Welcome to our public consultation on the Bramford to Twinstead reinforcement

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National Grid would like further feedback on our plans to reinforce the electricity transmission network between Bramford substation in Suffolk and Twinstead Tee in Essex.

After listening to feedback received during our statutory consultation in spring 2022, we have made some further changes to our proposals. The biggest changes to the plans are in the western part of the Stour Valley, in the parishes of Lamarsh, Alphamstone, Twinstead, Pebmarsh and Little Maplestead. We have also made several smaller changes to our proposals across the wider route of the proposed reinforcement.

We want to hear what you think of the changes we have made before we submit our application for development consent in early 2023.

The Bramford to Twinstead Reinforcement is a 400 kV reinforcement across 29 km which includes:





Around 11 km of underground cables in the Dedham Vale AONB and parts of the Stour Valley



Four cable sealing end compounds to transition between overhead line and underground cable sections



A new grid supply point substation at Butler's Wood, to connect the local distribution network into the National Grid



Removal of around 2 km of existing 400 kV pylons south of Twinstead Tee



Removal of around 25 km of existing 132 kV pylons between Burstall Bridge and Twinstead Tee

About National Grid

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National Grid is working to build a cleaner, fairer and more affordable energy system that serves everyone, powering the future of our homes, transport and industry.

National Grid sits at the heart of Britain's energy system, connecting millions of people and businesses to the energy they use every day. We bring energy to life – in the heat, light and power we bring to our customer's homes and businesses; in the way that we support our communities and help them to grow; and in the way we show up in the world. It is our vision to be at the heart of a clean, fair and affordable energy future.

Within the National Grid Group there are three distinctly separate legal entities, each with their individual responsibilities and roles. The Bramford to Twinstead Reinforcement is being developed by National Grid Electricity Transmission (NGET).



National Grid Electricity Transmission



Owns and manages the high voltage electricity transmission system in England and Wales



Ensures that Great Britain has the essential energy it needs by making sure supply meets demand every second of every day

Operates a mix of energy assets and businesses to help accelerate the development of our clean energy future (eg, undersea electricity, interconnectors, with other countries and European transmission partners)

National Grid ESO

National Grid Ventures

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Moving to Net Zero



The world we live in is changing, and the UK is at a turning point as we embrace the enormous opportunities a cleaner, greener future brings. The Government has made it clear that a key part of recovery from the coronavirus pandemic is building back cleaner and greener.

The UK has set a world-leading target to tackle climate change, which is to achieve net zero greenhouse gas emissions by 2050. Put simply, this means that we will remove the same amount of greenhouse gas from the atmosphere as we produce.



As a country, we are already making progress, **but more needs to be done**. A healthier, greener future for Britain requires significant upgrades to our energy infrastructure, including the Bramford to Twinstead Reinforcement.

Why we need to build the Bramford to Twinstead Tee reinforcement

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The high voltage electricity transmission network in East Anglia was largely developed in the 1960s. It was built to supply regional demand, and until now has been able to meet this. However, by the end of the decade the amount of renewable and low carbon energy connecting to the network is set to dramatically increase.



- There are currently three electricity transmission lines carrying power from the north and east into Bramford Substation. However, there is currently only one electricity transmission line transporting this south west from Bramford to Twinstead Tee and to the wider network. This is a bottleneck on the system which significantly constrains the amount of electricity that can be carried westward on the network from Bramford.
- 2 The current level of electricity generated in East Anglia is around 4.1 GW. Sizewell B provides nearly a third of the overall generation total, whilst a substantial contribution also comes from offshore wind farms.
- By 2030 it is expected that almost 24.5 GW of generation sources will be connected to the transmission network in East Anglia. This is largely driven by planned new nuclear, offshore wind and interconnection, with an expectation that this area will continue to see growth to support the UK's Net Zero transition.

The existing network needs reinforcing to allow new cleaner, greener sources of electricity generation to reach our homes and businesses. Today, this part of the network can export around 3.5 GW of electricity, but with new contracted generation it needs to be able to carry up to around 15 GW of electricity out of

the area.

We have started making improvements to the existing network by:

- installing power control devices at Burwell, Pelham, Rye House and Waltham Cross
- increasing the voltage of the electricity transmission line running south of Waltham Cross
- re-wiring overhead lines from Bramford to Braintree to Rayleigh to Tilbury, Twinstead and Pelham and between Norwich and Bramford.

These improvements will only increase capacity to around 6 GW.

We also need to build a new subsea link between East Anglia and Kent, and to reinforce the network between Norwich and Tilbury. We will hold separate consultations on these. Each additional reinforcement will include a cumulative effects assessment to consider how it will interact with other proposed developments in the area.

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Map of the proposed reinforcement



This map provides an overview of our proposals

Changes since our spring 2022 consultation

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After reviewing feedback, undertaking additional studies, and holding further landowner discussions, we are proposing to make the following changes in the western part of the Stour Valley:

- moving the route of underground cables further away from Alphamstone
- constructing a proportion of the underground cables using trenchless construction methods
- building a 3.5 km temporary haul road from Sudbury Road (A131) to the Stour Valley west cable sealing end compound, to facilitate construction of the reinforcement.

As our plans have become more refined, we have also made a number of smaller changes to wider reinforcement presented at statutory consultation, these are detailed on banner 9.

Changes to the proposed route of undergrounding in the Stour Valley (Section G)

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What's changed and why?

We are now proposing to route underground cables from Moat Lane to the north of Henny Back Road, south of Ansell's Grove, before passing beneath the existing 400 kV overhead line and connecting to the Stour Valley West cable sealing end compound.

We will also install a section of these underground cables beneath the wooded valley to the south of Ansell's Grove using trenchless construction methods. This means that we would not need to dig trenches in order to install the cables. This will protect the vegetation, watercourse and landscape in this area.

This is because feedback expressed concerns about the proximity of construction activities to Alphamstone, along with concerns around the impact on sensitive parts of the environment and footpaths.





Please note that the "After" plan has two parallel lines to depict the cable route - this shows the two cable circuits and does not represent an increase in the number of cables (up to 21) required within the cable swathe

What hasn't changed?

We remain committed to undergrounding in the Stour Valley.

Locations of the cable sealing end compounds has not changed, and we will still be removing the existing 132 kV overhead line and a small section of existing 400 kV overhead line south of Twinstead Tee.



Illustration of trenchless crossing

Stour Valley – Temporary construction haul road

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The after plan has two parallel lines to depict the cable route - this shows the two cable circuits and does not represent an increase in the number of cables (up to 21) required within the cable swathe

What's changed and why?

We are proposing to build a 3.5 km temporary construction haul road between Sudbury Road (A131) and the Stour Valley West cable sealing end compound.

The temporary construction haul road would leave the A131 northeast of Little Maplestead and bring construction traffic east to bypass a network of narrow roads which may require some modifications to facilitate access by some of the larger construction vehicles.

The temporary haul road will mainly cross agricultural land but will also intersect with three roads (Lorkin's Lane, Cripple Corner and Oak Road) and an access track where junctions will need to be created.

The haul road will be removed once construction is complete and the land will be reinstated to its original condition.

What hasn't changed?

Although we are now proposing to build a temporary haul road, smaller construction traffic may still use local roads.

Additional Changes

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What's changed and why?

As a result of your feedback, further surveys and technical assessments, we have also made several smaller changes to our proposals. The changes include:

- refining the draft Order Limits (the land we would need to build the reinforcement)
- small changes to the proposed route of underground cables and overhead lines
- adding, amending or removing construction access tracks, compounds and working areas needed to build the reinforcement
- inclusion of bellmouths and highway visibility splays to provide access to working areas
- identifying locations where offsite highways works or restrictions may be required to facilitate construction
- identifying locations and land requirements for the diversion or connections to third-party assets, utilities and land drainage
- refining the environmental areas required for mitigation, compensation and enhancement

Revisions to the draft Order Limits



As our proposals for the Bramford to Twinstead Reinforcement become more refined, we are able to better define which land is required to build the reinforcement. This also means that surplus land can be removed from the draft Order Limits.

Environmental effects

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As we have made changes to the reinforcement in the western part of the Stour Valley, we have included additional Preliminary Environmental Information.

More detail on this can be found in Appendix A of our Consultation Summary Document.

Construction

In summary the additional Preliminary Environmental Information concludes that overall construction effects would be no greater than those originally identified. Although there are some different receptors affected, and others that are no longer affected (particularly around Alphamstone village).

Biodiversity

Regarding biodiversity, construction effects are broadly similar to those presented at statutory consultation, although the new cable route would avoid two Local Wildlife Sites and the section of trenchless construction would avoid direct effects on Alphamstone Meadows Local Wildlife Site, watercourses and other woodland and scrub habitats.

Archaeology

Installing a section of underground cables using trenchless construction methods will help reduce the risk to archaeology in the section of the trenchless crossing.

Visual impact

The increased distance between the draft Order Limits and Alphamstone village would reduce disturbance to residents and potential effects on views and setting of historic assets. There would be some effect to different receptors to the north of the proposed new cable alignment during construction.

The proposed new construction haul road extends the draft Order Limits westwards, which will result in some disturbance (visual receptors and listed buildings) along its length. However, the haul road would have the benefit of reducing the number of larger construction vehicles using local roads.

How to respond and next steps

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We want to hear the views of local people. Knowing what matters to you, matters to us, so please get in touch and provide your feedback.

The deadline for consultation responses is 23:59 Friday 7 October 2022.

How do I find out more about the proposals?

- visit our project website <u>nationalgrid.com/bramford-twinstead</u>
- read our consultation documents at our public exhibition, on our website, at deposit points or request paper copies by calling or emailing us
- book an appointment at our 'ask the experts' session online, or by calling or emailing us
- speak to the team at the public exhibition
- book a telephone or video appointment with the team by visiting our website, calling or emailing us
- attend our online webinar

To respond to the consultation:

Complete a feedback form and send it to us by 23:59 on Friday 7 October 2022. You can do so in the following ways:

- online at <u>nationalgrid.com/bramford-twinstead</u>
- by collecting a feedback form and freepost envelope at our public exhibition or one of our deposit points
- post your written responses to Freepost B TO T REINFORCEMENT
- email your comments to <u>contact@bramford-twinstead.nationalgrid.com</u>
- if you cannot submit feedback via any of the above methods (for reasons such as a disability) then we may also be able to take your feedback over the phone

When giving your feedback you do not need to repeat comments that you submitted at a previous consultation, unless you wish to do so, as all feedback received during previous rounds of consultation has and will continue to be considered.

Next Steps

We will review all responses to our targeted consultation as we finalise the designs for the Bramford to Twinstead Reinforcement and prepare our application for development consent.

Email us: contact@bramford-twinstead.nationalgrid.com

Call us: 0808 196 1515 (9am-5pm, Monday to Friday)

Visit our project website: nationalgrid.com/bramford-twinstead