The Great Grid Upgrade

Weston Marsh to East Leicestershire

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About National Grid

National Grid delivers electricity safely, reliably, and efficiently to the customers we serve – all while working towards building a cleaner, fairer energy system for the future.

The parts of National Grid involved to ensure we all have the essential electricity supplies we need are shown in the diagram below.

Each is a separate legal entity with its own role and responsibilities across England and Wales.

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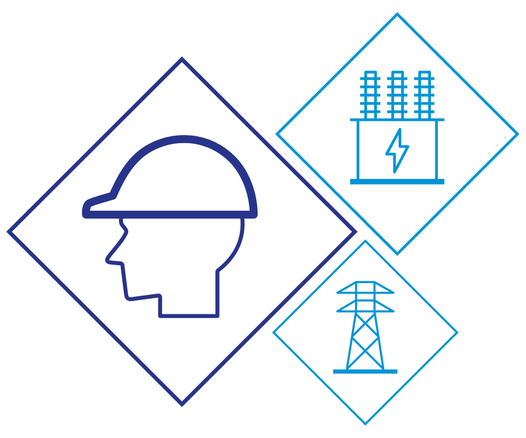
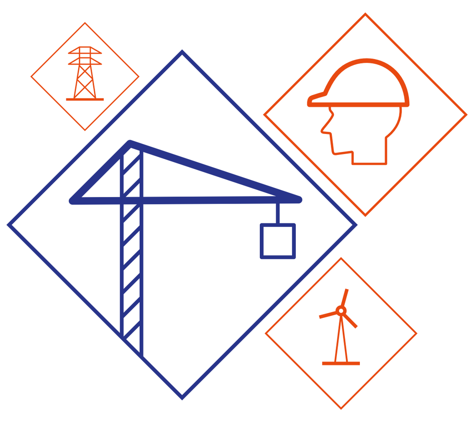
In the UK

National Grid Electricity Transmission



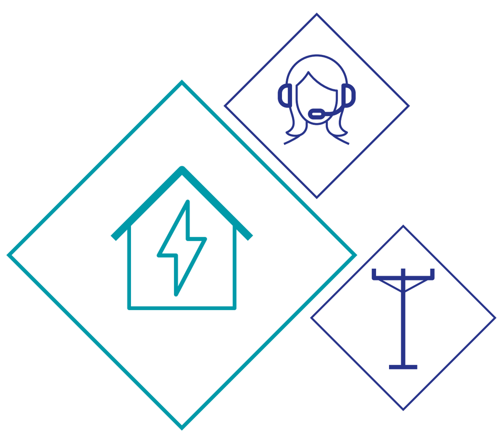
Owns and manages the high voltage electricity transmission system in England and Wales.

National Grid Strategic Infrastructure



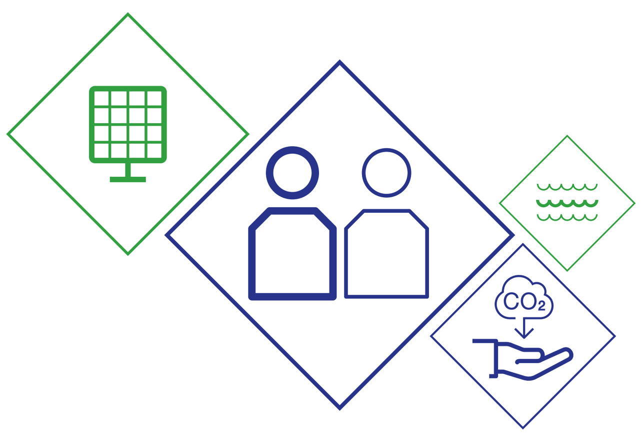
Delivers major strategic UK electricity transmission projects, focused on connecting more clean, low-carbon power to England and Wales.

National Grid Electricity Distribution



Owns and operates the electricity distribution networks for the Midlands, the South West of England and South Wales.

National Grid Ventures



Operates and invests in large scale energy projects, technologies and partnerships to help accelerate the transition to clean energy. Ventures runs separately from National Grid's core regulated operations.

The role of National Grid Electricity Transmission

We don't generate electricity. We own and maintain the high voltage transmission network in England and Wales, transporting large amounts of electricity at high voltage from where it is generated to where it is needed. Local network operators then deliver it at lower voltages to individual homes and businesses.

National Grid Electricity Transmission (NGET)'s Strategic Infrastructure delivery unit is developing the proposals for Weston Marsh to East Leicestershire. It must, under the Electricity Act 1989, do so in an efficient, coordinated, and economical way which also considers people, places and the environment.

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The Great Grid Upgrade

The Great Grid Upgrade is the largest overhaul of the Grid in generations. It will strengthen the grid for years to come, facilitating the transition to a clean and affordable energy future.

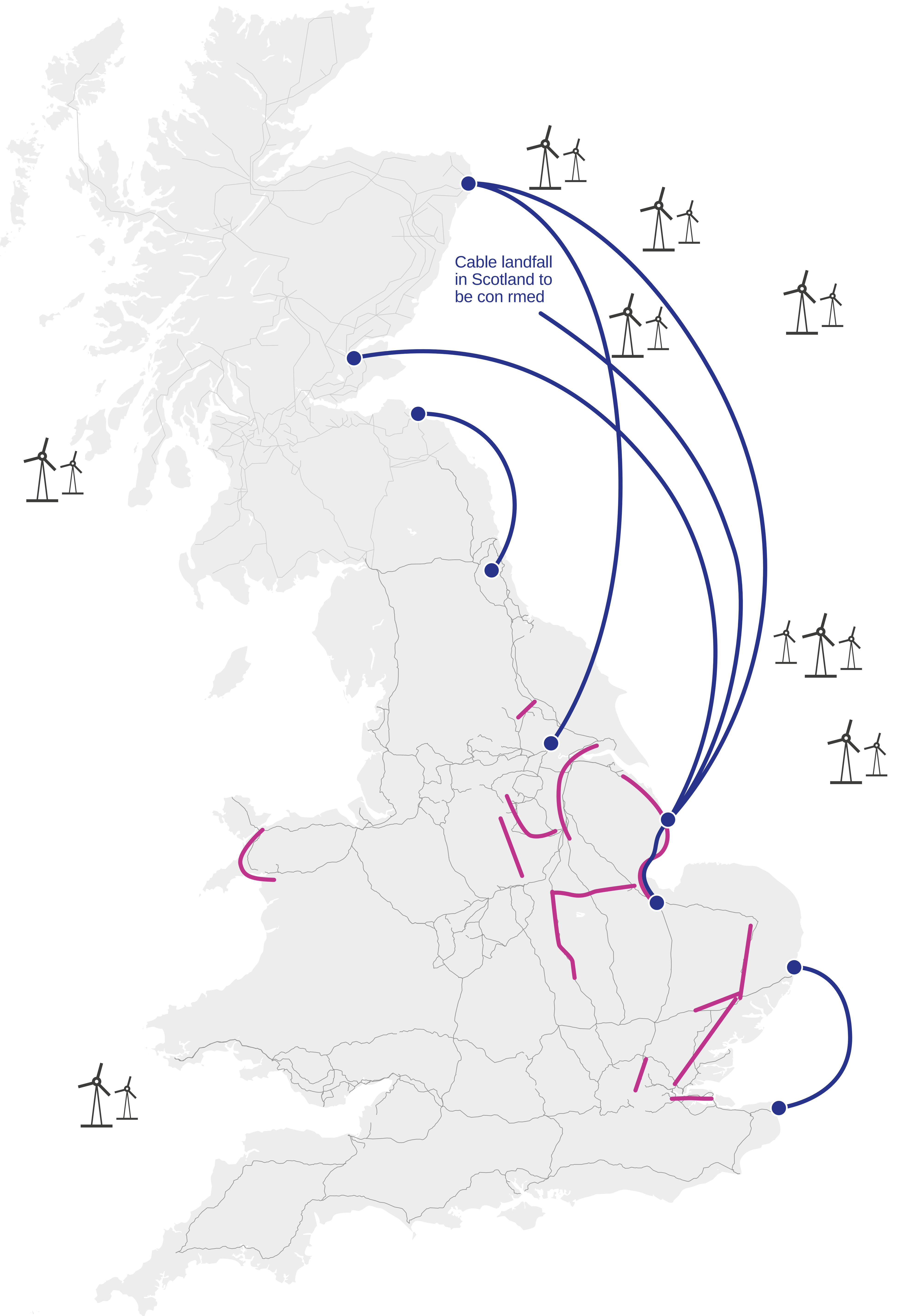
As we transition to clean home grown energy, we need to build new infrastructure as well as upgrading the existing grid, to bring this power from where it's generated to where it's needed in homes and businesses.

A grid that's fit for the future

Investment close to home

More clean energy for all

Energy security



Map of existing high voltage electricity transmission network and projects proposed as part of The Great Grid Upgrade

Key

- Onshore lines
- Subsea cables
- Existing Scottish 400 kV transmission lines
- Existing English and Welsh 400 kV transmission lines

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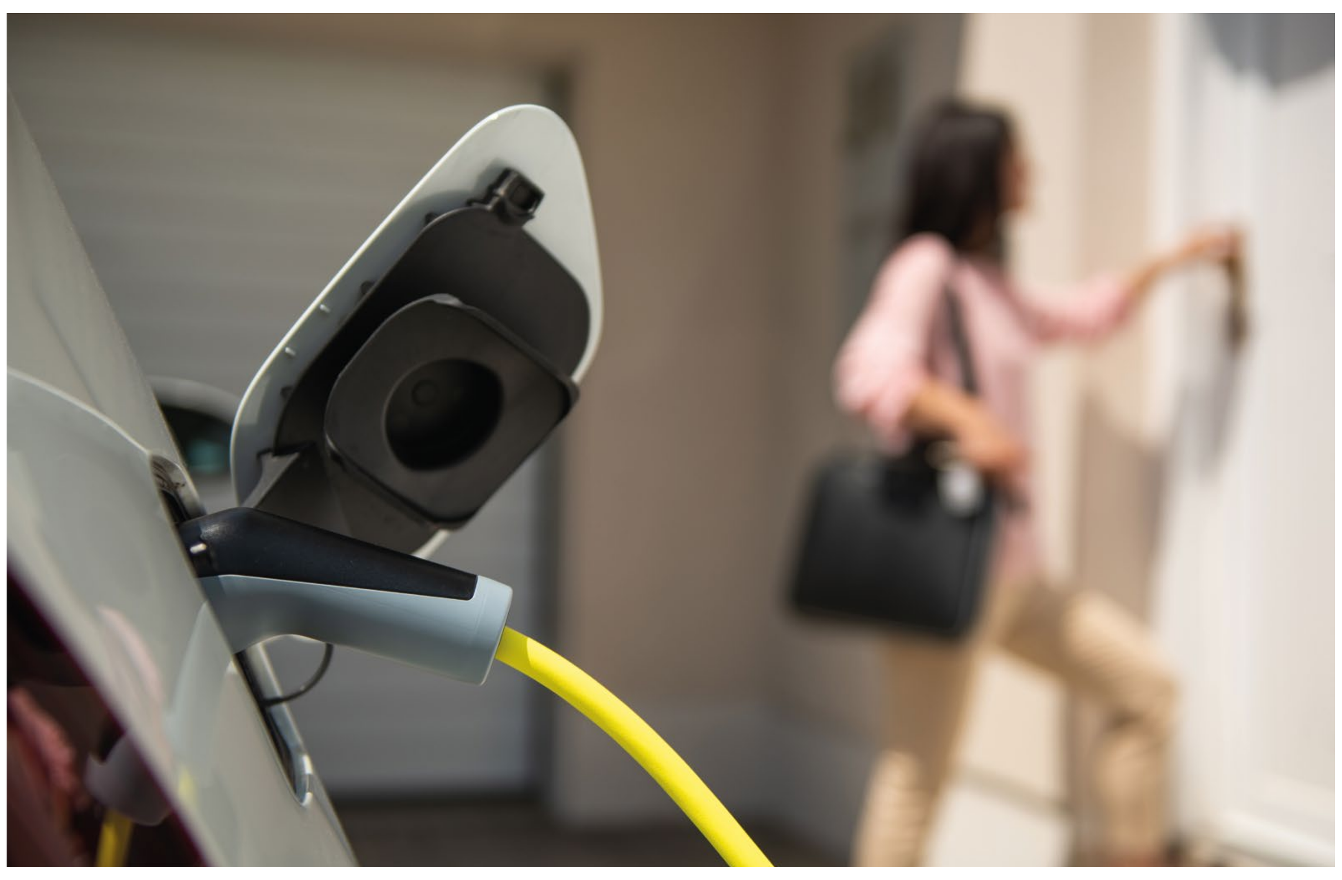
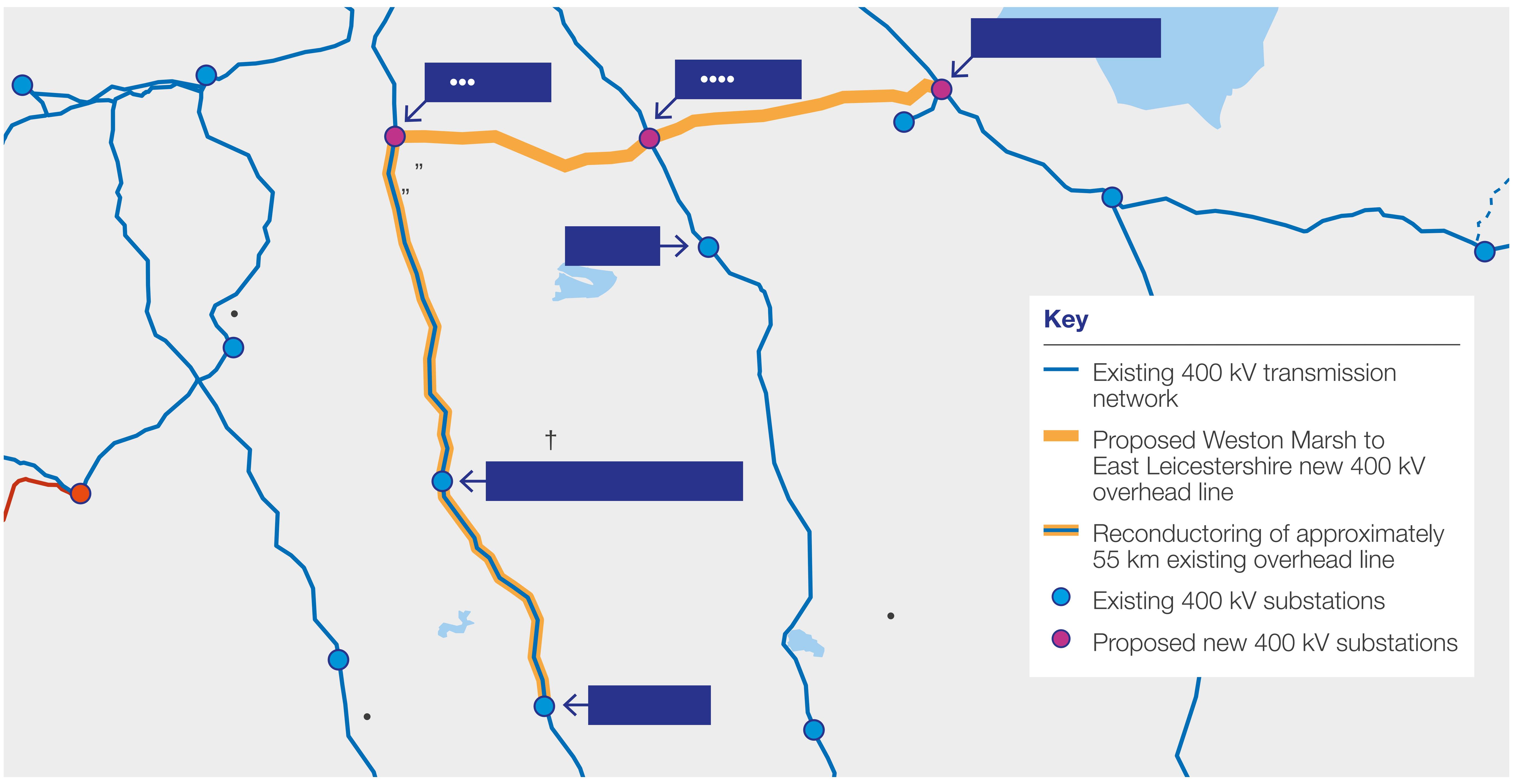
Why we need Weston Marsh to East Leicestershire

Demand for electricity is forecast to increase and more electricity is being generated off the coast of Scotland and England.

We need to make sure the Grid has the capacity to securely connect and transport these new home-grown sources of energy.

Weston Marsh to East Leicestershire will connect to home-grown, more affordable sources of power, helping deliver energy security and meet rising demand for electricity.





The DCO process

Weston Marsh to East Leicestershire is a project of national significance. These types of projects require a special type of planning consent in order to be built, known as a Development Consent Order (DCO).

Consultation is an important part of the process as it allows everyone to comment. Feedback from consultation – along with the outcome of technical assessments and environmental surveys – helps us to develop our proposals before submitting a DCO application.

The Great Grid Upgrade

Weston Marsh to East Leicestershire

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About Weston Marsh to East Leicestershire

We are proposing to upgrade the electricity transmission network between Lincolnshire and the East Midlands. A new overhead line would transport enough home-grown electricity for up to six million homes. The proposals include:

- approximately 60 km of new 400,000 volt (400 kV) overhead line from Weston Marsh substation(s) in Lincolnshire to East Leicestershire;
- two new proposed substations, one near Corby Glen in Lincolnshire (known as WMEL-A) and one near Wartnaby in Leicestershire (known as WMEL-B); and
- upgrading (reconductoring) approximately 55 km of existing 400 kV overhead line from the proposed new substation near Wartnaby to the existing Grendon substation, east of Northampton.

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Key

- Emerging preferred corridor
- Emerging preferred location of new WMEL–A and B substations
- Existing 400 kV overhead line
- Reconductoring of existing 400 kV overhead line

Our proposed new overhead line and reconductoring have been split into five route sections each, to make it easier for people to give feedback about any particular areas they may wish to comment on.

New overhead line and substations

We have identified an area of land where the new overhead line and two new substations could be located. We call this area the ‘emerging preferred corridor’.

Within the emerging preferred corridor we are presenting a ‘graduated swathe’. The shaded area of land is darker where we feel it is more likely for physical infrastructure to be located and lighter where it is less likely.

Reconductoring

Reconductoring involves replacing pylon fittings and upgrading the conductors (the wires strung between pylons). It increases the amount of electricity that can be transmitted over the existing lines by using more efficient conductors that generally operate at higher temperatures and carry more power.

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Weston Marsh to East Leicestershire

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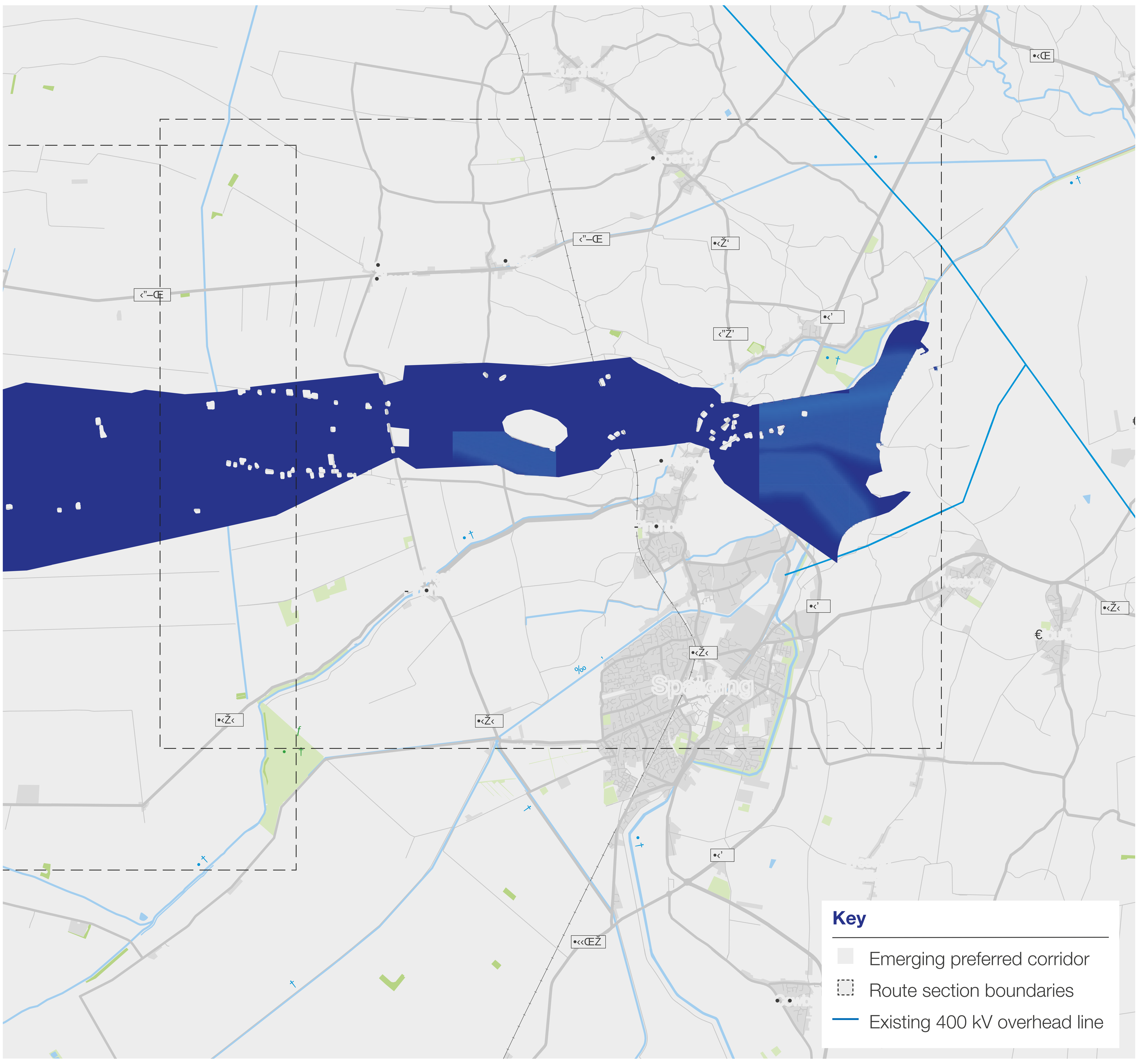
Route section 1: Weston Marsh – South Forty Foot Drain

This section of the emerging preferred corridor runs from the connection point at the Weston Marsh substation(s) (part of the separate Grimsby to Walpole project) to a point immediately west of South Forty Foot Drain.

The new overhead line would route west out of Weston Marsh substation(s) crossing the River Welland and the A16. The line would then continue to the west and need to pass through the narrow area between Pinchbeck and Surfleet. We are considering two options for the alignment – either to the north or the south of the homes in the area.

The overhead line would then route directly west, crossing a rail line, avoiding farms to the north and south before passing north of the moated site of Newhall Grange, a scheduled monument. It would then travel onward to South Forty Foot Drain, passing between properties located along Parsons Drove and Starlode Drove.



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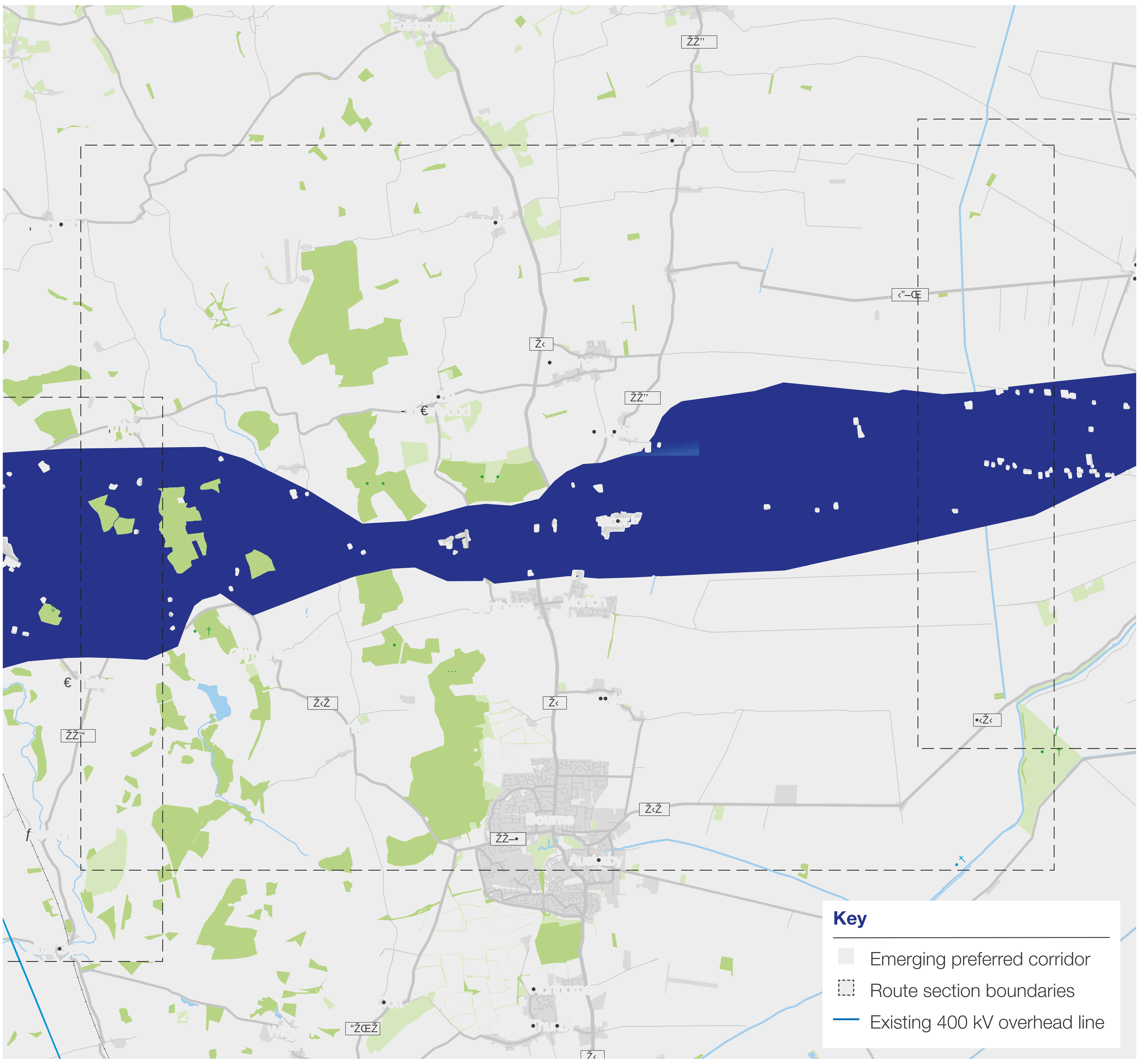
Route section 2: South Forty Foot Drain – Irnham

This section of the emerging preferred corridor runs from the area immediately west of South Forty Foot Drain to a point south of Irnham and north of Grimsthorpe Castle.

The overhead line would need to pass through a narrow gap to the west of Stainfield between two wooded areas. To the east of this, the alignment could pass to the north or south of Haconby and Stainfield, and would cross the A15 in both options. These alignment approach options are reflected in the preferred corridor.

From here the overhead line is constrained by ancient woodland to the north and Grimsthorpe Castle to the south. There are then two options for the overhead line – either to the north or south of Haconby and Stainfield – to reduce potential impacts on the setting of the castle and to avoid the ancient woodland.



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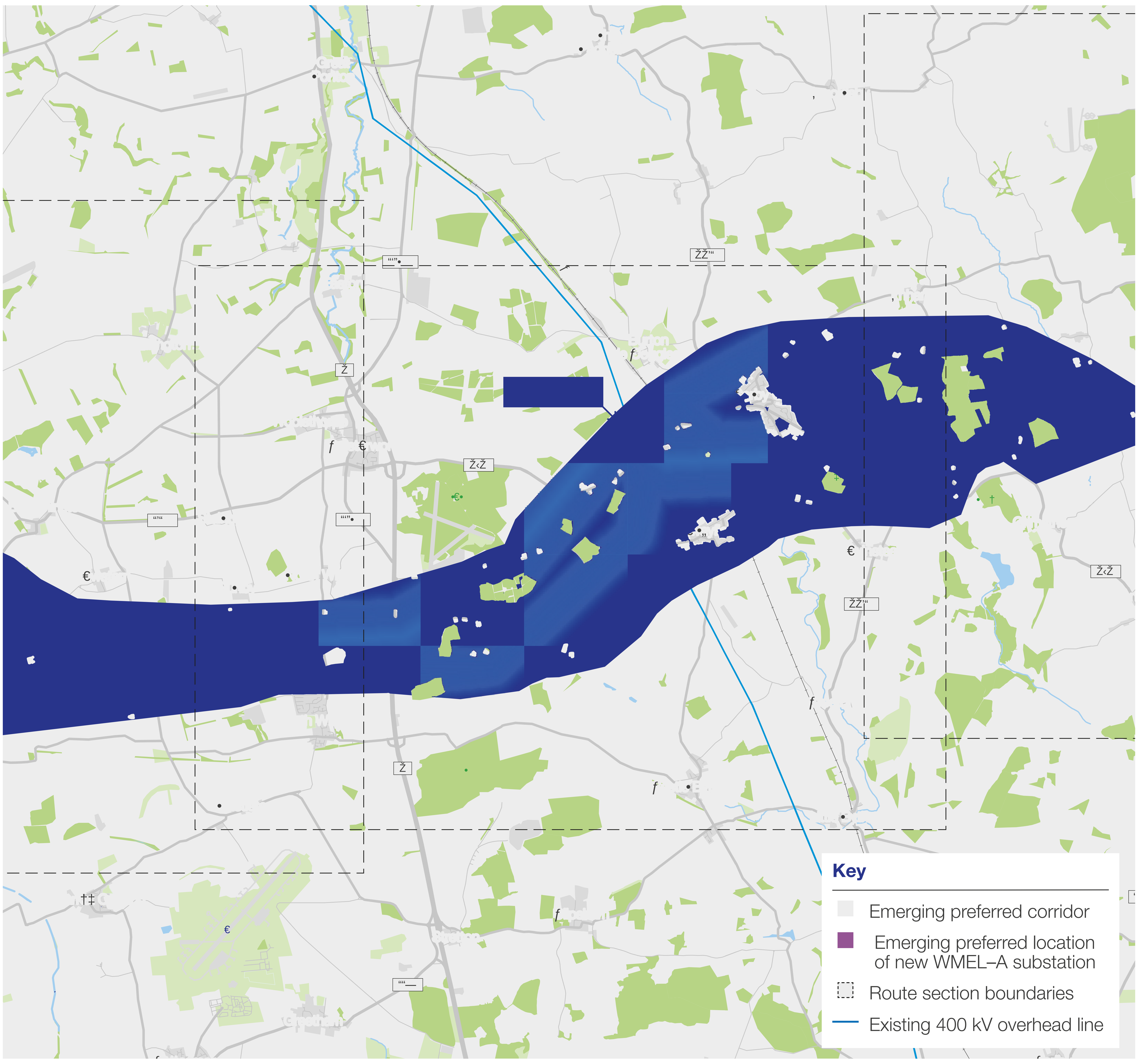
Route section 3: Irnham – North and South Witham

This section of the emerging preferred corridor runs from the area immediately west of a point between Irnham and Grimsthorpe Castle to a point between North and South Witham.

Routeing directly west, the overhead line would likely pass to the south of Corby Glen, crossing the East Coast Main Line railway north of Swayfield before crossing the existing 400 kV overhead line. This is the area where we are proposing to locate the new WMEL–A substation.

With the current preferred substation location to the west of Corby Glen, the new overhead line could enter and exit the proposed substation using a north or south arrangement. The emerging preferred corridor remains wide to allow for flexibility regarding how the new overhead line would connect into the substation.

The new overhead line would continue west from between North and South Witham to either the north or south of a scheduled monument, the remains of a Knights Templar preceptory, with route options converging to the single line north of Wymondham.



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Weston Marsh to East Leicestershire

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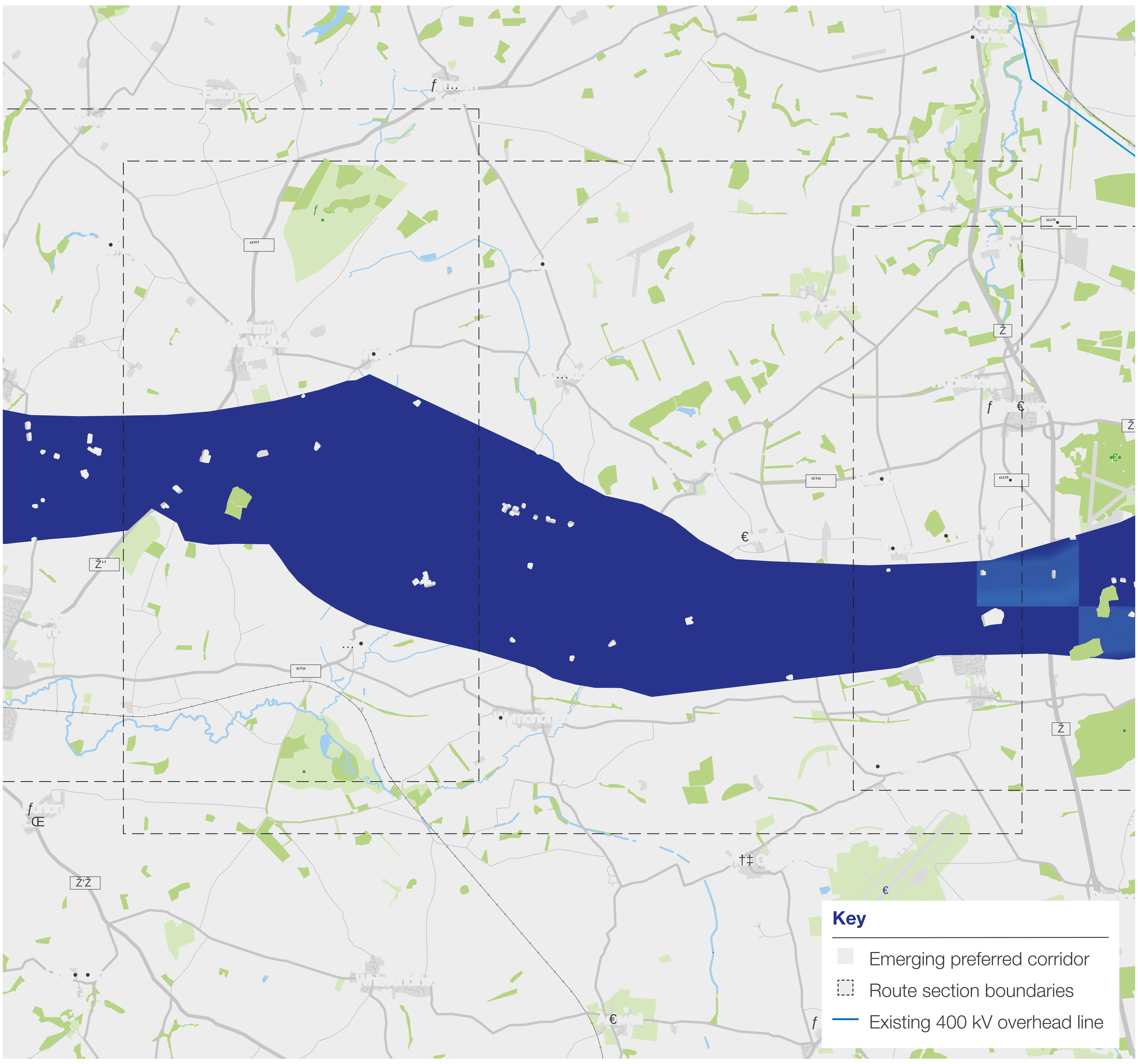
Route section 4: North and South Witham – A607

This section of the emerging preferred corridor runs from a point between North and South Witham to the A607, south of Waltham on the Wolds.

The new overhead line would continue west from between North and South Witham to either the north or south of scheduled monument, The Remains of Knights Templar preceptory, through a relatively unconstrained area with route options converging to the single line north of Wymondham.

Then routeing northwest, the overhead line would pass either north or south of Garthorpe and cross the B676.

The route would then continue west, crossing the A607 at one of two possible locations south of Waltham on the Wolds and north of Melton Mowbray Golf Club.



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