

The Great Grid Upgrade

Eastern Green Link 5 (EGL 5)

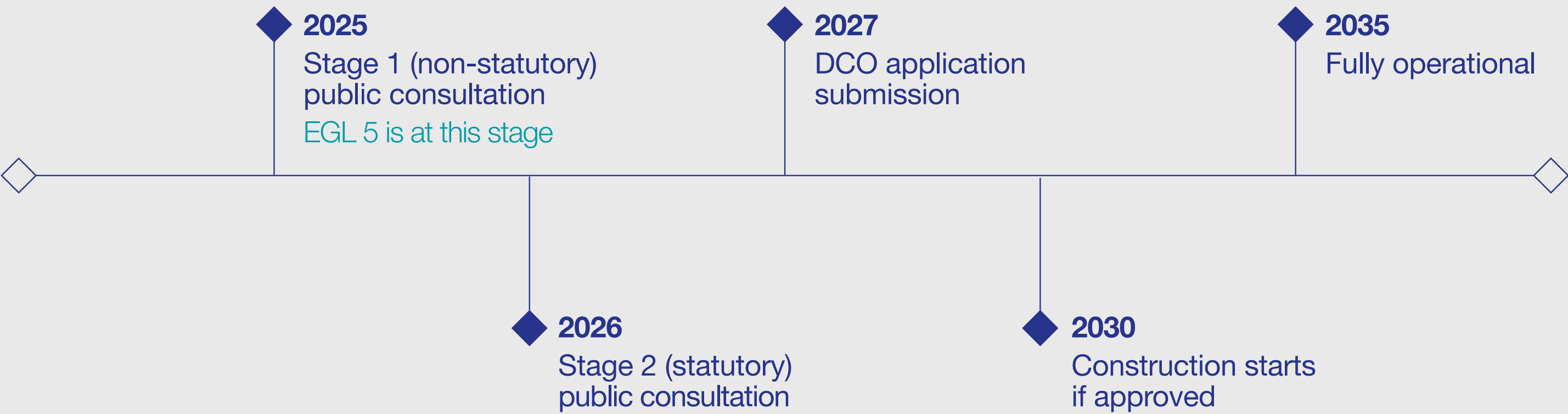
nationalgrid

EGL 5 is a new primarily offshore high voltage electricity link, with associated onshore infrastructure, between Scotland and England.

EGL 5 is needed to securely and reliably transport the increasing amount of energy generated in Scotland to parts of the Midlands and South of England.

By doing so, it would play an important role in building a more secure and resilient future energy system.

Project timeline



In March 2025, the Government published guidance for delivering community benefits for communities that host new onshore electricity transmission infrastructure. In line with this guidance, we will deliver programmes that deliver social, economic and environmental benefits to the local community and wider region. We will work with communities and stakeholders to understand their preferences.

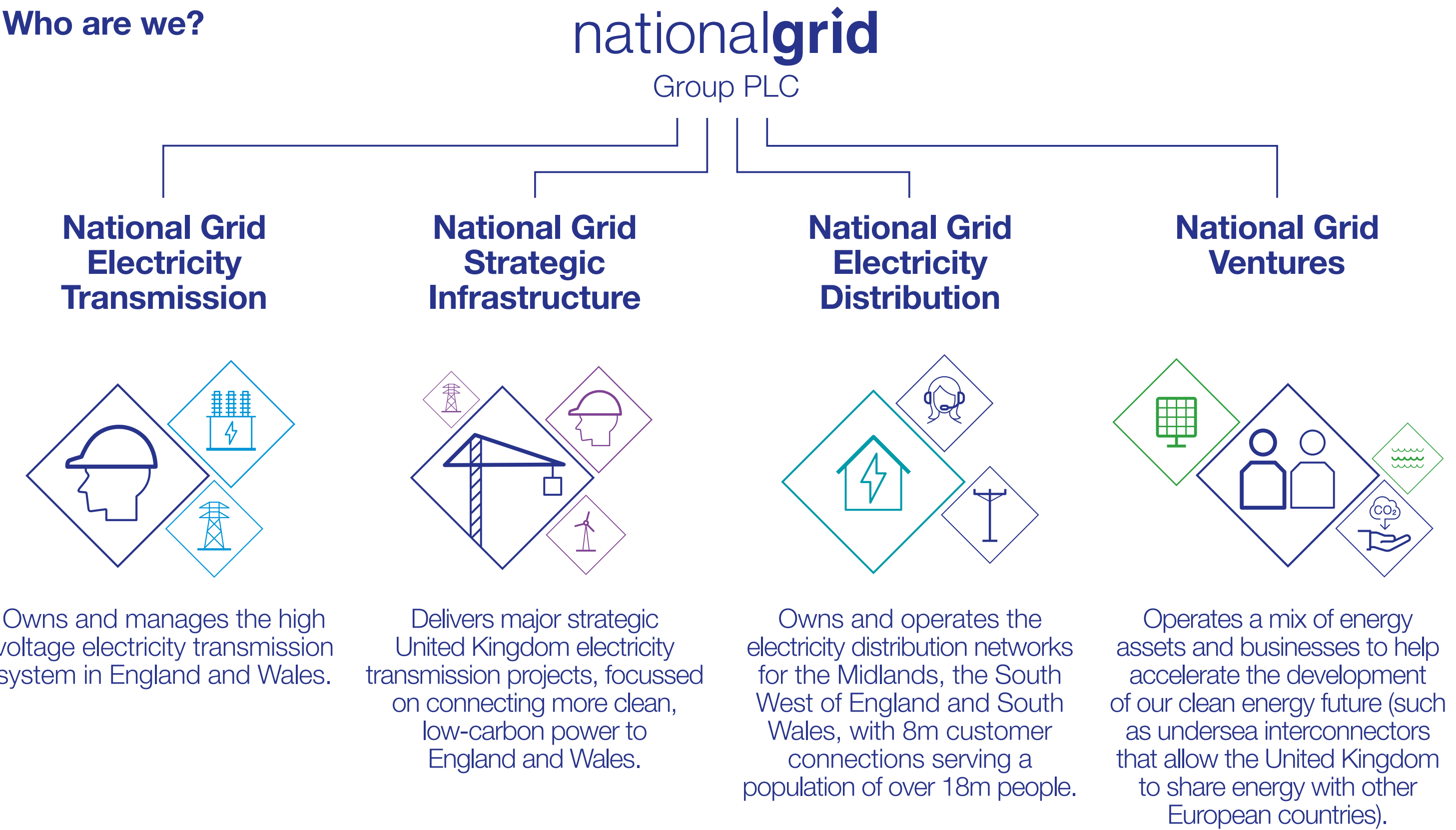
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Freepost EGL 5

Call us to request paper copies of the materials or materials in a different format.

Scan the QR code here to view our consultation documents on our website, see our webinar details, or book a 'team call-back' session.

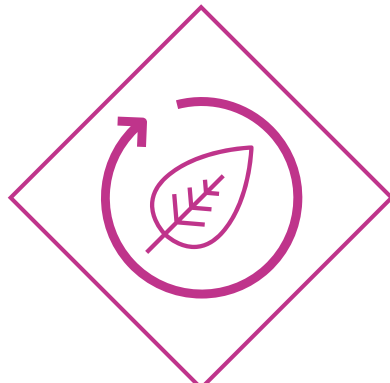


Who are we?

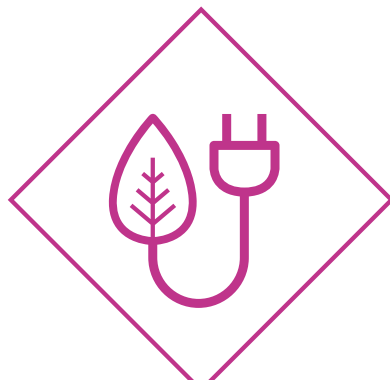


What is The Great Grid Upgrade?

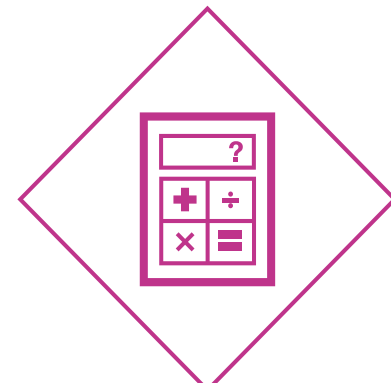
The Great Grid Upgrade is the largest overhaul of the electricity grid in generations. Our infrastructure projects across England and Wales are helping to connect more renewable energy to your homes and businesses.



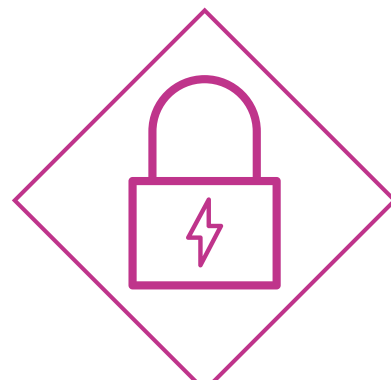
A grid that's fit for the future



More clean energy for all

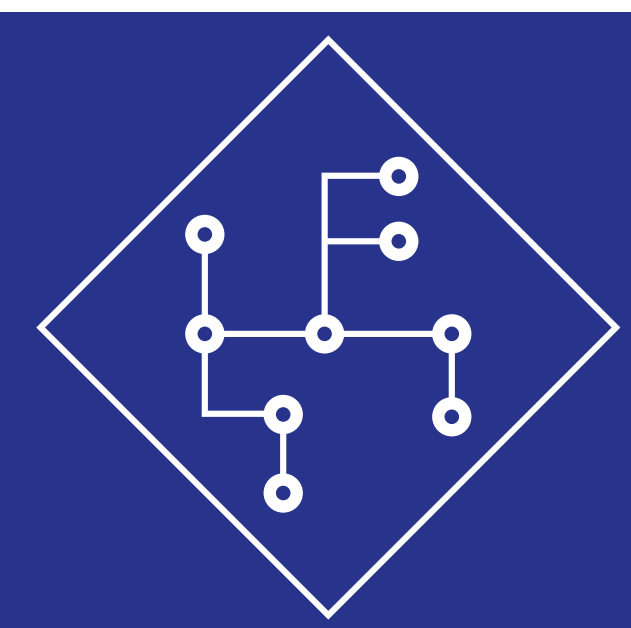
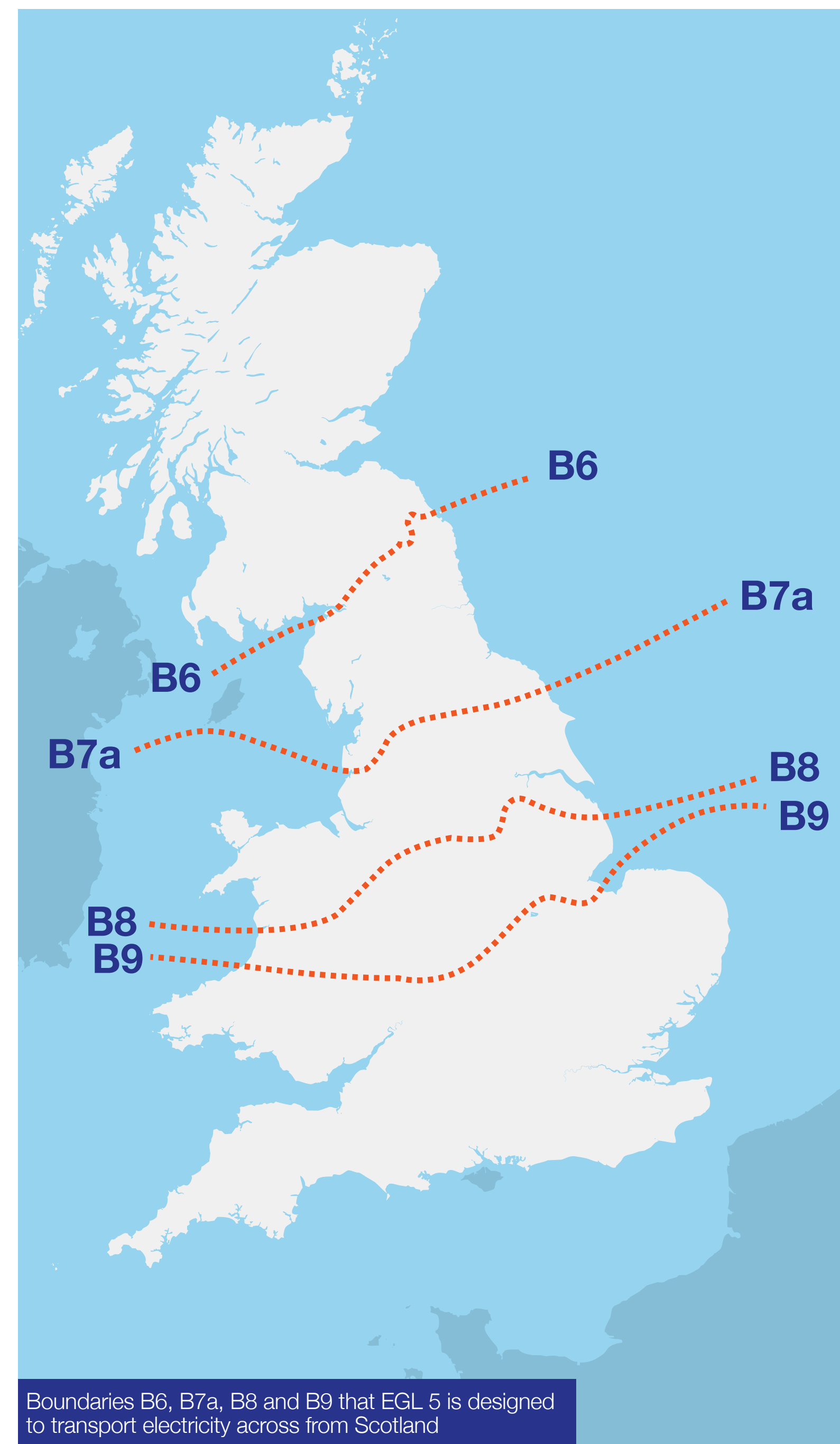


Investment close to home



Energy security

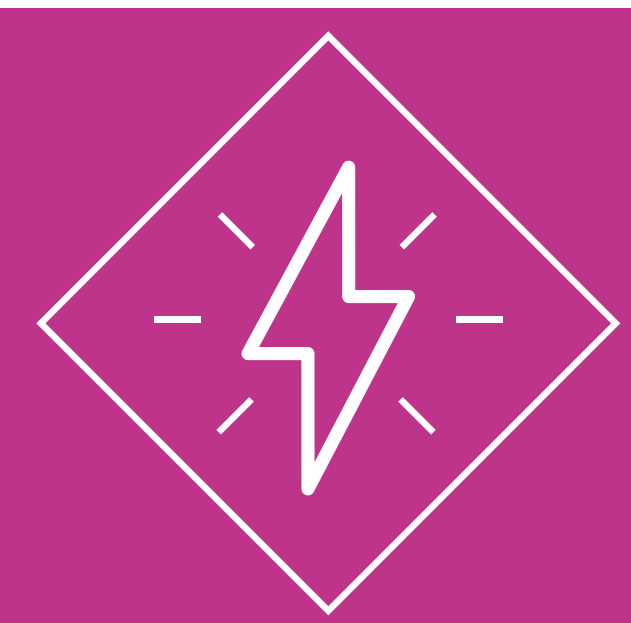
The need for EGL 5



Reinforcing the transmission network between Scotland and England

EGL 5 would form part of a major programme of reinforcement of the electricity transmission system to accommodate substantial and increasing power flows between Scotland and England.

We identified that the existing transmission network between Scotland, and the Midlands and South of England does not currently have the capacity to reliably transport this increasing energy.



How EGL 5 would help reinforce the network

The electricity network system in Britain is split into boundaries. Each boundary has a limit to the amount of electricity that can flow through it. As more electricity is being generated in Britain and demand is growing, we assess where the power flows between these boundaries will need to rise.

The boundaries shown here: B6, B7a, B8 and B9, are where we need to increase the capacity of the Grid for this increased amount of electricity. EGL 5 will help achieve this by transporting up to 2 GW of electricity – enough to power around two million homes.



Why here?

We appraised several potential locations for EGL 5 and concluded that connecting to the proposed new substation near Bilsby (proposed under the Grimsby to Walpole project) via the Lincolnshire coastline is the preferred option when considering socio-economic, environmental, cost and technical factors.



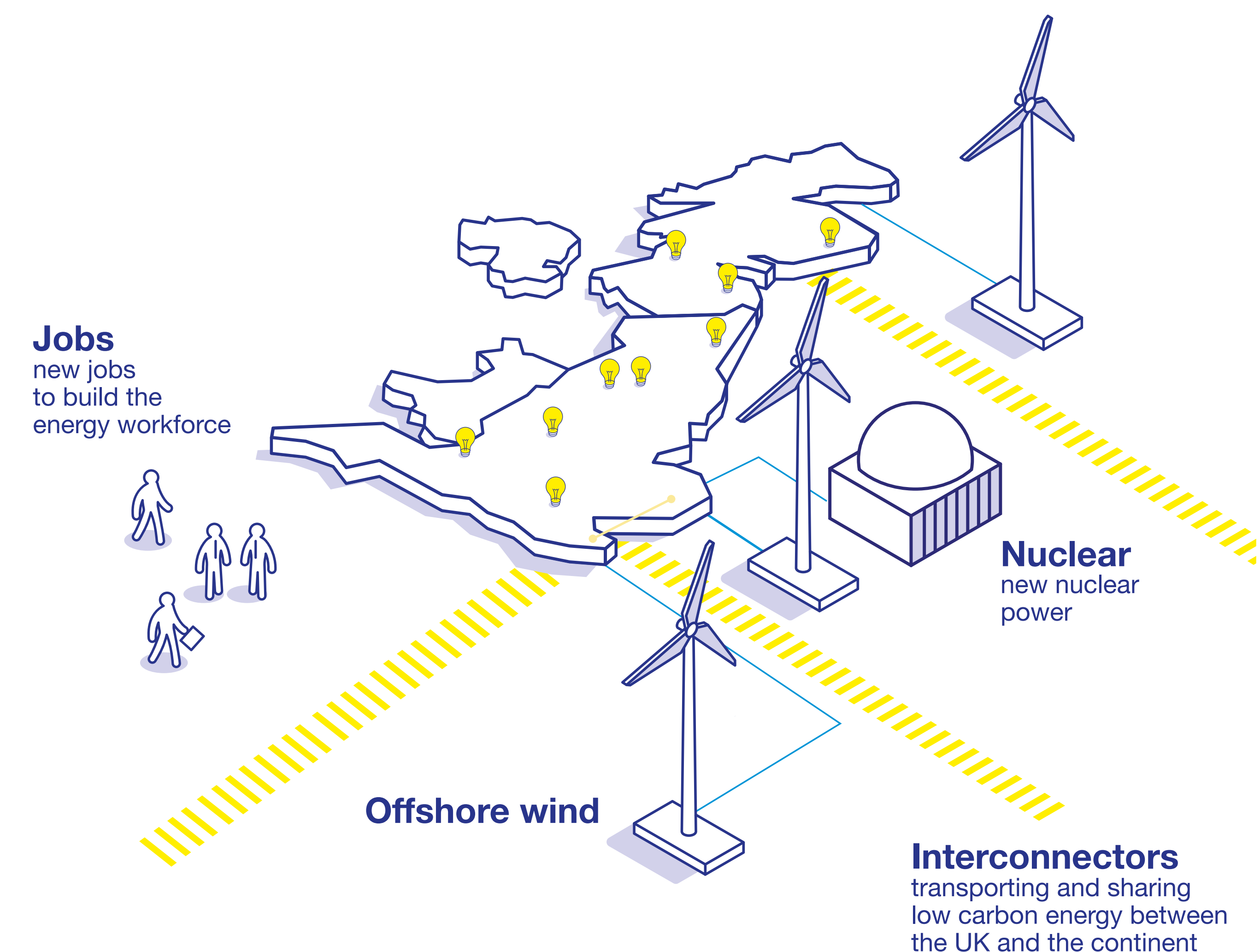
For more detail on the need case for EGL 5, please see our Stage 1 consultation document and Strategic options report.

Increasing energy security

The way electricity is generated is changing, with more renewable energy being generated in Britain.

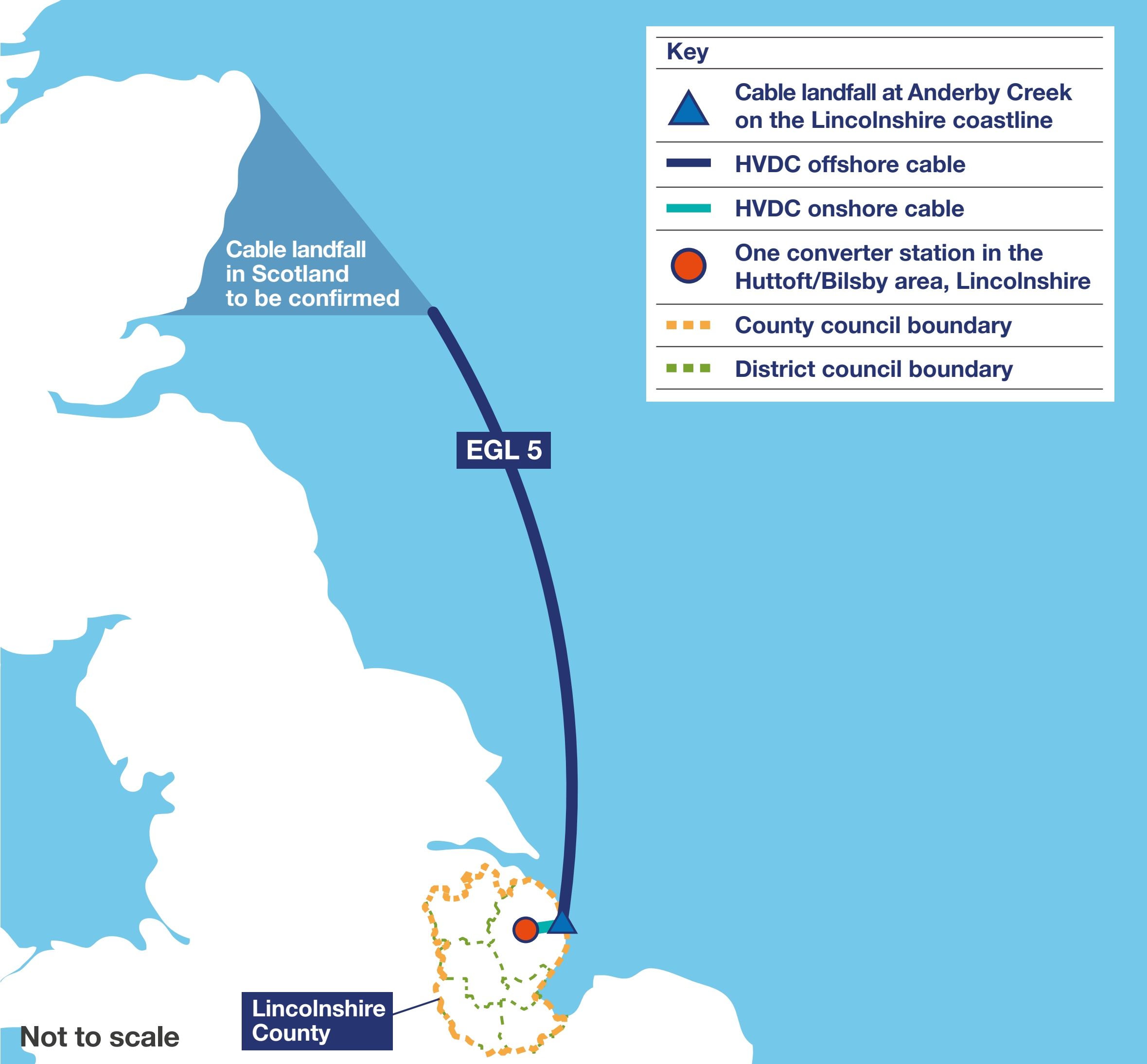
Demand is also set to significantly increase as the way we power our homes, businesses, industry and transport changes.

EGL 5 will help provide clean, secure and more affordable energy.



An overview of our proposals

Overview of EGL 5



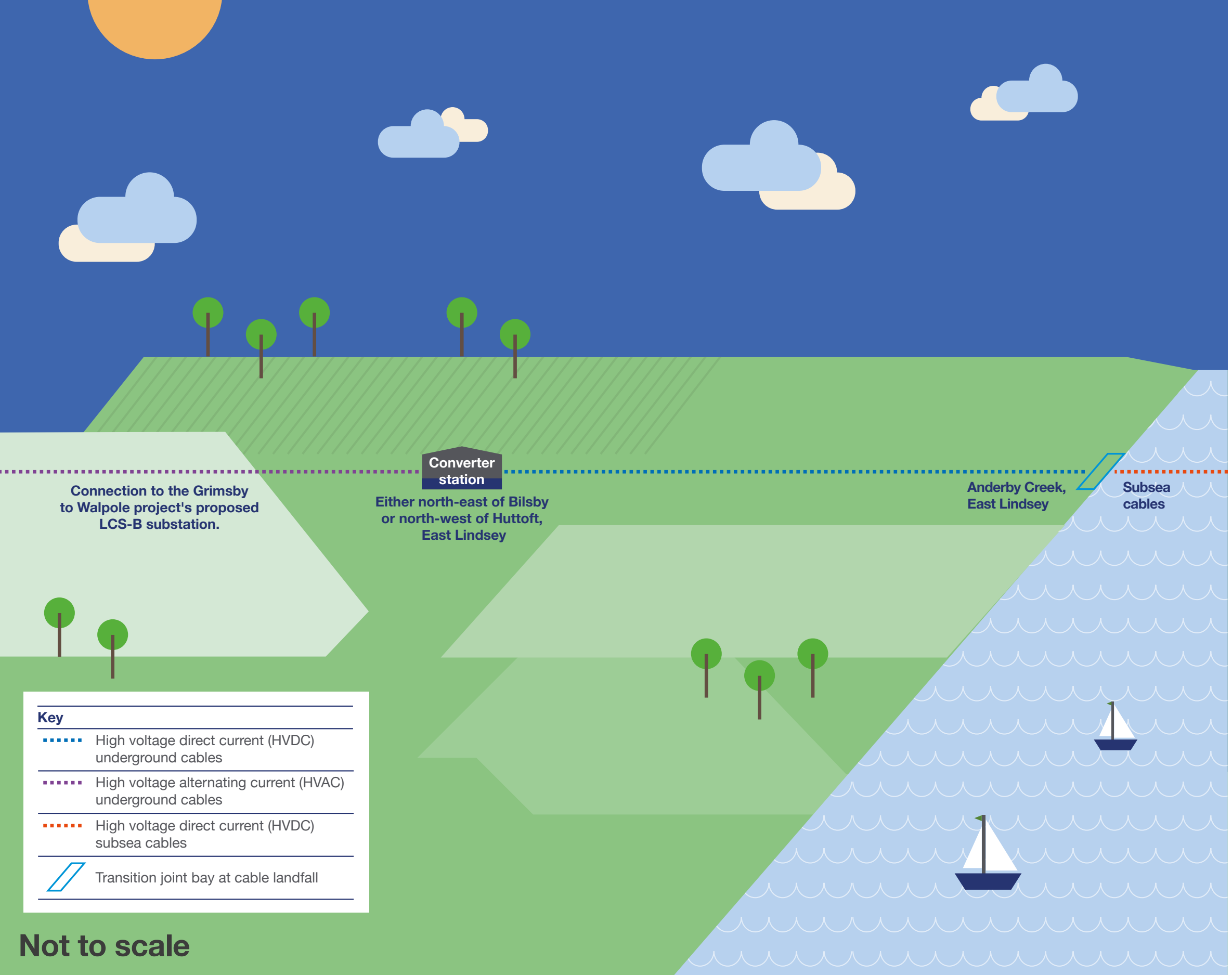
For a detailed map of our proposals, please see our interactive map that is available at this public information event and on our project website.

What we propose developing

- Offshore high voltage direct current (HVDC) cables.
- A transition joint bay which will enable the connection of the offshore and onshore HVDC underground cables, located onshore and underground near to our proposed cable landfall at Anderby Creek on the Lincolnshire coastline.
- Underground HVDC cables running approximately 9 km from the proposed landfall at Anderby Creek on the Lincolnshire coast to a converter station in East Lindsey.
- One converter station located either to the north-east of Bilsby or north-west of Huttoft.
- Underground high voltage alternating current (HVAC) cables running approximately 3 km to connect our proposed converter station to the proposed Lincolnshire Connection Substation-B (LCS-B) and onto the electricity transmission network.



EGL 5 onshore in England



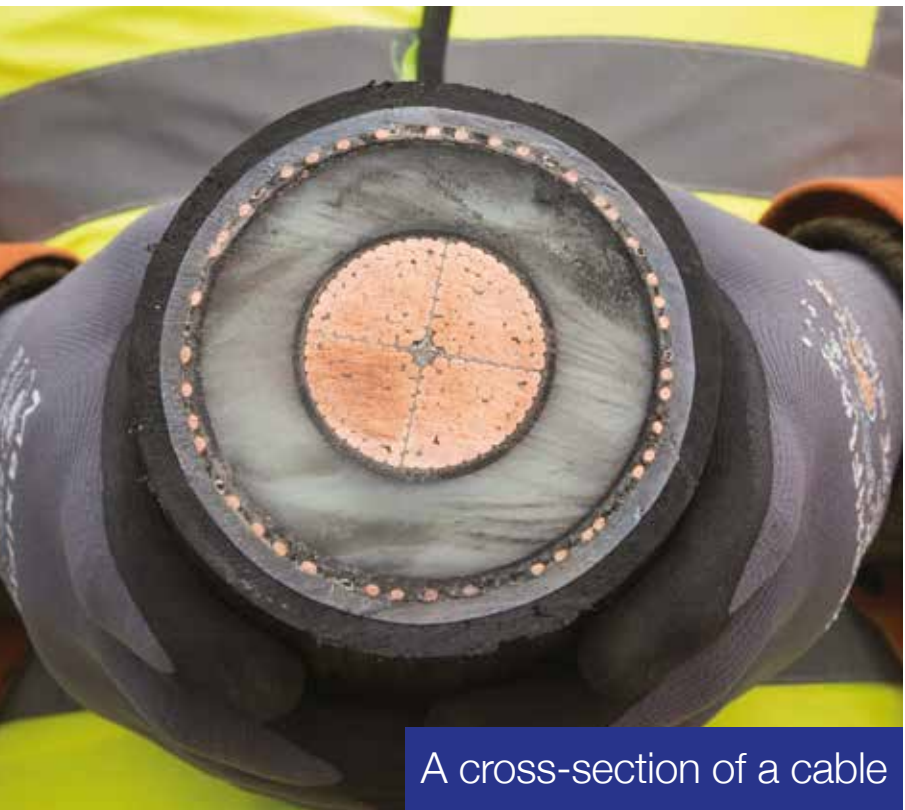
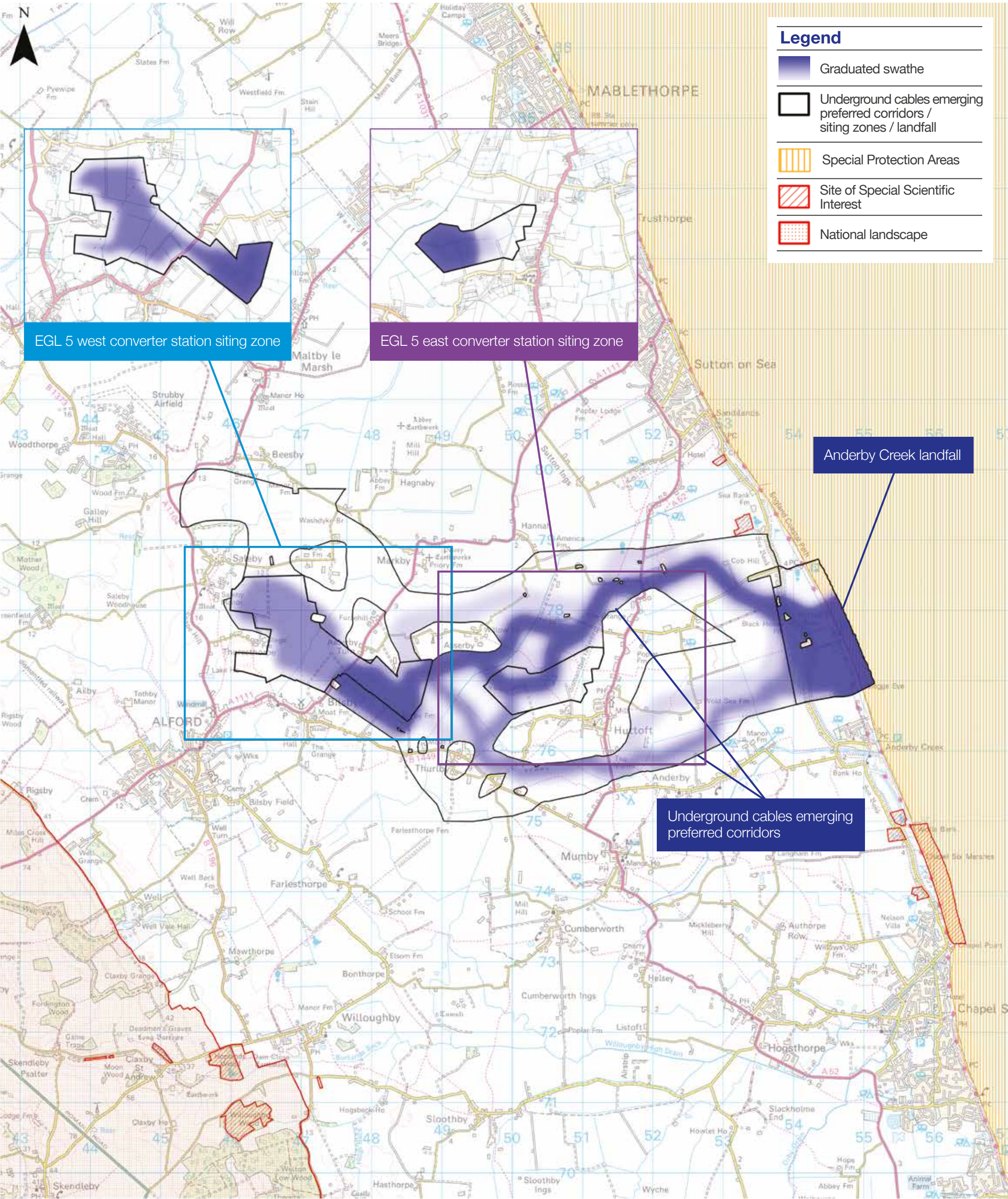
The Scottish end of the project

We're jointly developing EGL 5 with Scottish and Southern Electricity Networks Transmission (SSEN Transmission).

SSEN Transmission is responsible for obtaining the relevant consents in Scotland and in Scottish waters.

Our proposed onshore infrastructure

An overview of our onshore proposals in England



If you would like to see maps of EGL 5's onshore components up close, please view our individual maps or the interactive map available at this public information event or on our project website.

See our Stage 1 consultation document for more information on both onshore and offshore cable installation.

Converter station

Converter stations enable us to control the direction in which energy flows along high voltage direct current cables and contain specialist electrical equipment that converts electricity from direct current to alternating current or vice versa.

We expect that the converter station would have a footprint of approximately 350 m by 250 m (approximately 9 ha) and be up to 30 m tall, excluding aerials, lightning protection, earthworks and platform raising that may be required.

Our proposals include only one converter station, although as part of this consultation we are asking for your views on two potential options for its location.

Transition joint bay

Our proposed landfall at Anderby Creek is where the onshore underground cables and offshore cables would meet. The cables would be connected at a buried transition joint bay located on land above the mean high water springs level.

A transition joint bay is a permanent underground chamber constructed of reinforced concrete that houses the onshore and offshore cable joints and a fibre chamber/link pit.

A single transition joint bay typically comprises an area of 60 sq. m.

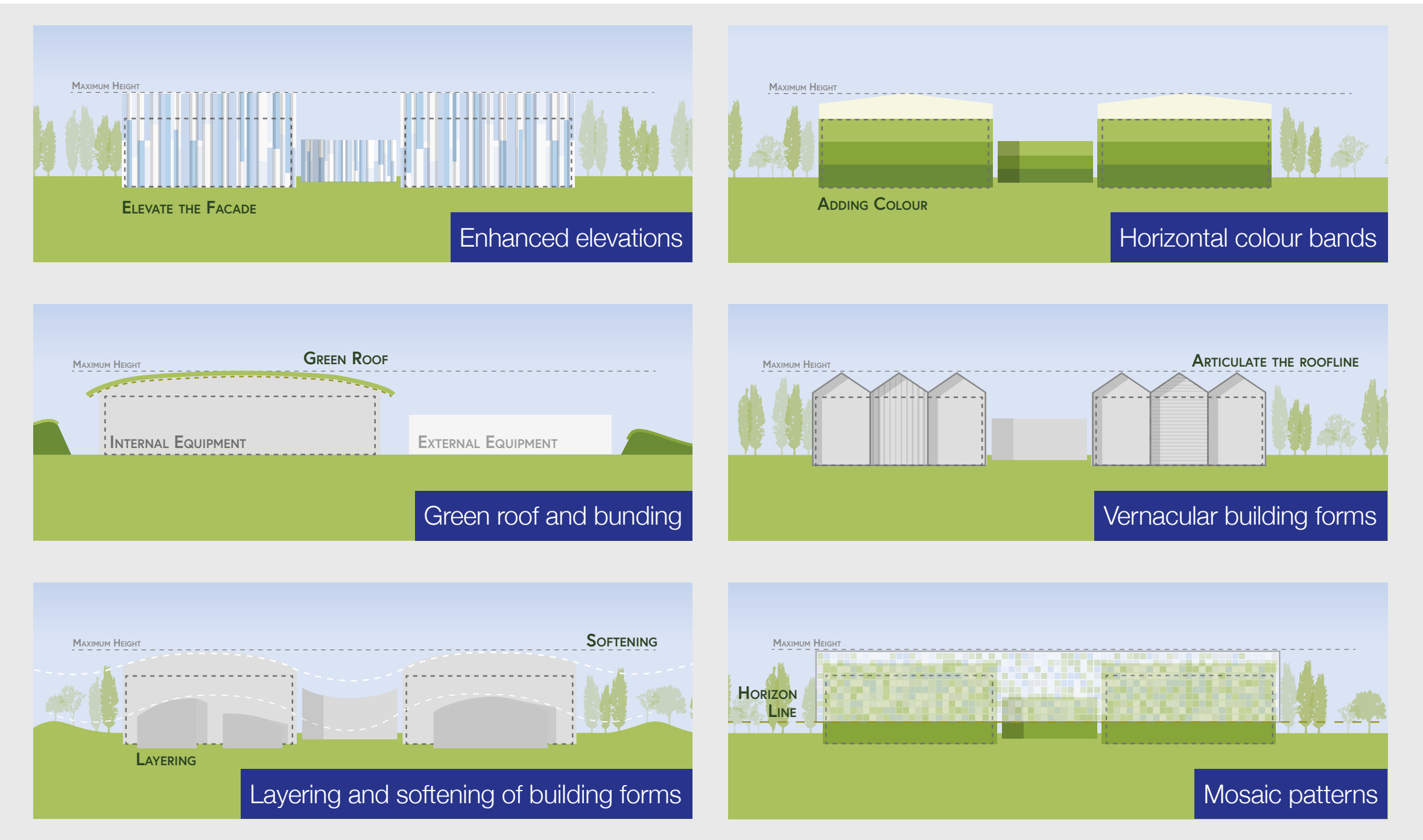
Underground cables

A variety of methods can be used to lay underground cables, including ducted and trenchless methods.

To install our cables a construction area is required. This is called a swathe and includes a cable trench/ducting, soil storage and a temporary haul road.

Once the cables have been installed, the swathe is reinstated, with the land returned to its former use.

Potential design approaches to proposed converter stations



An example image of a converter station



Our offshore proposals

We will be seeking permission for EGL 5’s offshore proposals in English waters via the development consent order (DCO) process, together with the onshore elements of EGL 5 in England.

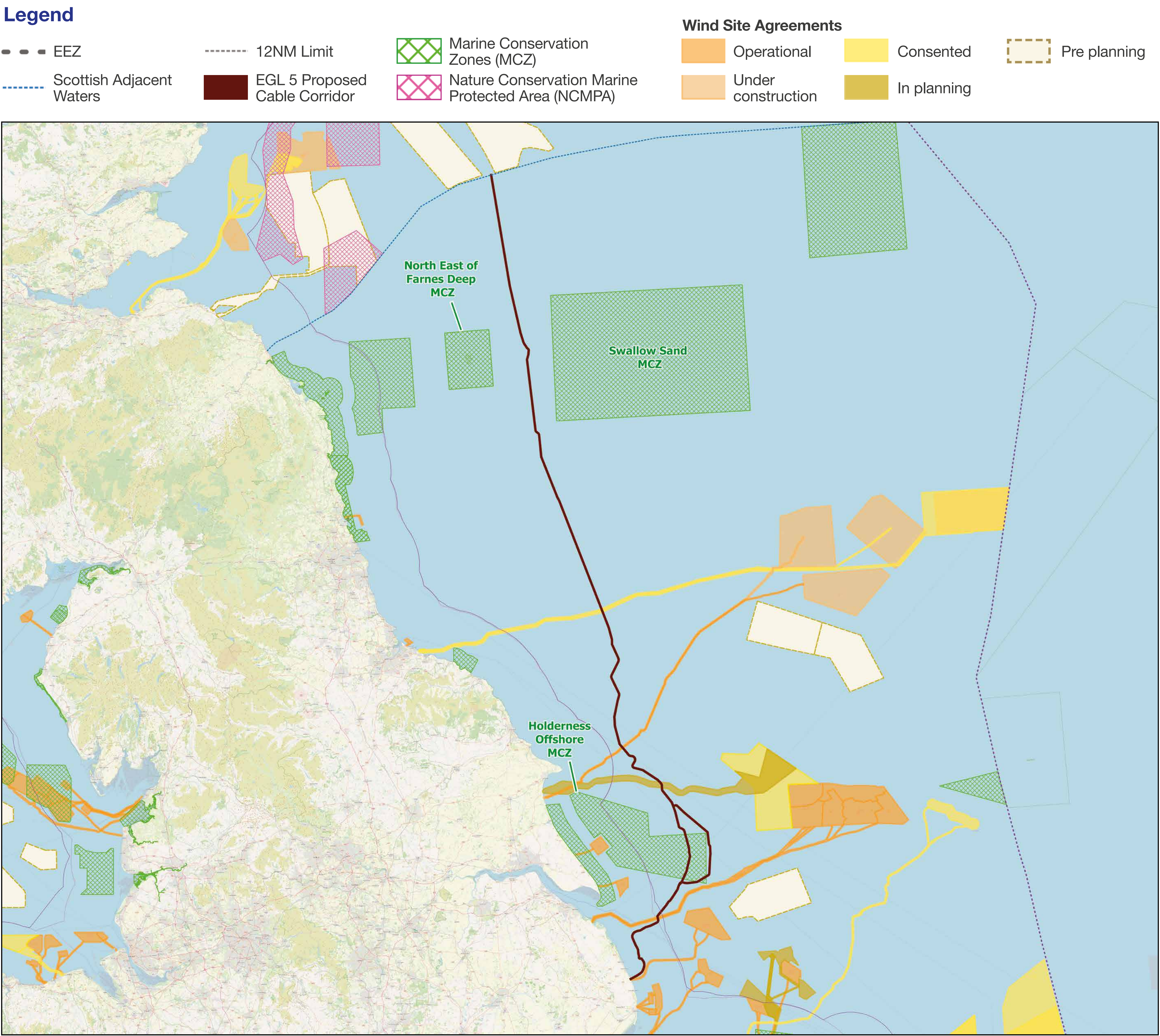
The DCO would include a deemed marine licence for the project regarding the offshore works.

Scottish and Southern Electricity Networks Transmission (SSEN Transmission) are responsible for obtaining the relevant consent for its section of EGL 5’s cable in Scottish waters.

Our proposed offshore route

The EGL 5 cables would be approximately 555 km in length and extend from landfall in Scotland, to landfall at Anderby Creek on the Lincolnshire coastline in England. Approximately 415 km of the cables would be in English waters.

We have considered and assessed a number of options for the offshore route corridor. These options have been narrowed down to the route shown in the map below.



Contact us



Visit our website:
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