

# 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 customers' 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.

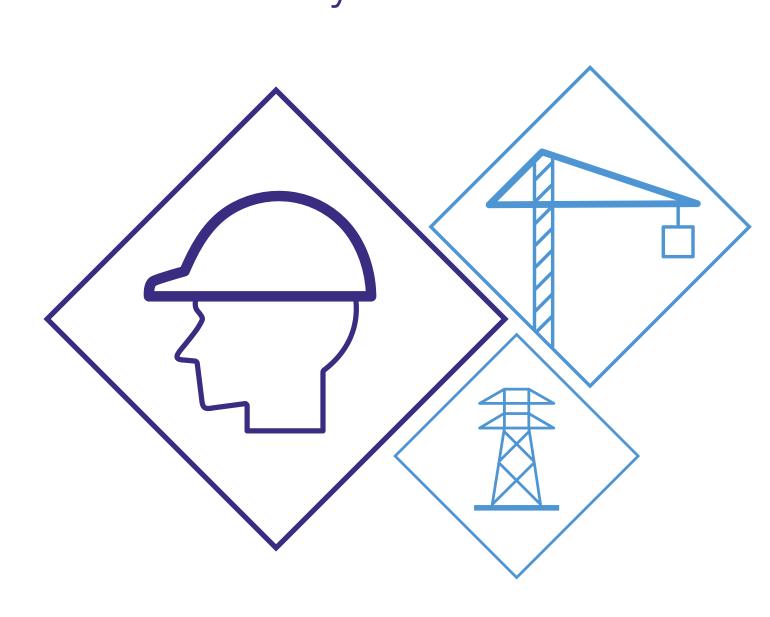
Within the National Grid Group there are three distinctly separate legal entities, each with their individual responsibilities and roles. It is National Grid Electricity Transmission that is developing plans for East Anglia GREEN.

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Group PLC

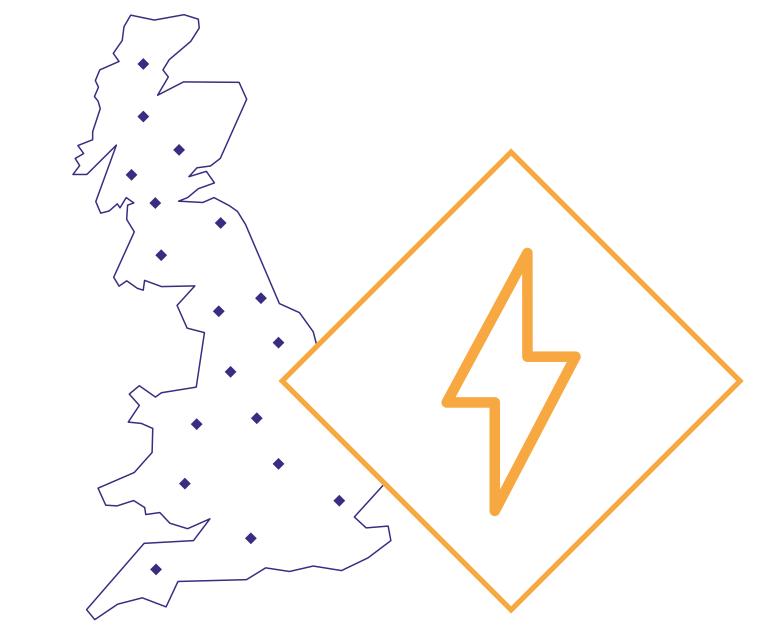
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Electricity Transmission



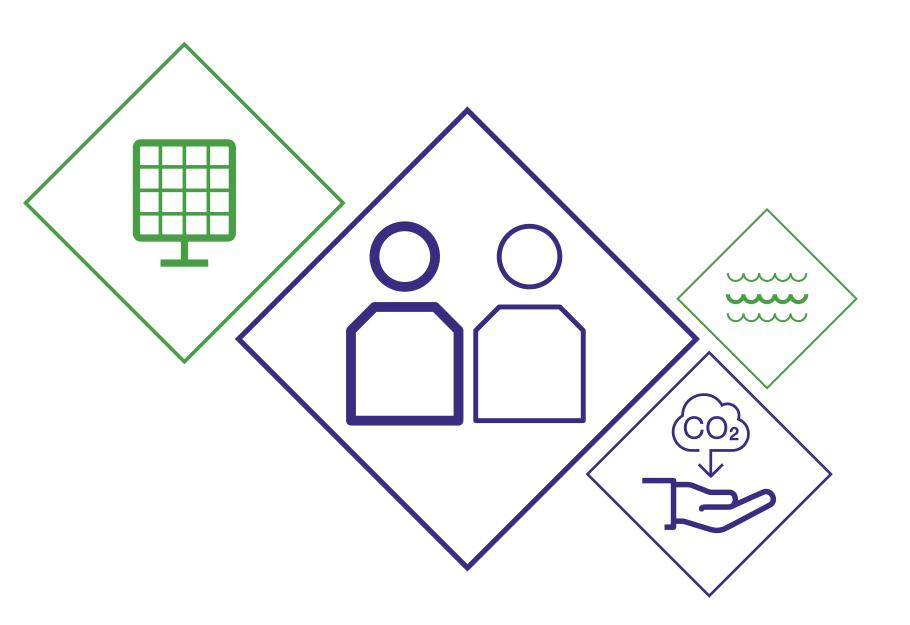
Owns and manages the high voltage electricity transmission system in England and Wales.

### nationalgridESO

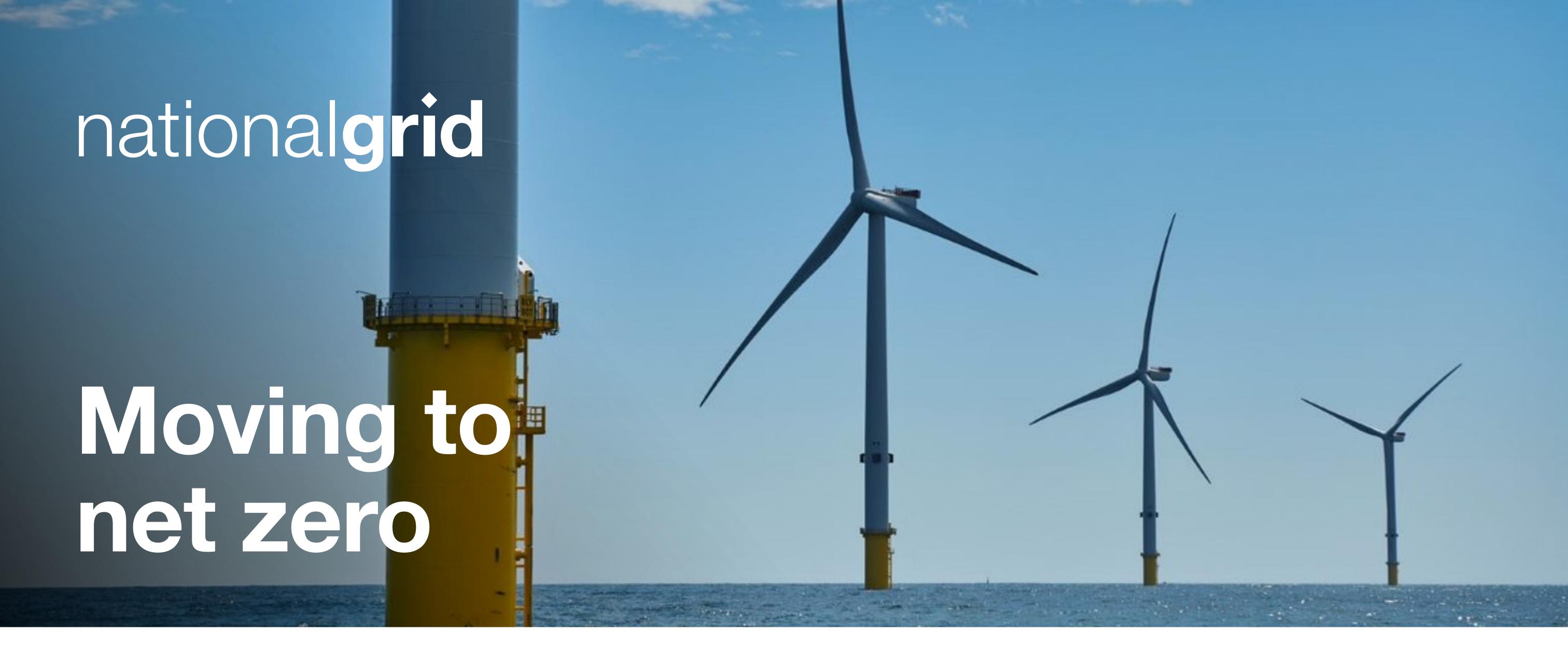


Ensures that Great Britain has the essential energy it needs by making sure supply meets demand every second of every day.

### national**grid** ventures



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

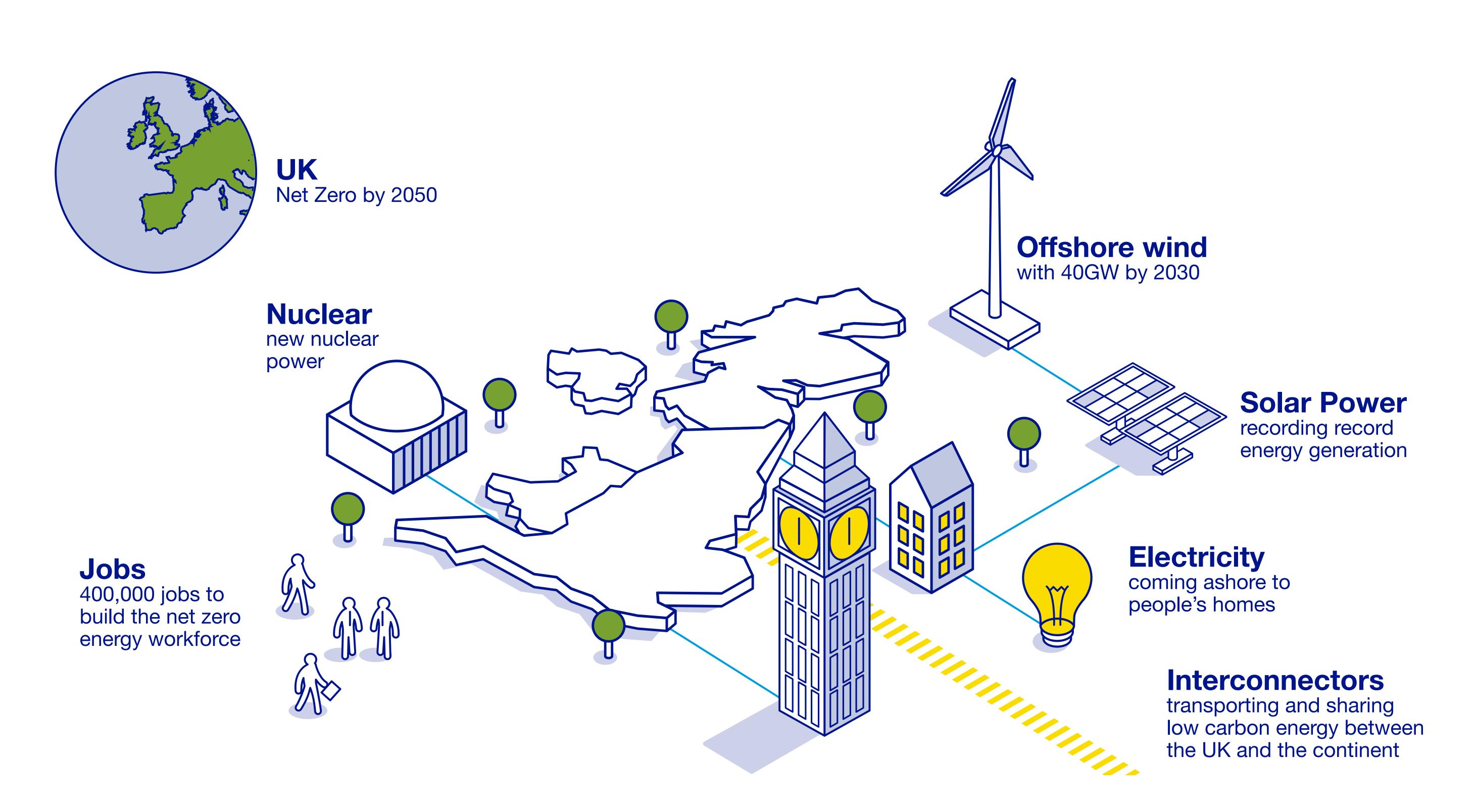


The world we live in is changing, and the UK is at a turning point as we embrace the enormous opportunities a cleaner, greener future brings. The Government has made it clear that a key part of recovery from the Coronavirus pandemic is building back cleaner and greener.

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 to deliver clean green energy from where it is produced to where it is needed.

The East Anglia Green Energy Enablement project (East Anglia GREEN) will support the UK's net zero target through the connection in East Anglia of new low carbon energy generation, and by reinforcing the local transmission network.

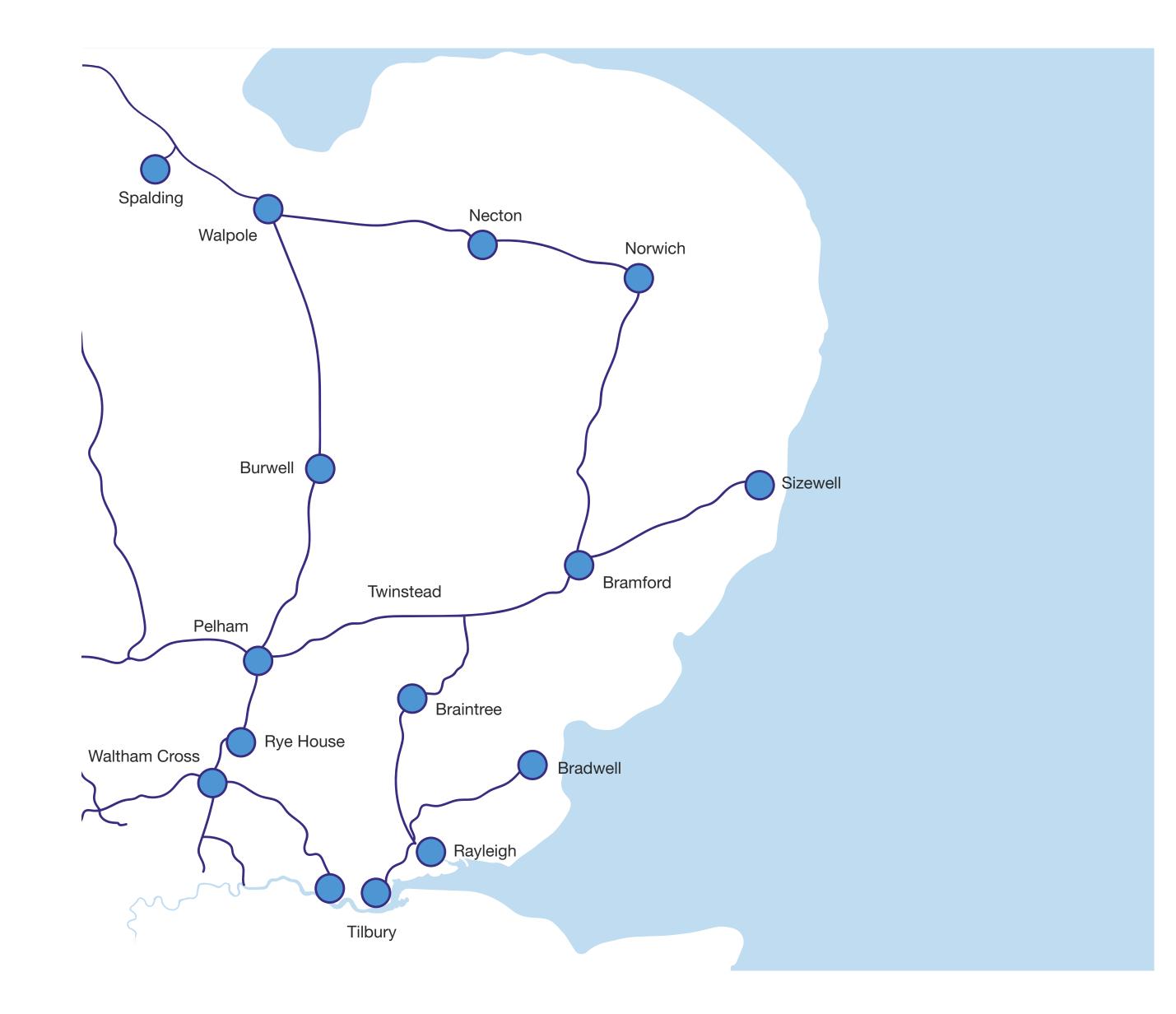


The high voltage electricity transmission network in East Anglia was largely developed in the 1960s. It was built to supply regional demand, and until now has been able to meet this. However, by the end of the decade the amount of renewable and low carbon energy connecting to the network is set to dramatically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

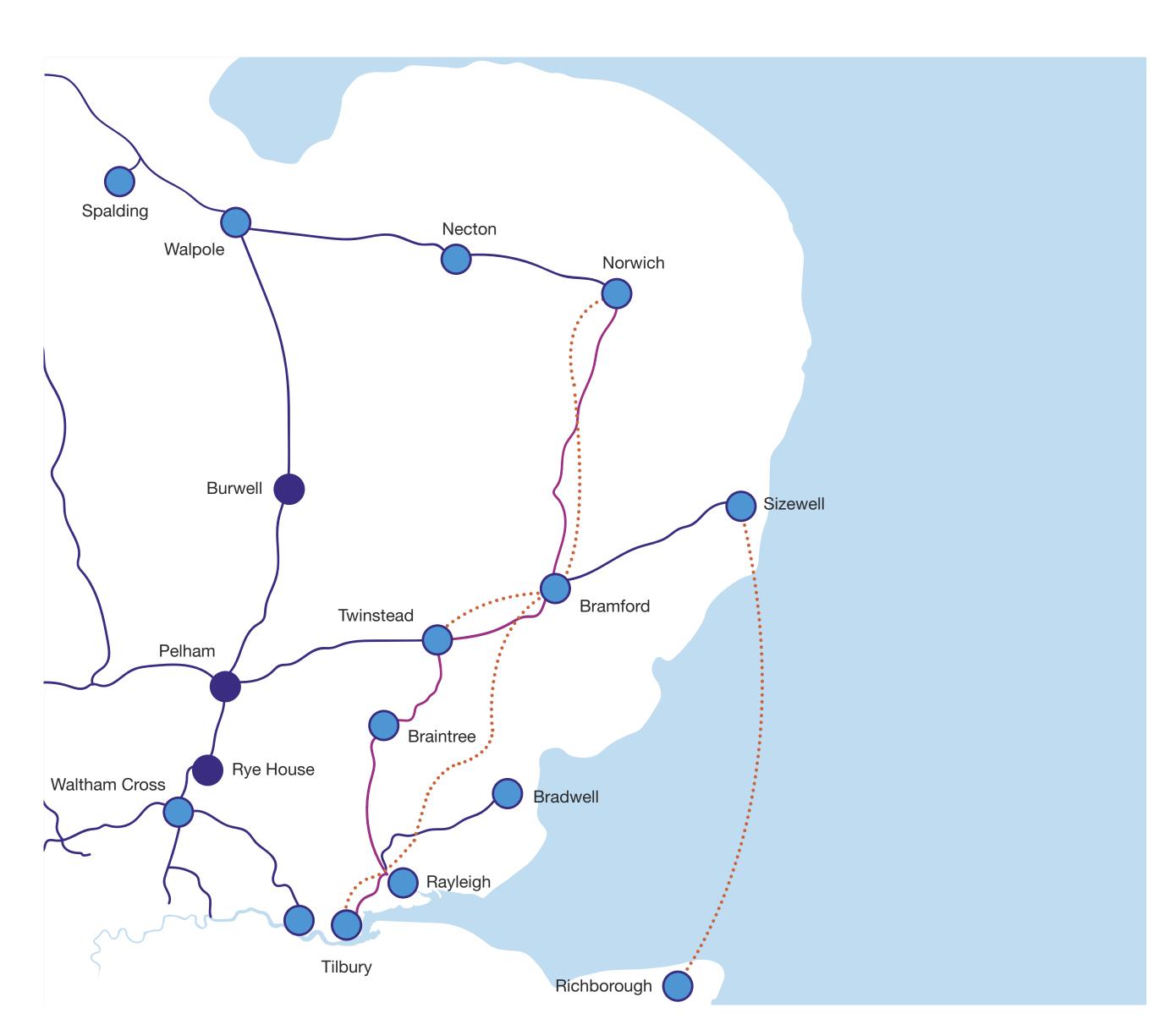
The current level of electricity generated in East Anglia is around 4.1 GW. Sizewell B provides nearly a third of the overall generation total, whilst a substantial contribution also comes from offshore wind farms.

Whilst the network in East Anglia can accommodate the level of generation and demand that there is today, this situation will change over the next decade.

### Existing network, with existing generation



### Existing network, with planned future generation



	Existing National Grid overhead line
	Existing National Grid substation
	Power control devices installed
	Re-wiring existing overhead lines
• • • • • • • • • • • •	New network reinforcements



Connections for new offshore wind, nuclear power generation and interconnectors are expected into East Anglia by 2030. It is anticipated that these will provide almost 24.5 GW of generation. These are being constructed or expected to connect into substations at Necton, Norwich Main, Bramford, Friston and Sizewell. Additionally, agreements are in place with two offshore wind farm projects on the basis of their connection into the new East Anglia Connection substation (EAC).

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.

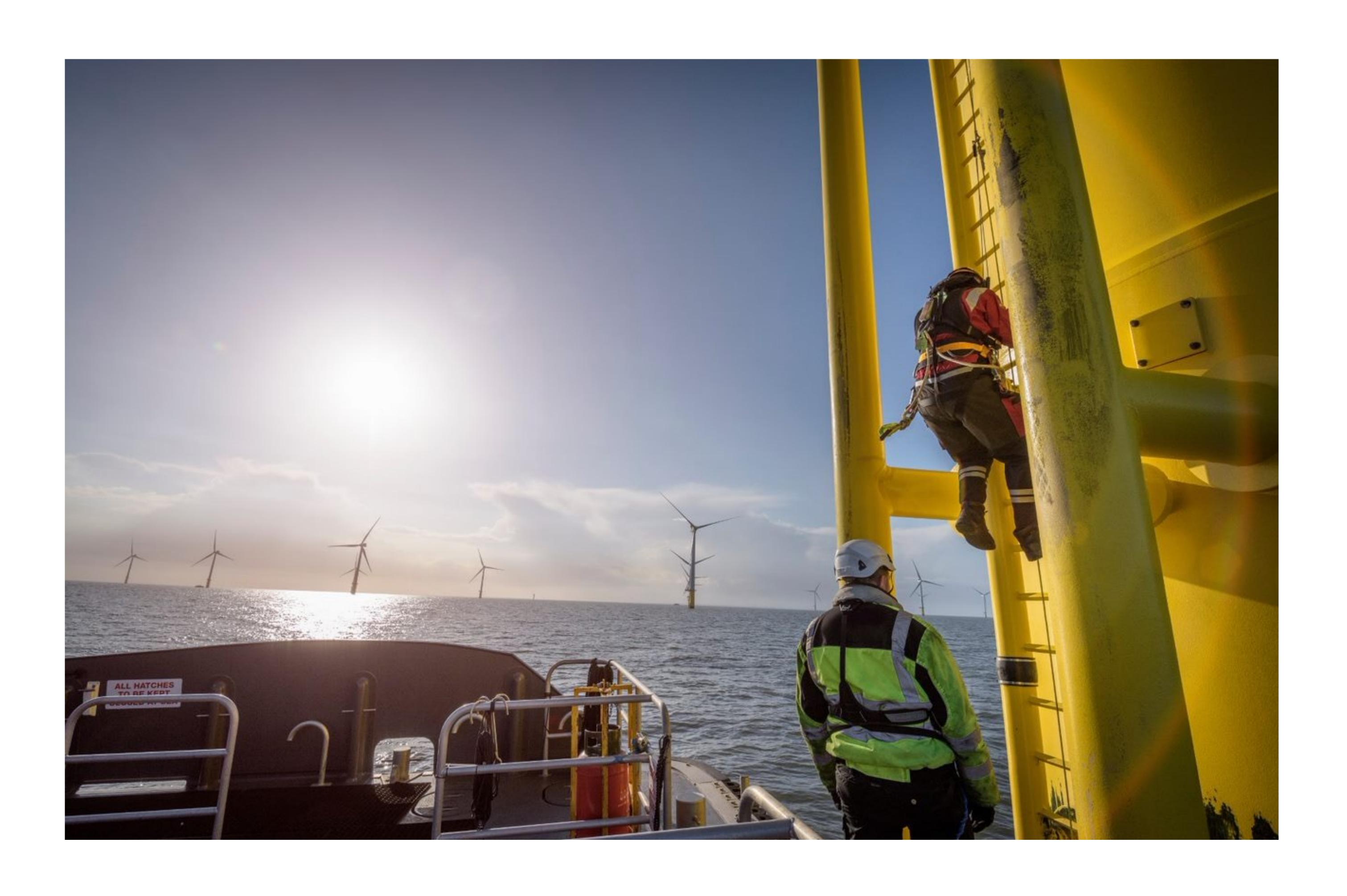
We have started making improvements by:

- installing power control devices at Burwell, Pelham, Rye House and Waltham Cross substations
- 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 reinforce the network between Bramford and Twinstead, and build a new subsea link between East Anglia and Kent, known as Sea Link.

We have held separate consultations on the Bramford to Twinstead reinforcement, and will be holding future separate consultations on Sea Link. Each additional reinforcement includes/will include a cumulative effects assessment to consider how it will interact with other proposed developments in the area.



## Our proposals include building a new 400,000 volt (400 kV) electricity transmission line over a distance of approximately 180 km and a new 400 kV connection substation.

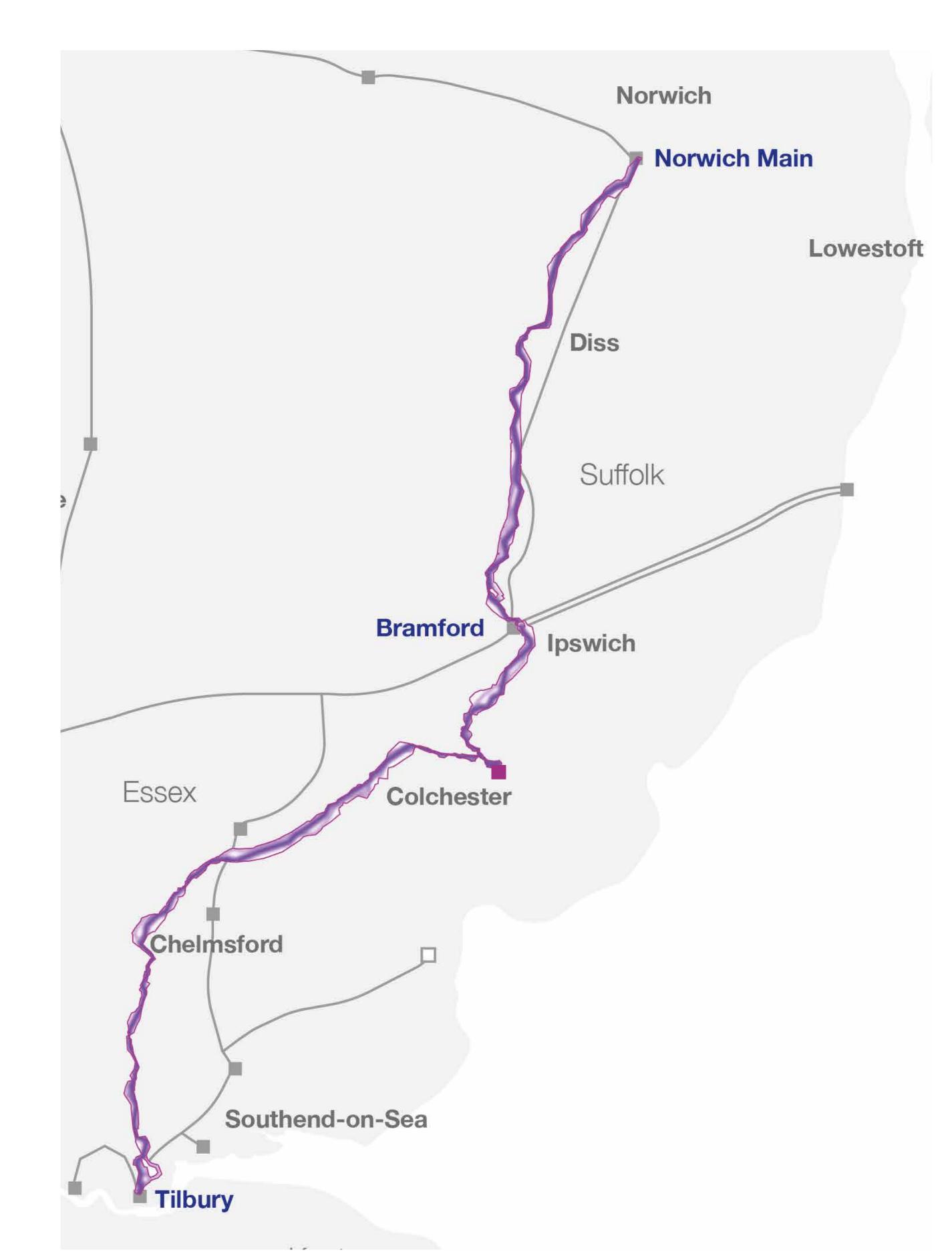
The reinforcement would run south from Norwich to Bramford, and on to Tilbury, and would include:

- overhead lines and pylons for most of the route
- underground cables where we pass through the Dedham Vale Area of Outstanding Natural Beauty (AONB)
- a new substation on the Tendring Peninsula to connect new offshore wind farms
- works at existing substations to connect the new reinforcement.

For most of the route, we are proposing to build a new overhead line supported by steel lattice pylons. These are the most common pylons that you see in the landscape and would be approximately 45-50 m in height. From our engineering and environmental assessments, we have identified a preferred corridor for the new reinforcement and a preferred site for the substation.

We have also developed a graduated swathe' to highlight where we think it is most likely that new infrastructure could be sited within the preferred corridor.

The darker areas of the graduated swathe show our preferred location for the infrastructure based on our studies to date; however the final locations will depend on any potential modifications, following feedback from our consultation.



Key	
	400 kV substation
	132 kV substation
	Existing overhead line
	Proposed connection substation site
	Preferred corridor and graduated swathe



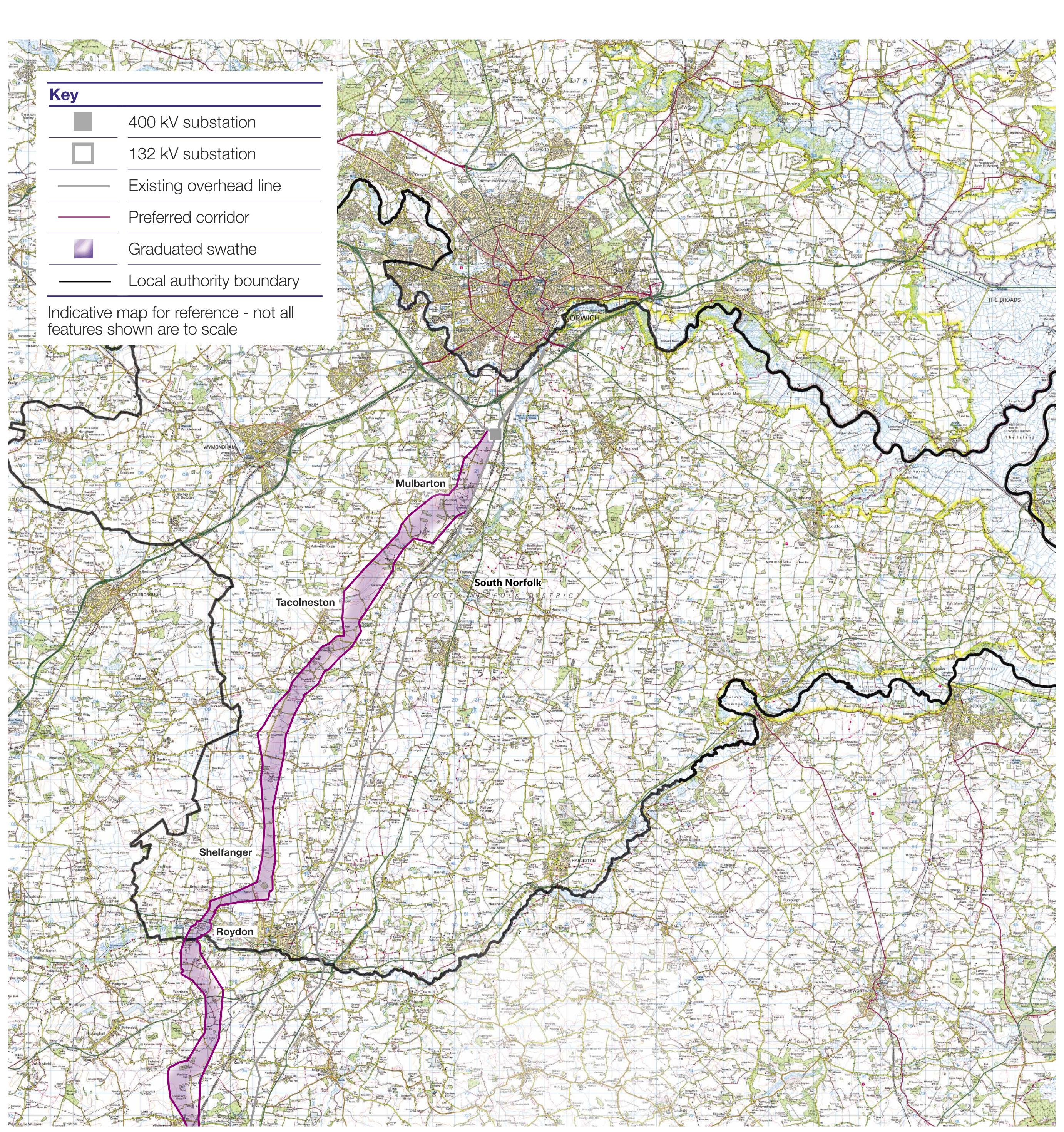
## The proposed reinforcement starts with a connection into the Norwich Main substation in Norfolk.

Two new wind farms (Equinor and Hornsea) will be connecting into Norwich Main in the next few years and we will need to extend the substation to enable this. The extension will free up space for the connection of East Anglia GREEN.

We expect to submit plans for the extension for approval through the Town and Country Planning process. We will publish more information when the plans have been developed.

Out of Norwich Main the corridor heads south, running past the villages of Mulbarton, Tacolneston and Shelfanger before routeing to the west of Roydon.

The map identifies a swathe within the broad preferred corridor running broadly south where the new overhead line could be routed. We expect the reinforcement in this section to consist of new overhead line supported by steel lattice pylons.



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# Our proposals in Mid Suffolk (and Babergh – north of substation)

(including Bramford substation)

## From the county boundary between South Norfolk and Mid Suffolk, the preferred corridor runs south, passing Mellis and Gislingham and crossing the railway.

The route corridor continues south past Stowupland and Needham Market where it crosses back over the railway before it turns eastwards to connect into Bramford substation.

The graduated swathe splits around Offton and we are considering which route would be most appropriate here.

We expect the reinforcement in this section to be made up of new overhead line supported by steel lattice pylons.

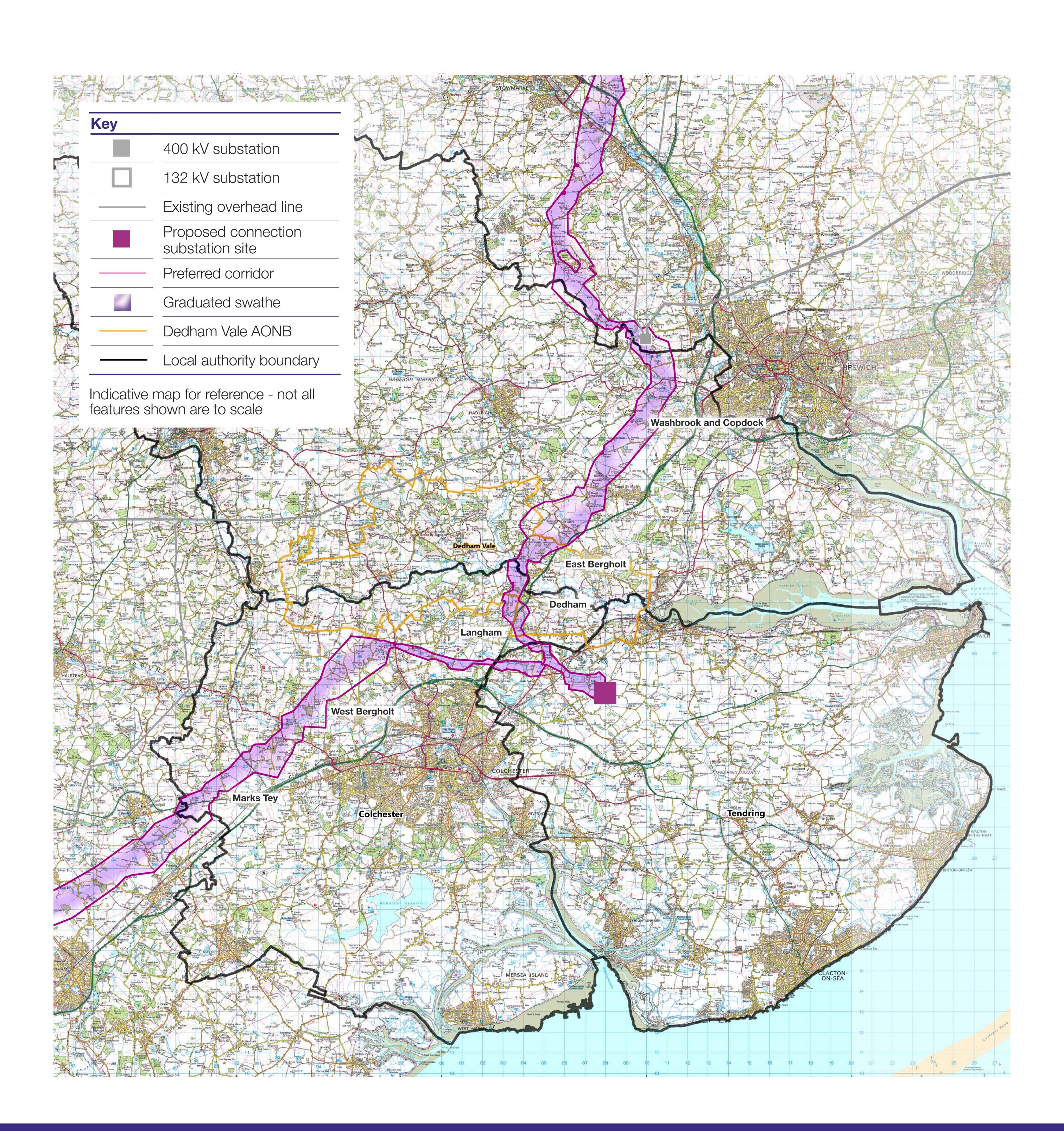
We would need to carry out some work at the Bramford substation to connect the new line into it. We expect the work to be contained within the existing boundary of the substation.



This section includes the preferred corridor from Bramford substation to the proposed site for the new connection substation, and the preferred corridor from the connection substation towards Tilbury.

From Bramford substation the corridor crosses immediately into the district of Babergh. It runs south easterly past Washbrook and Copdock, and East Bergholt to the south of the route until it crosses the border into the Colchester district briefly, running past Dedham, Langham and crossing the A12.

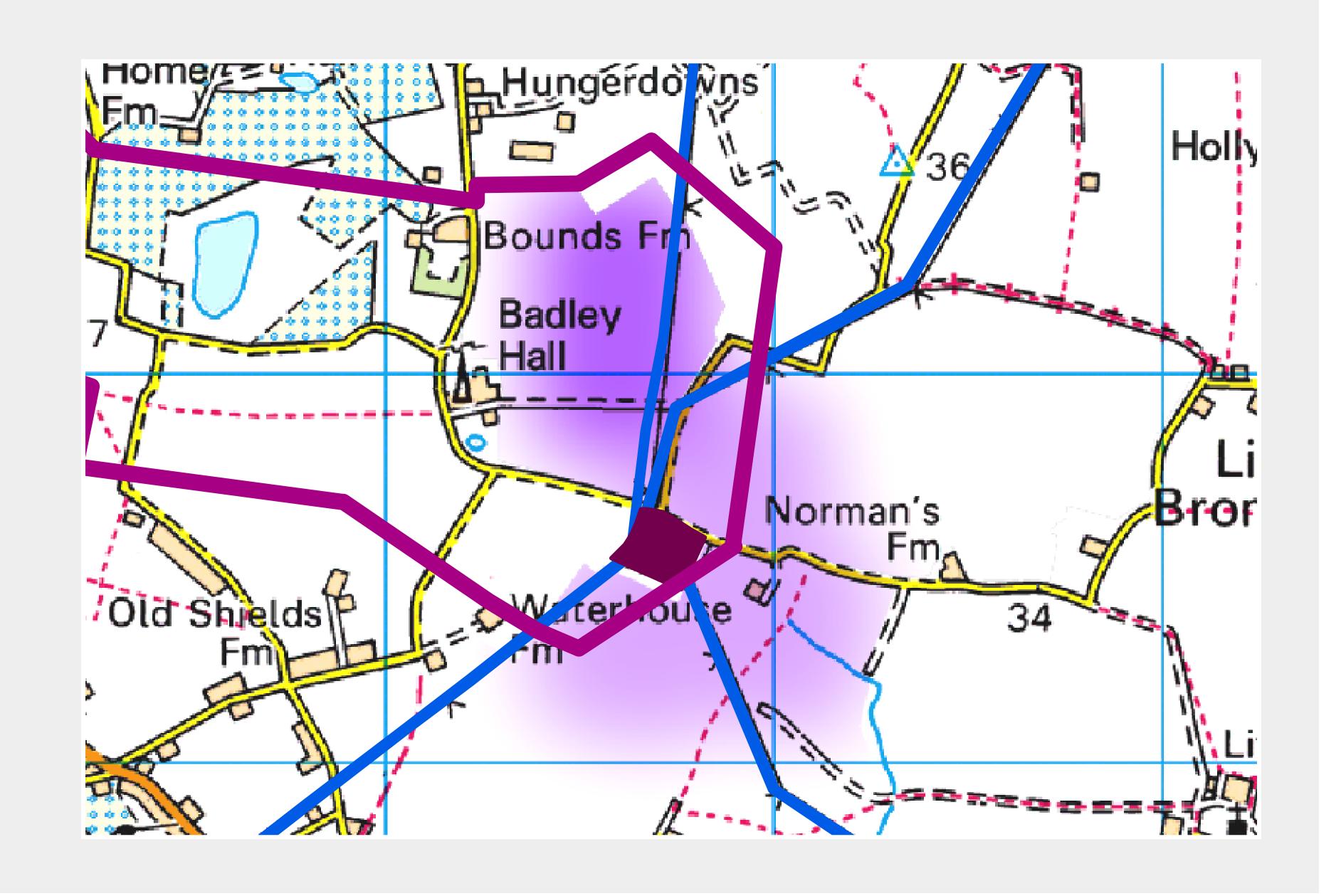
We expect the reinforcement in this section to consist of new overhead line supported by steel lattice pylons except where the route corridor intersects the Dedham Vale AONB. We expect to install underground cables where we cross this designated landscape.



The route then moves into the Tendring district turning eastwards into Tendring Peninsula to connect into the site of the East Anglia Connection substation (EAC).

The route then moves out of the new substation site heading west, crossing back over the A12 to continue the route running past West Bergholt and Marks Tey to the south.

We need to build a new substation in this area to connect two offshore wind farms. We have identified a graduated swathe where we might build the new substation in the vicinity of the existing 132 kV substation to the south of Lawford.





# After crossing into the Braintree district, the preferred corridor continues south west parallel to the north of the A12 and railway.

Passing Witham to the south and Silver End to the north before crossing the railway again heading north and continuing west towards the Chelmsford district.

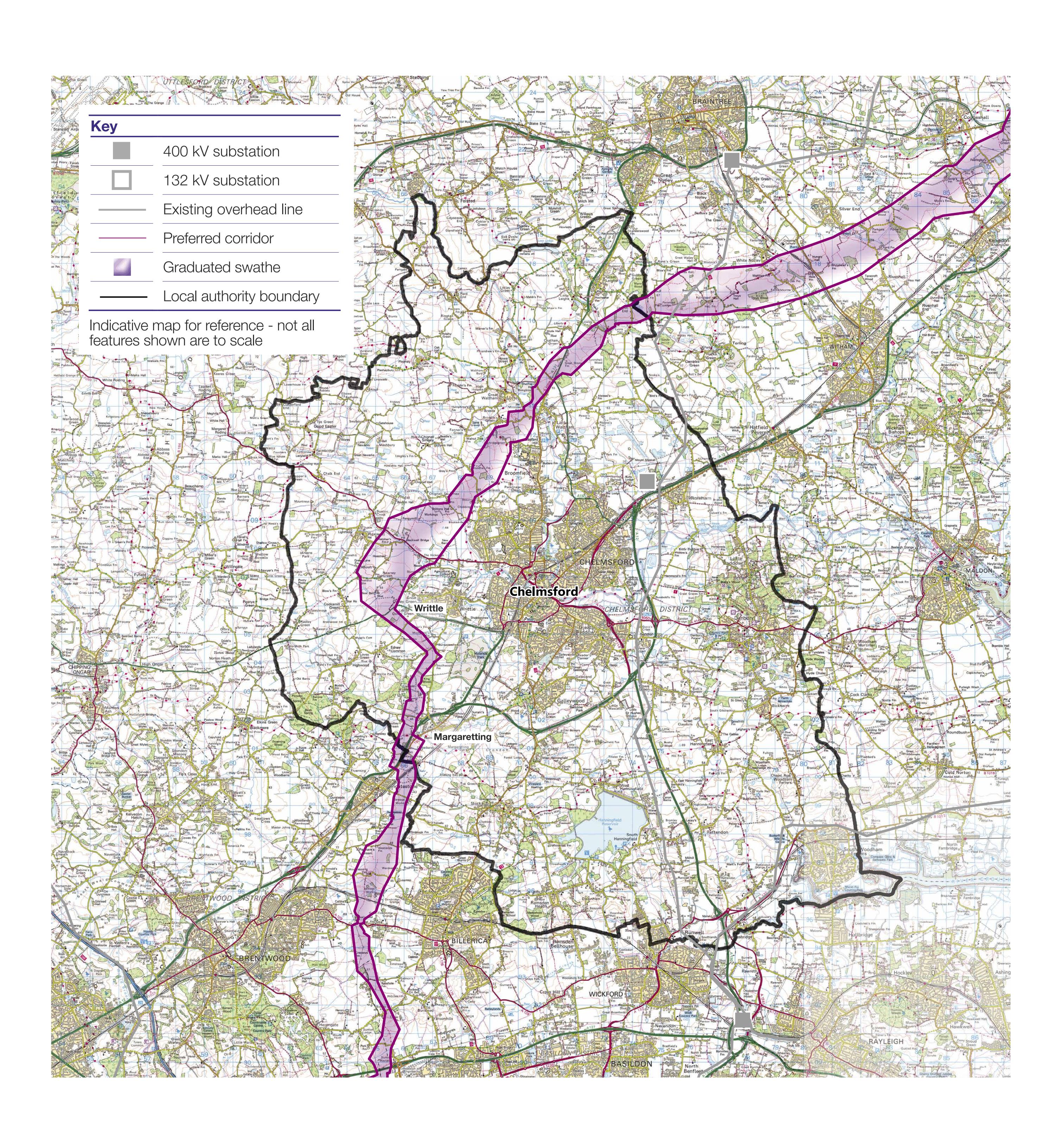
We expect the reinforcement in this section to be made up of new overhead line supported by steel lattice pylons.



Having routed into the Chelmsford district in the north east area, the preferred corridor then travels around the north of Chelmsford and begins to head south on the western side, with Writtle and Chelmsford to the east of the corridor.

The route continues south passing Margaretting and crossing over the A12 on the Brentwood district border.

We expect the reinforcement in this section to be made up of new overhead line supported by steel lattice pylons.



## Passing Ingatestone on the west the route crosses the A12 and the railway in the north of the Brentwood district.

The route then travels directly south crossing multiple times between the Basildon and Brentwood districts. Passing Hutton on the west and Billericay on the east. Continuing to then cross the A127 and railway on the border of the Thurrock district.

We expect the reinforcement in this section to be made up of new overhead line supported by steel lattice pylons.



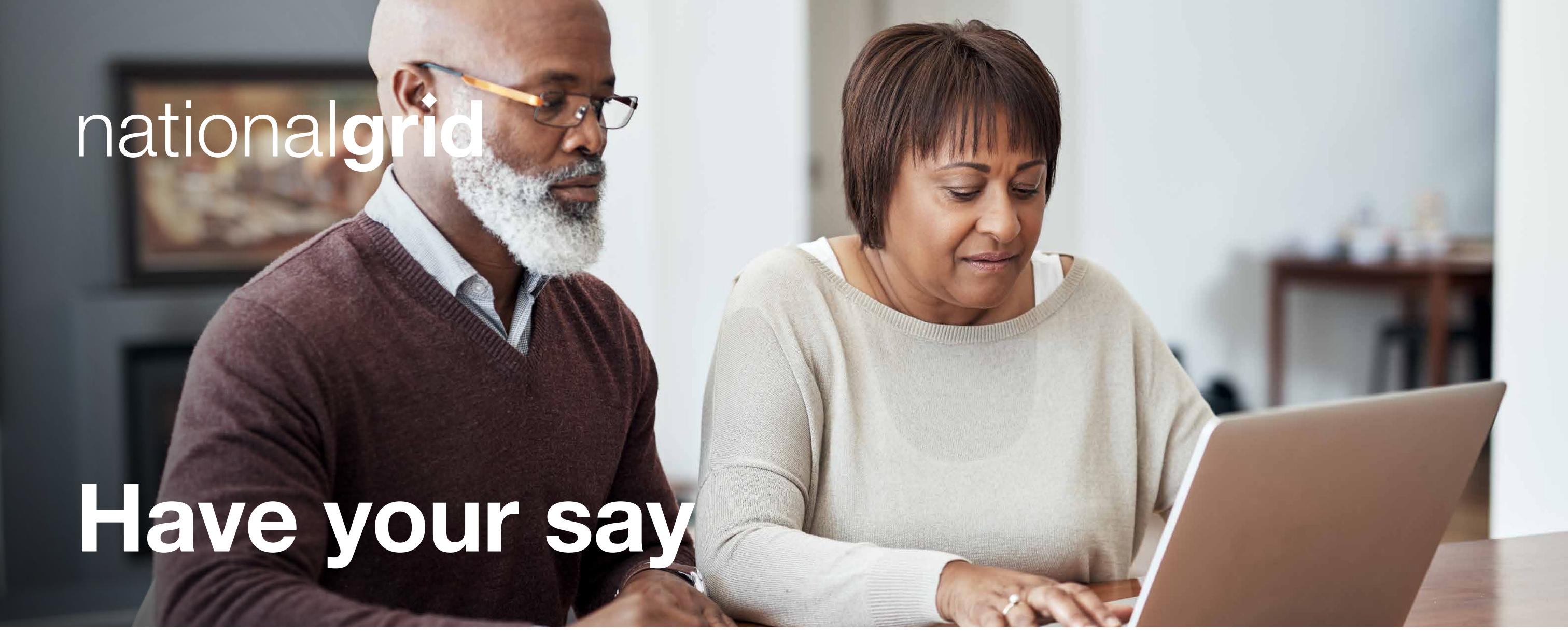
## The preferred corridor continues travelling south passing Bulphan on the west and then Hornden on the Hill on the east.

The route crosses the A13 and heads towards Linford and East Tilbury where the corridor then splits around. At this point we are considering which route would be most appropriate here.

We expect the reinforcement in this section to be made up of new overhead line supported by steel lattice pylons.

We would need to carry out some work at Tilbury substation to connect the new line. We expect the work to be contained within the existing boundary of the substation.





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.

We will carefully consider all feedback and we will respond to it as part of our application for development consent.

### How do I find out more about your proposals? You can find out more about our plans in a number of ways:

Viewing all information and interactive map on our

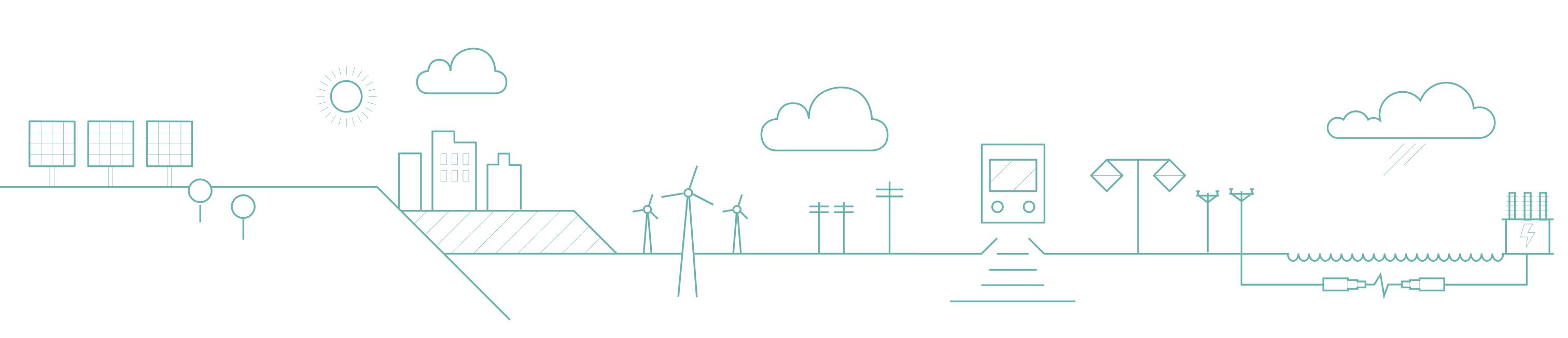
project website nationalgrid.com/east-anglia-green

- Reading our Project Background Document and Corridor Preliminary Routeing and Substation Siting report
- Attending one of our public exhibitions
- Visiting an information point to collect a feedback form and view the Project Background Document
- Having a one to one 'Ask the expert' video or phone session with one of our team - book by vising our website, calling or emailing us
- Attending one of our online webinars

#### To respond to the consultation

Please provide your feedback by 16 June 2022.

- Complete our online feedback form at nationalgrid.com/east-anglia-green
- Complete a feedback form or providing your written response to **Freepost EAST ANGLIA GREEN** (no stamp or further address needed)
- Email your comments to
   EastAngliaGREEN@nationalgrid.com
- Call us with your comments 0800 151 0992



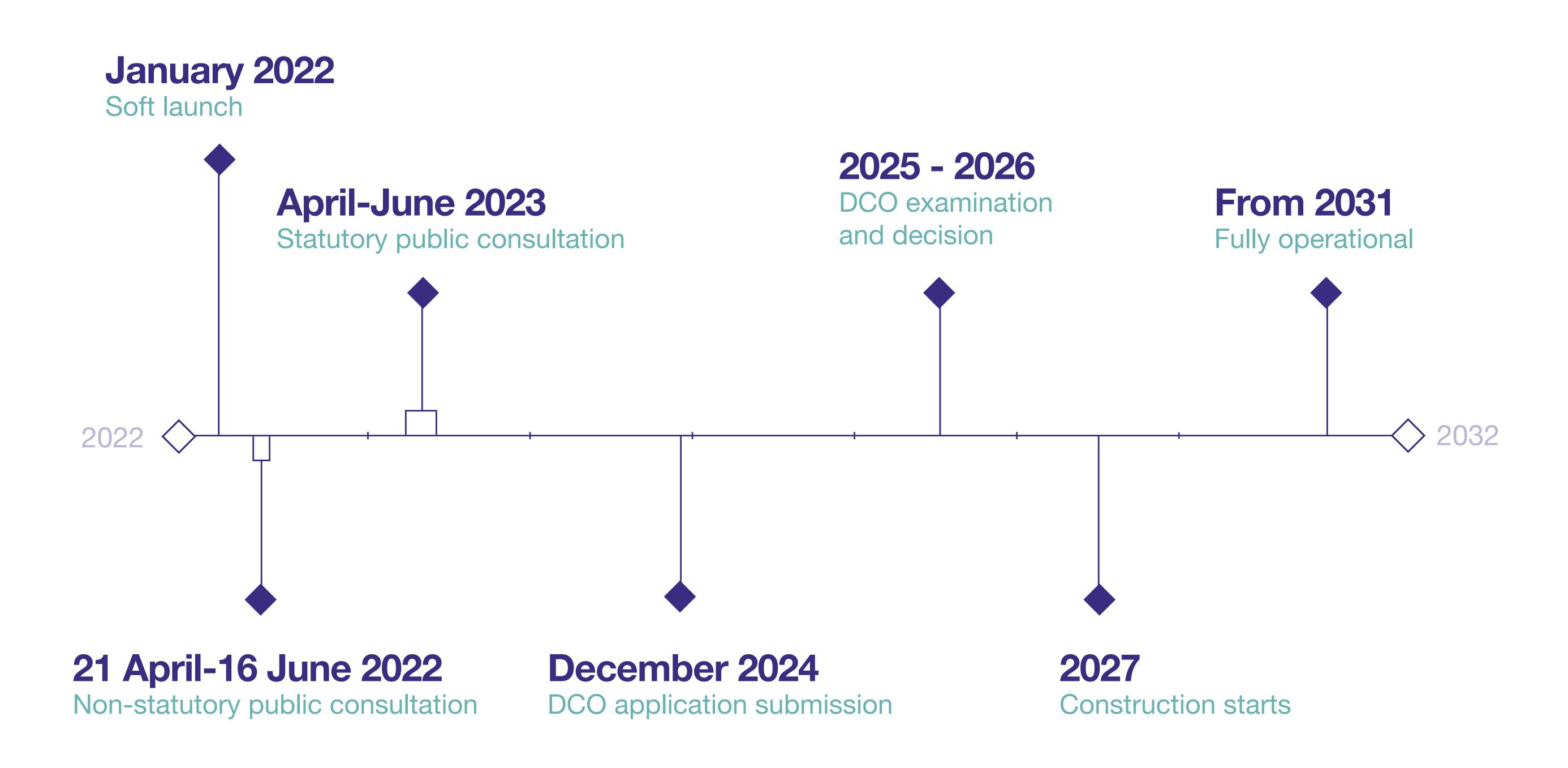


# The feedback received throughout the first stage of consultation will inform how East Anglia GREEN is developed further and will influence the next stage in the design of the project.

Following this consultation, we will review all the responses as we continue to develop the designs.

Our next stage of consultation is planned for in 2023, when we will present more detailed proposals and the findings from this consultation. At that point people will be able to see how we have taken their views into account, and provide further feedback on the project, which will help us further refine the project design.

Following further project design, the East Anglia GREEN Development Consent Order (DCO) application, including a Consultation Report to show how we have taken your views into consideration, would be submitted and examined by the Planning Inspectorate who would make a recommendation on the application to the Secretary of State for Business, Energy and Industrial Strategy. The Secretary of State makes the final decision on a DCO application.



### Contact us

Please get in touch if you have any questions on East Anglia GREEN.

Call our Community Helpline: **0800 151 0992** (Lines are open Monday to Friday 9:00am – 5:30pm)

Email us:

EastAngliaGREEN@nationalgrid.com

Write to us:

Freepost EAST ANGLIA GREEN
(No stamp or further address
details are required)

If you feel your land may be affected by these proposals, please contact the East Anglia GREEN Lands Team at Fisher German by calling 03450 131 864 or by emailing EastAngliaGreen@fishergerman.co.uk

Alternatively, you can write to East Anglia GREEN Lands Team at Fisher German, The Estate Office, Norman Court, Ivanhoe Business Park, Ashby de la Zouch, LE65 2UZ.



