](mailto:hinkleyconnection@uk.ngrid.com)
- **Via our freepost address**  
Freepost RRKX/EBGK/XXHT  
Hinkley C Connection Project  
Consultation Response  
PO Box 5689  
London W1A 4FG
- **Via our freephone number**  
0800 377 7347

(lines open 7.30am – 7.30pm Monday to Friday and 7.30am – 1pm Saturday).



# Key

- Proposed Route Corridor 1
- Proposed Route Corridor 2
- Existing substation/compound
- Existing 400kV Overhead Line
- Existing 275kV Overhead Line
- Existing 132kV Overhead Line
- County boundary
- District/Unitary boundary



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## About us

National Grid is an international electricity and gas company and one of the largest investor-owned energy companies in the world. We play a vital role in delivering gas and electricity to millions of people across Great Britain and northeastern US in an efficient, reliable and safe manner. We believe the power of action can play a major role in safeguarding our global environment for future generations and tackling the effects of climate change, providing all our customers with the highest standards of service through network investment and through our talented, diverse workforce.

National Grid owns the high-voltage electricity transmission network in England and Wales and operates the system across Great Britain. It also owns and operates the high pressure gas transmission system in Britain and its distribution business delivers gas to 11 million homes and businesses.

National Grid manages the National Gas Emergency Service freephone line 0800 111 999\*.

\*All calls are recorded and may be monitored.

Information can be supplied on request in alternative formats – for example Braille, audio, large print, community languages – by calling 0800 377 7347.

National Grid Community Relations Team  
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[hinkleyconnection@uk.ngrid.com](mailto:hinkleyconnection@uk.ngrid.com)

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