



Bramford to Twinstead 400kV overhead line 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 and 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 multi-billion 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 a number of major new generators to the electricity transmission system in East Anglia.
- Depending on the final route the overhead line would be between 26.5kms and 30kms long.
- This new overhead line will also connect potential off-shore wind generation which will help meet the Government's carbon emission reduction 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 28 February 2010. 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 2016.



The project

National Grid has been asked to connect a number of new generators to the electricity transmission system in East Anglia. National Grid has a statutory obligation to connect new electricity generators to its high-voltage transmission network.

As a result we will need to reinforce and upgrade the network in the area to accommodate the extra power and ensure system security. This will include replacing wires on existing overhead lines, building new substations and upgrading others.

As part of this work we will also need to build a new 400,000 volt overhead line between Bramford, near Ipswich, and Twinstead, near Sudbury. The new overhead line has been identified as the most efficient and economic way to accommodate the additional power from the new generators.

This new overhead line will also connect potential off-shore wind generation which will help meet the Government's carbon emission reduction targets by 2020.

Our route corridor options for the new overhead line

A route corridor is a stretch 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 four 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 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.

“...we are seeking the views of communities and interested parties in the area, initially on the route corridor options.”



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

Corridor one involves building a new 400,000 volt overhead line from Bramford to Twinstead, running south west from Bramford, which would largely run parallel to an existing 400,000 volt National Grid overhead line and a 132,000 volt overhead line, owned by the local Distribution Network Operator, EDF Energy Networks.

Corridor 2

Corridor two involves building a new 400,000 volt overhead line in place of the existing 132,000 volt overhead power line owned by EDF Energy Networks, which largely runs parallel with National Grid's existing 400,000 volt overhead line to Twinstead.

Work to date indicates that if route corridor 2 was chosen as the preferred option, a new electricity substation would be needed in the vicinity of the overhead line, between a point west of Twinstead and to the northwest of Castle Hedingham.

Residents living in this area will be consulted about the route corridor options. If route option 2 is chosen, residents will be consulted about potential substation locations.

Corridor 3

Corridor three involves building a new 400,000 volt overhead line north of Hadleigh and Boxford, heading south west towards Twinstead.

Corridor 4

Corridor four involves building a new 400,000 volt overhead line in a north western arc, heading north of Elmsett and Lindsey Tye and Edwardstone before heading south towards Twinstead.

Public consultation

First stage

This leaflet forms a small part of our first stage of public consultation, which runs from Tuesday 27 October 2009 to 28 February 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.

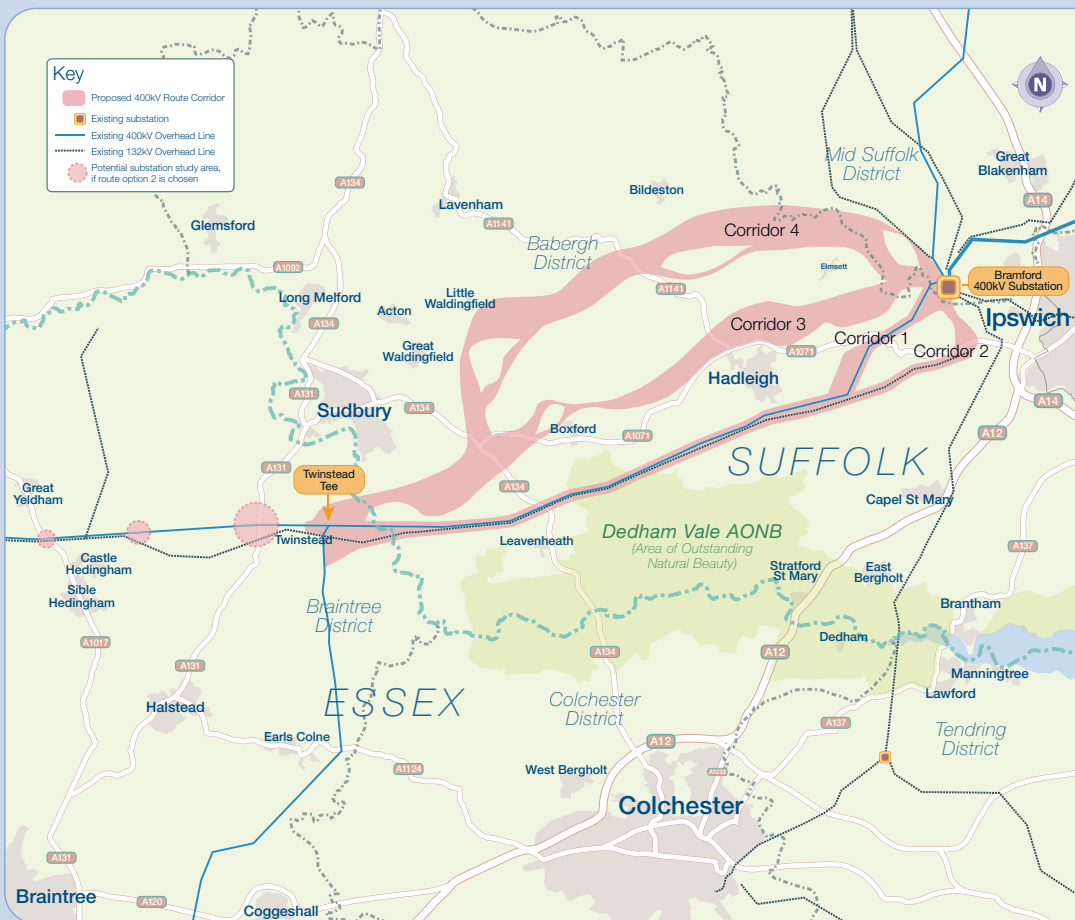
In spring 2010 we will show how the views of the public have been taken into account in deciding on our preferred corridor. We will then develop route alignment options (actual routes the overhead line could take within the preferred corridor) for the proposed overhead line.

Second stage

This will run from spring 2010 to 31 March 2011. We will be seeking views on our overhead line alignment options 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 overhead line 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. For further details visit our website or contact us by post, email or phone.
- **Via our website**
www.nationalgrid.com/bramford-twinstead
- **Via our email address**
bramford-twinstead@uk.ngrid.com
- **Via our freepost address**
Freepost RPKX/EBGK/XXHT
Bramford to Twinstead 400kV overhead line project
Consultation Response
PO Box 5689
London W1A 4FG
- **Via our freephone number**
0800 377 7340
(lines open 7.30am – 7.30pm Monday to Friday
and 7.30am – 1pm Saturday).

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 7340.

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