

The Great Grid Upgrade

The way we are all powering the things we love is changing. In the years ahead, more of our energy will come from renewables as part of the transition to a cleaner, greener future.

This means we need to build new infrastructure, as well as upgrade the existing electricity grid, to bring this clean, green energy from where it's generated to where it's needed by homes and businesses.

More clean energy for all

The Great Grid Upgrade will enable the electricity grid to carry more clean energy to communities in every part of England and Wales, helping us all reach net zero faster.

The Great Grid Upgrade is the largest overhaul of the grid in generations.

Energy security

The Great Grid Upgrade will connect clean energy that's produced right here in the UK, increasing the self-sufficiency of our energy supplies.

A grid that's fit for the future

As we continue to reduce our reliance on fossil fuels and increase clean energy generation, we'll be using more electricity than ever. That means we'll need a grid that's able to carry all of this extra electricity to wherever we might need it.

Investment close to home

As well as helping to reach net zero, the UK Government suggests that investment in onshore network infrastructure could support up to 130,000 jobs and contribute an estimated £4–11 billion of GVA (gross value added) to the United Kingdom economy in 2050.

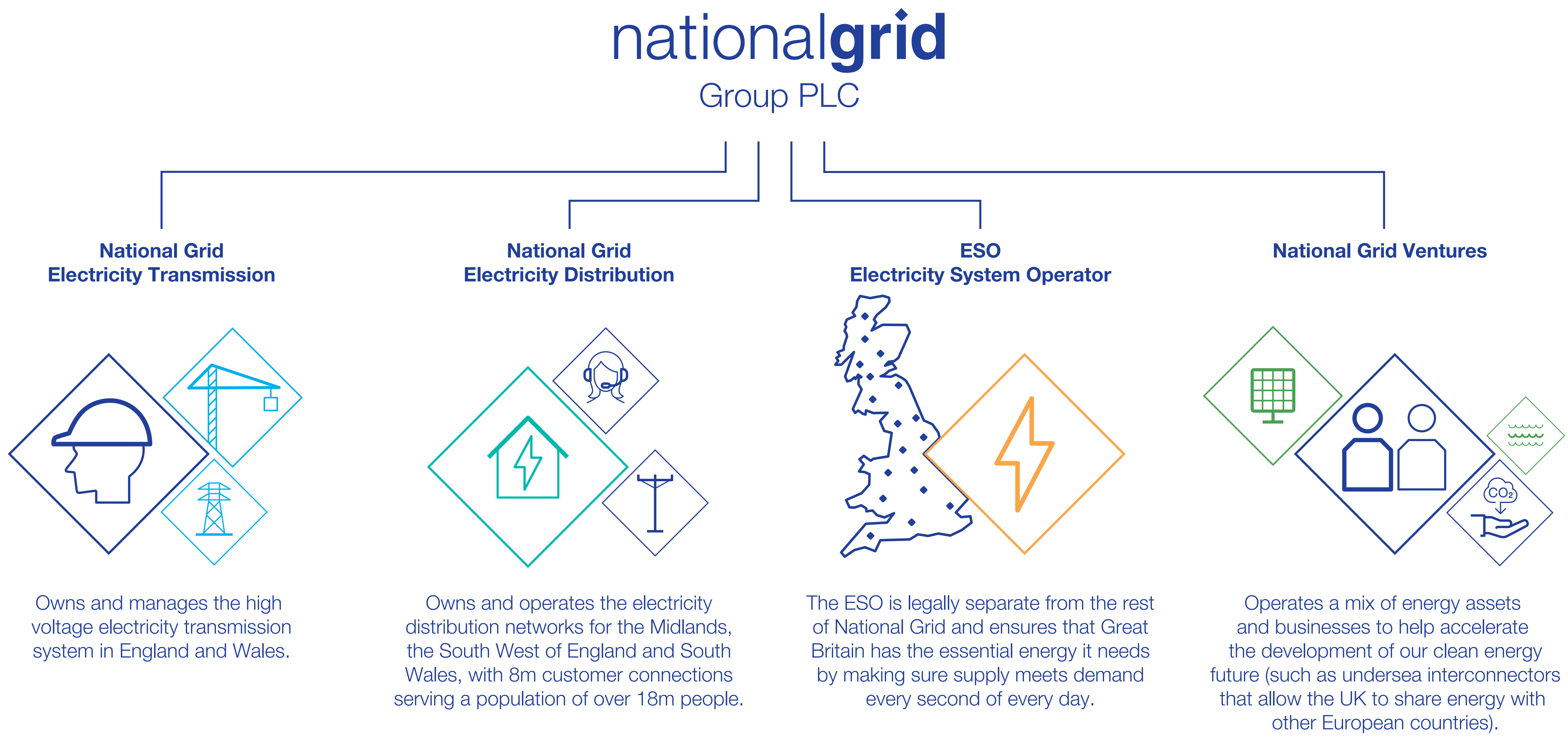


About National Grid Electricity Transmission

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

NGET 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 four distinctly separate legal entities, each with their individual responsibilities and roles. It is NGET that is developing plans for Grimsby to Walpole.



The Great Grid Upgrade

Grimsby to Walpole

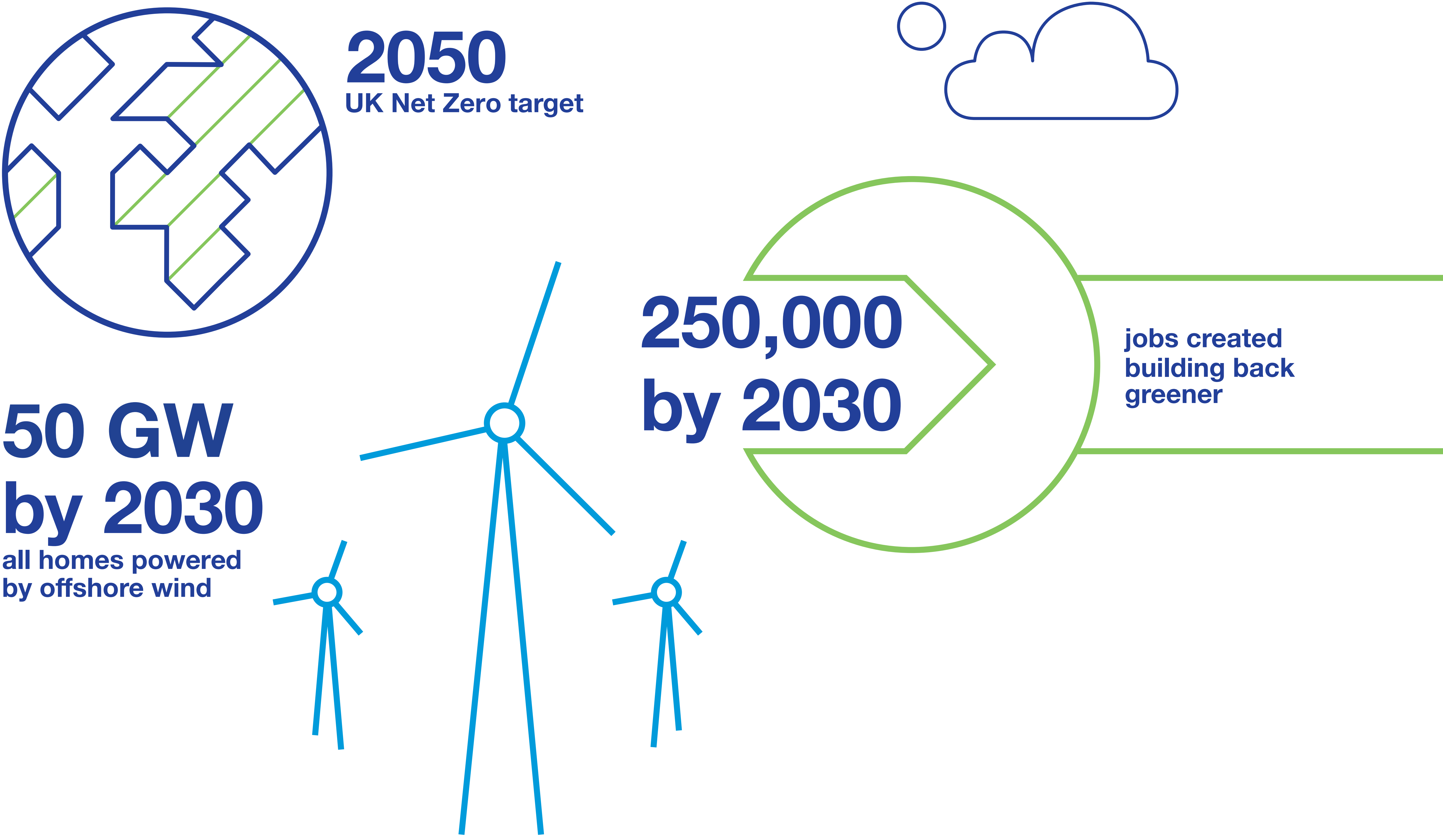
Moving to
Net Zero

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 UK has set a world-leading target to tackle climate change, which is to achieve net zero by 2050. Put simply, this means that we will remove the same amount of greenhouse gases 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 energy from where it is produced to where it is needed.

Grimsby to Walpole will help the transition to clean energy by making sure the grid is ready. Our proposals are part of The Great Grid Upgrade – the largest overhaul of the grid in generations.



Why we need to build Grimsby to Walpole

The new Grimsby to Walpole line will increase the capability of the network to carry clean, green energy between the north of England and the Midlands, and between the Midlands and the South.

This reinforcement is one of several network upgrades that need to be accelerated to help meet increased government targets for offshore wind.

The electricity transmission network is limited to the north and south of this area, where it was largely built in the 1960s.

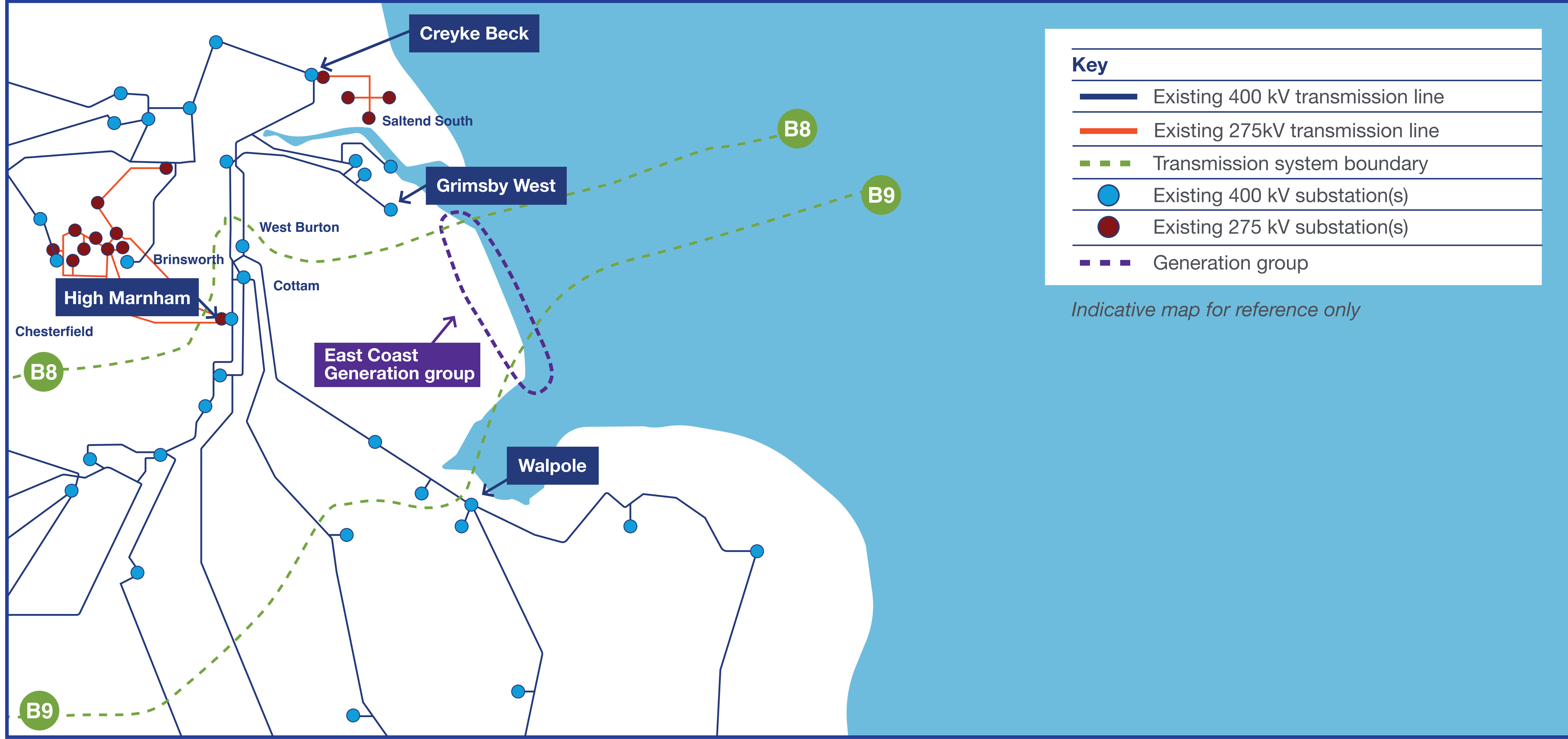
In North East Lincolnshire, the network was initially developed to supply demand in and around Grimsby and the South Humber Bank, with the network extending into the area from Keadby in the Trent Valley to Grimsby West.

In south Lincolnshire, a new substation was built at Bicker Fen in the 1990s to meet increased demand on the local distribution network.

With growing offshore wind and interconnectors with Europe, an anticipated tripling of wind generation connected across the Scottish networks by 2030 and the UK Government’s increased ambition to connect 50 GW of offshore wind by 2030, north–south power flows on the electricity network are set to increase.

The ESO anticipates, in the Electricity Ten Year Statement, that the network between the North and the Midlands needs to be capable of transferring around 25.9 GW of electricity by 2033, compared with the 11.6 GW that it can transfer today, while remaining compliant with the standards the network is operated to. Similarly, the network between the Midlands and the South needs to be capable of transferring about 22.4 GW of electricity by 2033, compared with 12.5 GW today.

Before building new lines, where we can, we first carry out work to get more capability from the existing network. In the first part of the next decade, we are doing just that. But this work will only increase network transfer capability to about 14 GW between the North and the Midlands and to around 15.6 GW between the Midlands and the South – falling short of what is needed by 2033. We therefore need to add to the network to deliver the capability that is required.

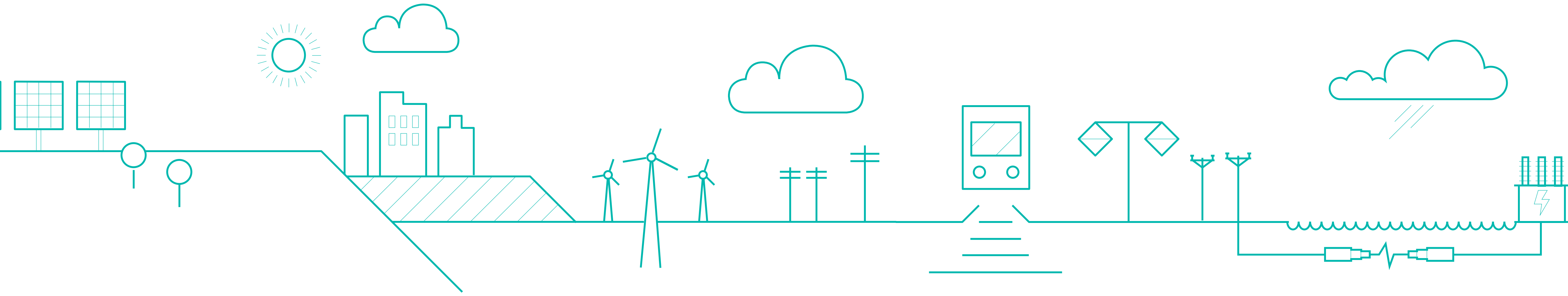
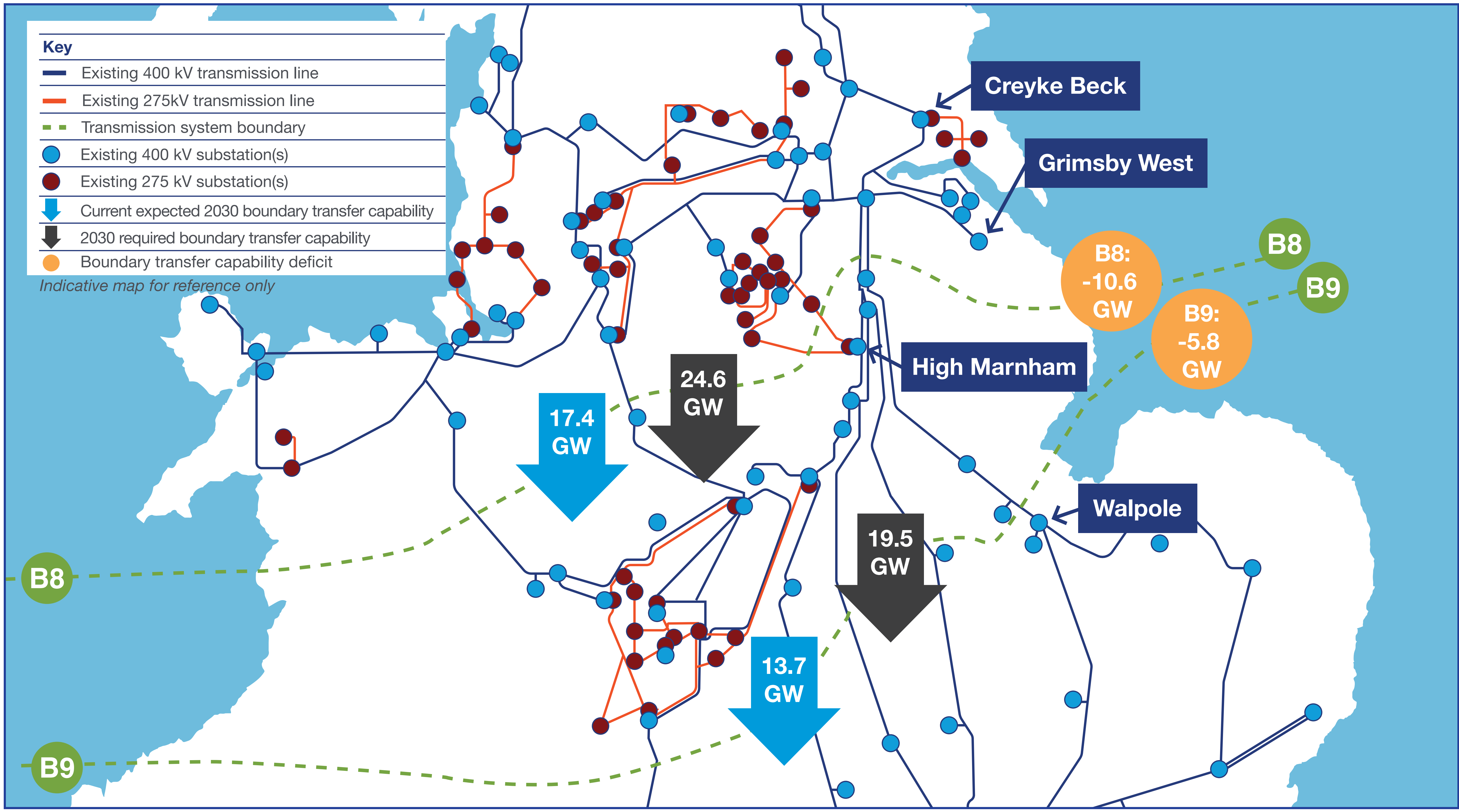


Why we need to build Grimsby to Walpole

Up to 18 GW of new sources of electricity – proposed offshore wind, interconnectors and solar/ battery storage – are planned to connect in the region area by the mid-2030s.

Some 9.7 GW of this is contracted to connect to the transmission system in a location where the existing network does not extend today.

We therefore need to build a new electricity transmission line which adds capability between the North and the Midlands and between the Midlands and the South, and enables the connection of clean, green energy along the East coast.



Our proposals

Our proposals include building a new 400,000 volt (400 kV) electricity transmission line over a distance of approximately 140 km and five new 400 kV substations.

The reinforcement would run between a new substation next to our existing Grimsby West substation in North East Lincolnshire and a new substation near our existing Walpole substation in Norfolk. Three additional new connection substations are also required along the route.

We have identified an emerging preferred corridor within which the new overhead line could be routed. We have also developed a blue-shaded ‘graduated swathe’. This shaded area is darker where an alignment is more likely, when considering environmental factors and identified constraints, and is lighter where it is less likely.

This swathe remains indicative until more detailed assessment work is done. New pylons and conductors (electrical wires) would be located along the overhead line route. Traditional 400 kV lattice steel pylons, typically around 50 metres in height, are being considered as a starting position.

Where the new overhead line would interact with existing overhead lines, short sections of undergrounding of the existing lines may also be needed.

Our emerging preferred corridor has been split into 11 sections covering ten local authority areas. Please speak with a member of the team if you are unsure which section is most relevant to you.

From our engineering and environmental assessments, we have identified an emerging preferred corridor for the new reinforcement.



Shaping our proposals

This is our first stage of consultation – about our early proposals. Your views will help shape our plans as we consider the feedback from this consultation and develop more detailed proposals.

A further stage of consultation will be held in 2025. We will consider all the feedback we receive as we continue to shape our plans, before applying for consent to build and operate Grimsby to Walpole.

Grimsby to Walpole is a Nationally Significant Infrastructure Project, which means an application for a Development Consent Order will need to be prepared and submitted to the Planning Inspectorate. Ultimately, the Secretary of State for Energy Security and Net Zero will be responsible for making the final decision on the application.

As we develop our plans, we carry out environmental surveys. We report on these when we apply for consent. We use best practice environmental impact assessment techniques to assess the possible effects of our work on the environment and identify opportunities for mitigation measures.

We also liaise closely with other major infrastructure projects in the area to understand how our proposals interact. We are committed to exploring opportunities to coordinate and minimise potential impacts on local communities and the environment.

Working with local stakeholders, we will develop and deliver landscaping and biodiversity net gain proposals, construction and environmental management plans, and a social value strategy that ensures we leave a lasting positive legacy and deliver community benefits in the areas that host our infrastructure. We will outline more about that at the next stage of consultation.



Our proposals from Grimsby West to Alvingham and Keddington

The proposed reinforcement starts with a new overhead line routed from a new substation next to our existing Grimsby West substation.

Our emerging preferred corridor has been split into 11 sections to make it easier for people to give feedback about any particular areas that they may wish to comment on.

One substation, to be located next to our existing Grimsby West substation, is needed to connect three solar/battery storage projects, plus two additional supergrid transformers for Northern Powergrid.

- Section 1 - Grimsby West to Barnoldby le Beck**
From the new Grimsby West substation (which the new overhead line would connect into) to a point immediately east of the village of Barnoldby le Beck.
- Section 2 - Barnoldby le Beck to North Thoresby**
Running immediately east of Barnoldby le Beck, south of Waltham Road, to immediately east of the village of North Thoresby, south of the B1201.
- Section 3 - North Thoresby to Alvingham and Keddington**
From east of North Thoresby, south of the B1201, to a point north east of Keddington and south west of Alvingham, south of Alvingham Road.



LEGEND	
	Existing 400 kV Overhead Line
	Existing 132 kV Overhead Line
	Emerging Preferred Corridor
	New Grimsby West Substation Siting Area
	Existing 400 kV Towers
	Graduated swathe

Our proposals from Alvingham and Keddington to Burgh le Marsh

The next part of the emerging preferred option corridor runs from Alvingham and Keddington to the proposed new substations at Tothill and Cumberworth, then reaching Burgh le Marsh.

- Section 4 - Alvingham and Keddington to Tothill**
From a point north east of Keddington and south west of Alvingham, south of Alvingham Road, to a point immediately east of Tothill.
- Section 5 - Tothill to Cumberworth**
Running immediately east of Tothill to west of Cumberworth and including proposed areas for the location of the two Lincolnshire Connection Substations (LCS) – LCS A and LCS B.
- The siting area for the LCS A substation covers an area north and west of Woodthorpe, east of Claythorpe and east of Greenfield Wood/Mother Wood.
- The siting area for the LCS B substation is located to the north of Bilsby, east of Saleby and west of Huttoft.
- Section 6 - Cumberworth to Burgh le Marsh**
From a point west of Cumberworth to a point east of Burgh le Marsh, south of the A158.



Our proposals from Burgh le Marsh to the River Welland

The route continues to travel from Burgh le Marsh to Midville before crossing the River Witham and the River Welland to reach the proposed substation located to the east of Surfleet Seas End and the River Welland.



- LEGEND**
- Existing 400 kV Overhead Line
 - Existing 132 kV Overhead Line
 - Emerging Preferred Corridor
 - Weston Marsh Substation
 - Search Area
 - Existing 400 kV Towers
 - Graduated swathe

- Section 7 - Burgh le Marsh to Midville**
Running west from east of Burgh le Marsh, south of the A158, to the west of Midville, south of Fodder Dike.
- Section 8 - Midville to River Witham**
From west of Midville, south of Fodder Dike, to a crossing of the River Witham between Langrick Bridge and Anton's Gowt. The siting area for the LCS B substation is located to the north of Bilsby, east of Saleby and west of Huttoft.
- Section 9 - River Witham to River Welland**
From a crossing of the River Witham between Langrick Bridge and Anton's Gowt to a crossing of the River Welland between Spalding and The Wash.

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Our proposals from the River Welland to Walpole

East of the River Welland, the emerging preferred corridor crosses the B1165, reaching the proposed new Weston Marsh substation before running to Walpole, where the new Walpole substation would be located.

Section 10 - River Welland to B1165

From a crossing of the River Welland between Spalding and The Wash to a crossing of the B1165 north west of Whaplode St Catherine. The corridor runs south to the proposed siting area for the Weston Marsh substation.

Section 11 - B1165 to Walpole

Runs from a crossing of the B1165 to the new Walpole substation. The proposed location of the new Walpole substation is near to the existing 400kV overhead line north of Walton Highway.



- LEGEND
- Existing 400 kV Overhead Line
 - Existing 132 kV Overhead Line
 - Emerging Preferred Corridor
 - New Grimsby West Substation Siting Area
 - Existing 400 kV Towers
 - New Walpole Substation Siting Area
 - Graduated swathe



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Grimsby to Walpole

Have your say

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.

Your feedback is important in helping us to develop and refine our plans. This is the first stage of consultation on our proposals. We will carry out further consultation as our plans develop.

When we carry out further consultation, we will explain in an interim report how feedback from this first stage of consultation has shaped our plans and we will outline the key themes in the feedback from this first stage.

We will report on the feedback from each stage of public consultation, and our responses to comments, in a Consultation Report which will be provided as part of our Development Consent Order application, which we are planning to submit in 2027.

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/g-w**
- reading our **Project Background Document, Strategic Options Report (SOR), SOR Addendum, Corridor Preliminary Routeing and Siting Study (CPRSS), and New Walpole Substation Location Options Report**
- attending one of our public exhibitions
- visiting an information point to collect a feedback form and view the Project Background Document
- requesting a call back from a member of the team - book by calling or emailing us
- attending one of our online webinars.

To respond to the stage 1 consultation

Please provide your feedback by 13 March 2024.

- complete our online feedback form at **nationalgrid.com/g-w**
- complete a feedback form or providing your written response to **Freepost G TO W** (no stamp or further address needed)
- email your comments to **contact@g-w.nationalgrid.com**
- call us with your comments **0800 0129 153**.



nationalgrid.com/g-w

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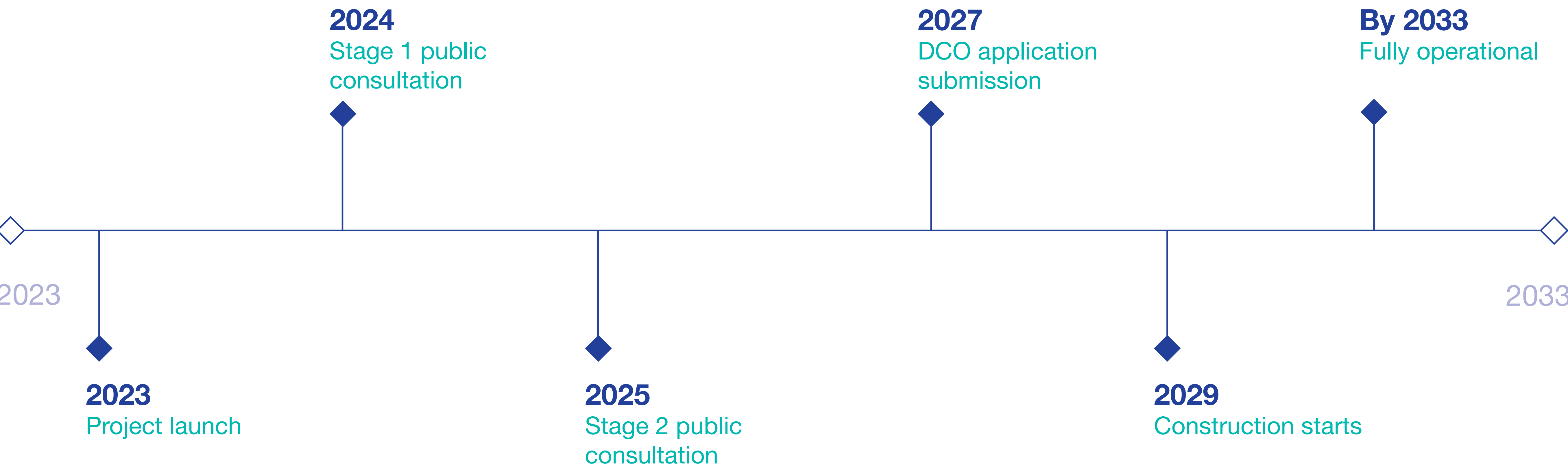
Next steps

The feedback received throughout the first stage of consultation will inform how our plans for Grimsby to Walpole are 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 stage 2 consultation is planned for 2025, 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, a Grimsby to Walpole 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, which would make a recommendation on the application to the Secretary of State for Energy Security and Net Zero. The Secretary of State makes the final decision on a DCO application.



Contact us

Please contact us if you have any questions on Grimsby to Walpole.

Freepost G TO W
(No stamp or further address details are required)

contact@g-w.nationalgrid.com

0800 0129 153 (Lines are open Monday to Friday 9:00am – 5:30pm)

If you feel your land may be affected by these proposals, please contact the Grimsby to Walpole Lands Team at Dalcour Maclaren:

Dalcour Maclaren, 1 Staplehurst Farm, Weston on the Green, Oxfordshire OX25 3QU.

g-w@dalcourmaclaren.com.

0333 034 7961.

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In the community

Communities play a vital role in the transition to cleaner sources of energy. We believe those that host energy infrastructure should benefit from doing so.

We are committed to working in collaboration with communities, stakeholders, suppliers and other parts of industry, to leave a lasting positive legacy by delivering community benefits in the areas that host our infrastructure.

In 2023, Government sought views about potential community benefits for those hosting new electricity transmission infrastructure. We welcome Government’s intention to publish guidance outlining principles for how communities should benefit from the development of onshore transmission infrastructure.

This will help set a framework for us, in consultation with local communities and stakeholders, to deliver community benefits that work for them. This could include, for example, supporting local community projects as well as delivering broader socioeconomic and environmental enhancements.

Opportunities for young people

To help achieve net zero by 2050, we estimate our industry needs to recruit 400,000 jobs between now and 2050. Find out more about careers, apprenticeships and student placements with National Grid:



Community Grant Programme

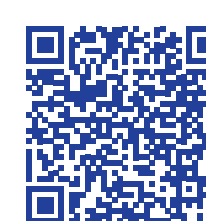
When we are nearer to construction, our community grant programme will be open for applications from local charities and not for profit organisations to support local community initiatives. You can find out more at:



Grid for Good

Grid for Good is our flagship programme that helps increase access to training and employment opportunities for young people. We support students with career coaching and masterclasses.

In 2023 we ran sessions with electrical engineering students at colleges in North Lincolnshire and we are looking to run more activities across Lincolnshire, North East Lincolnshire, Cambridgeshire and Norfolk. Find out more about Grid for Good:



nationalgrid.com/g-w