

# The Great Grid Upgrade

Chesterfield to Willington

**nationalgrid**

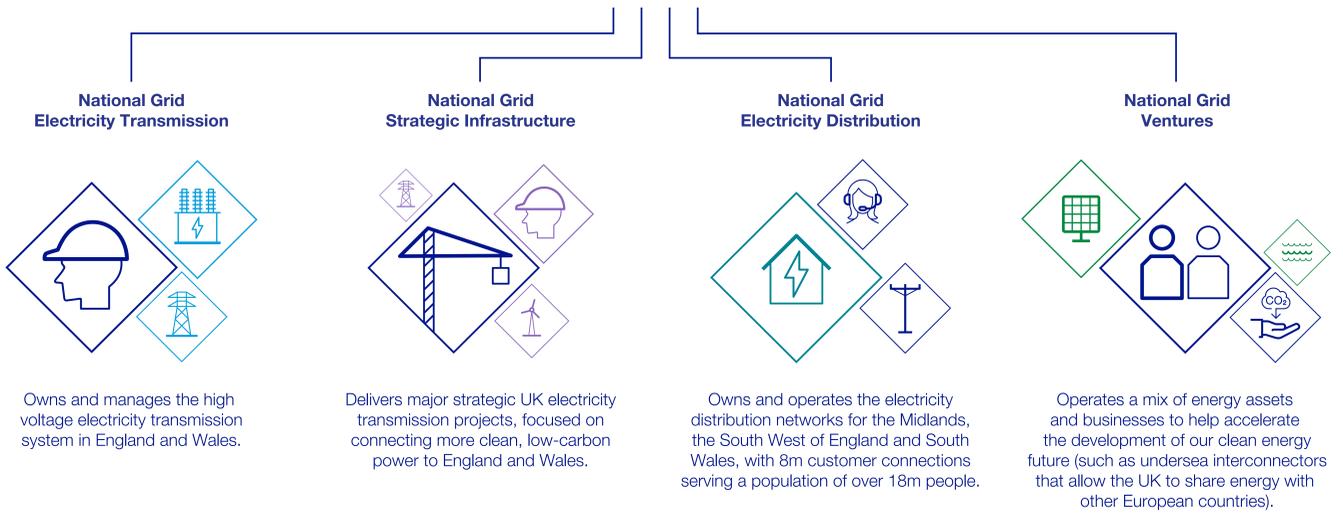
# About National Grid

**National Grid Electricity Transmission (NGET) sits at the heart of Britain's energy system, connecting millions of people and businesses to the energy they use every day. Every time a phone is plugged in, or a switch is turned on, we've played a part, connecting you to the electricity you need.**

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

**nationalgrid**

In the UK



## National Grid group of business areas



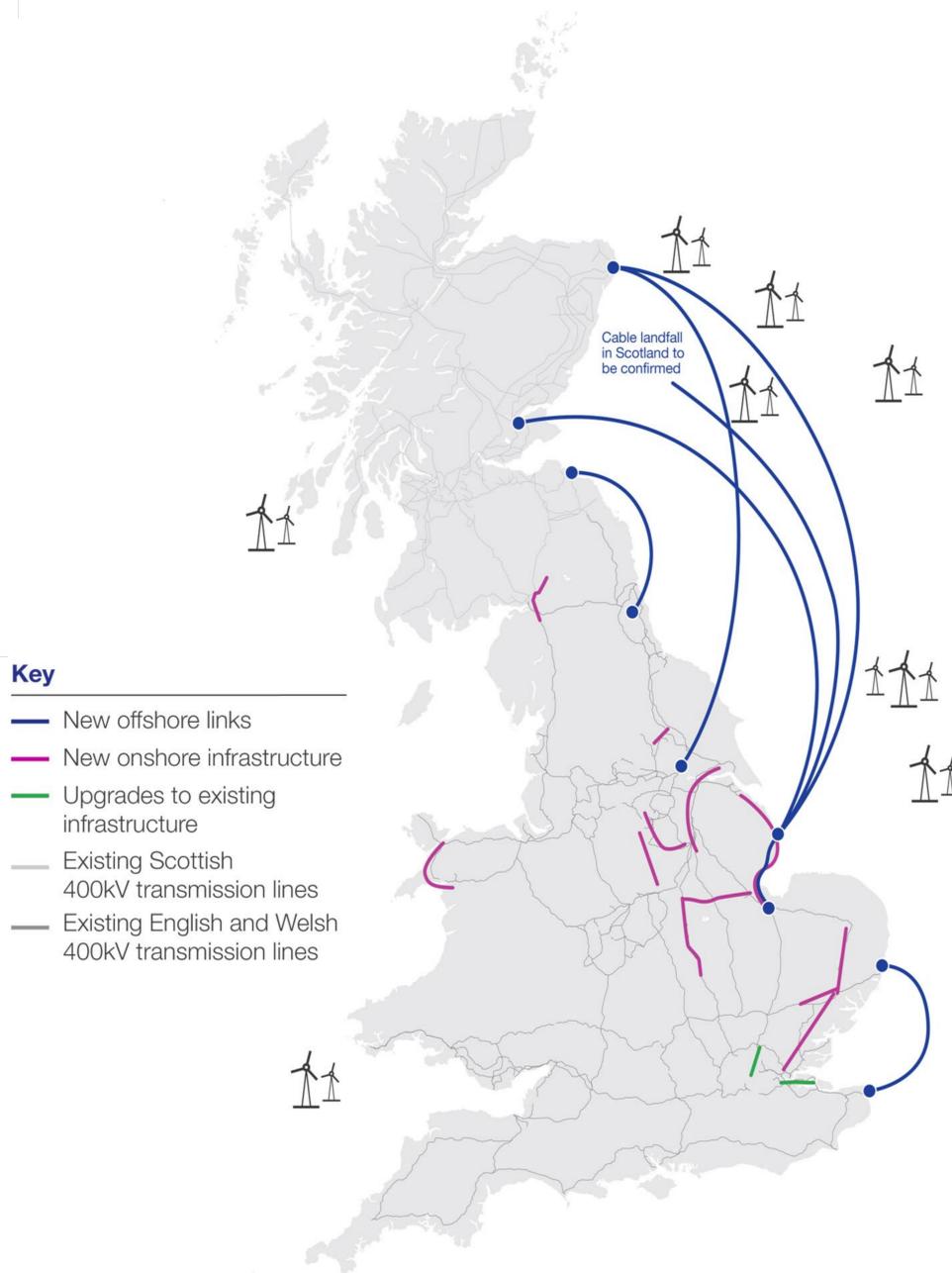
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# What is The Great Grid Upgrade?



The way we generate electricity has changed and is continuing to change. Demand for electricity is set to double by 2050 as the way we power our homes, businesses, industry and transport changes. We need to upgrade the grid now to ensure we can meet this increase in demand.

The Great Grid Upgrade is the largest upgrade of the electricity network in England and Wales in generations.



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

### The Great Grid Upgrade will:



Connect clean energy that is produced here in the UK, making our energy supply more self-sufficient and less reliant on imports.



Support over 55,000 additional UK jobs by the end of the decade and contribute £14.5bn a year to the UK economy

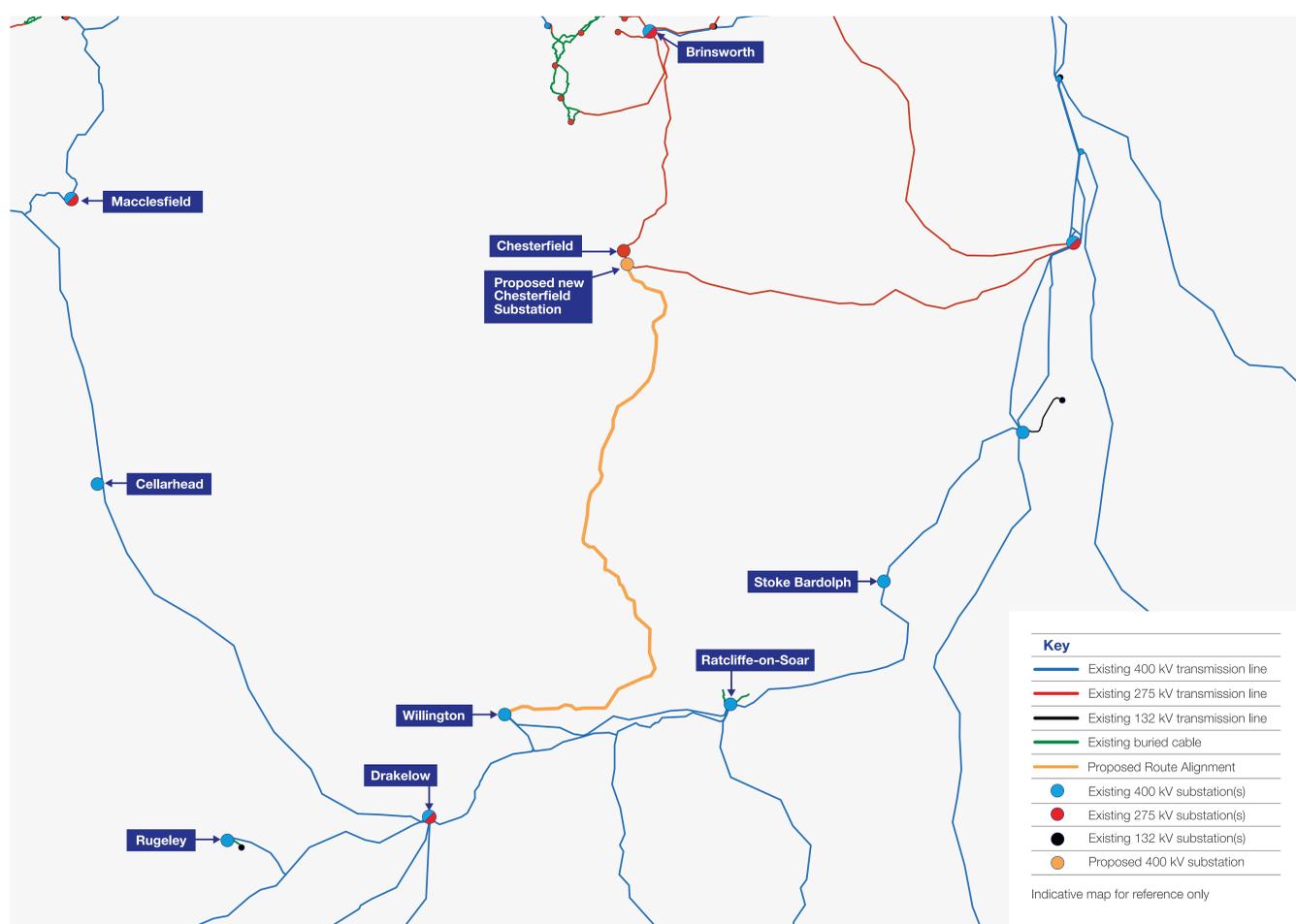


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# The need

**The existing network in the East Midlands region does not have the capacity to deliver the required amount of electricity to where it is needed.**

Chesterfield to Willington would play an important role in transporting more secure, cleaner, home-grown energy from more affordable sources – generated off the coast of Britain – to around two million homes in the Midlands and beyond.



The regional transmission network

### Why does the network in this region need upgrading?

Small-scale change isn't enough

The way that we generate electricity is changing

Demand for energy is rising

To make our energy supply more self sufficient



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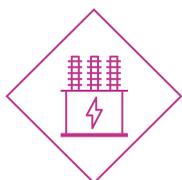
# Our proposals

**We are proposing a new high-voltage electricity transmission line between Chesterfield and Willington.**

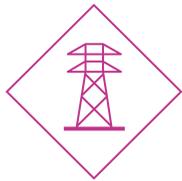
**Our proposals for Chesterfield to Willington include:**



a new 400 kV overhead line, approximately 60 kilometres in length between a new substation in the Chesterfield area and the existing Willington Substation;



a new 400 kV substation at Chesterfield, to be built in the vicinity of the existing 275 kV Chesterfield Substation and the existing 132 kV National Grid Electricity Distribution (NGED) substation to the south east of Chesterfield (referred to as the 'new Chesterfield Substation');



replacement of short sections of existing overhead line and local changes to the lower voltage distribution network to facilitate the construction of the Project; and

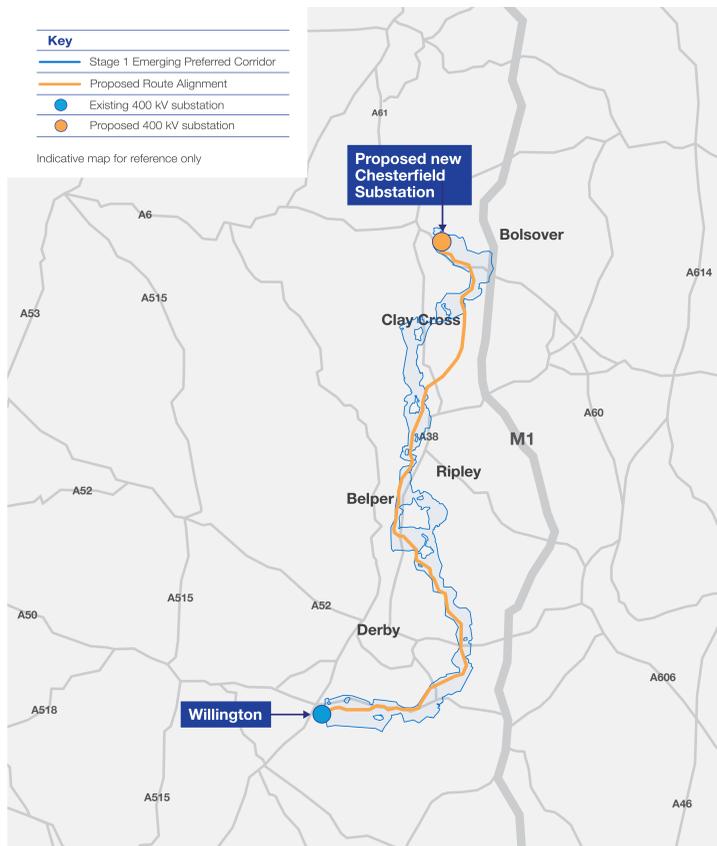


other works needed for construction, such as temporary access roads, highway improvements, construction work compounds, ancillary works, utility diversions and drainage. Land would also be required for environmental mitigation and enhancement, which would deliver an overall Biodiversity Net Gain (BNG), an approach to development that leaves habitats in a better state than before.

### What has changed since Stage 1 consultation?

Since Stage 1, we have carefully reviewed feedback from local communities and stakeholders, along with further technical and environmental assessments.

As a result, we have updated our proposals for Stage 2, including a more defined overhead line route (known as the **Proposed Route Alignment**), an alternative route between Astwith and Alfreton that **avoids sensitive areas** like the River Amber valley and designated sites, and proposals for a **new substation at Chesterfield**.



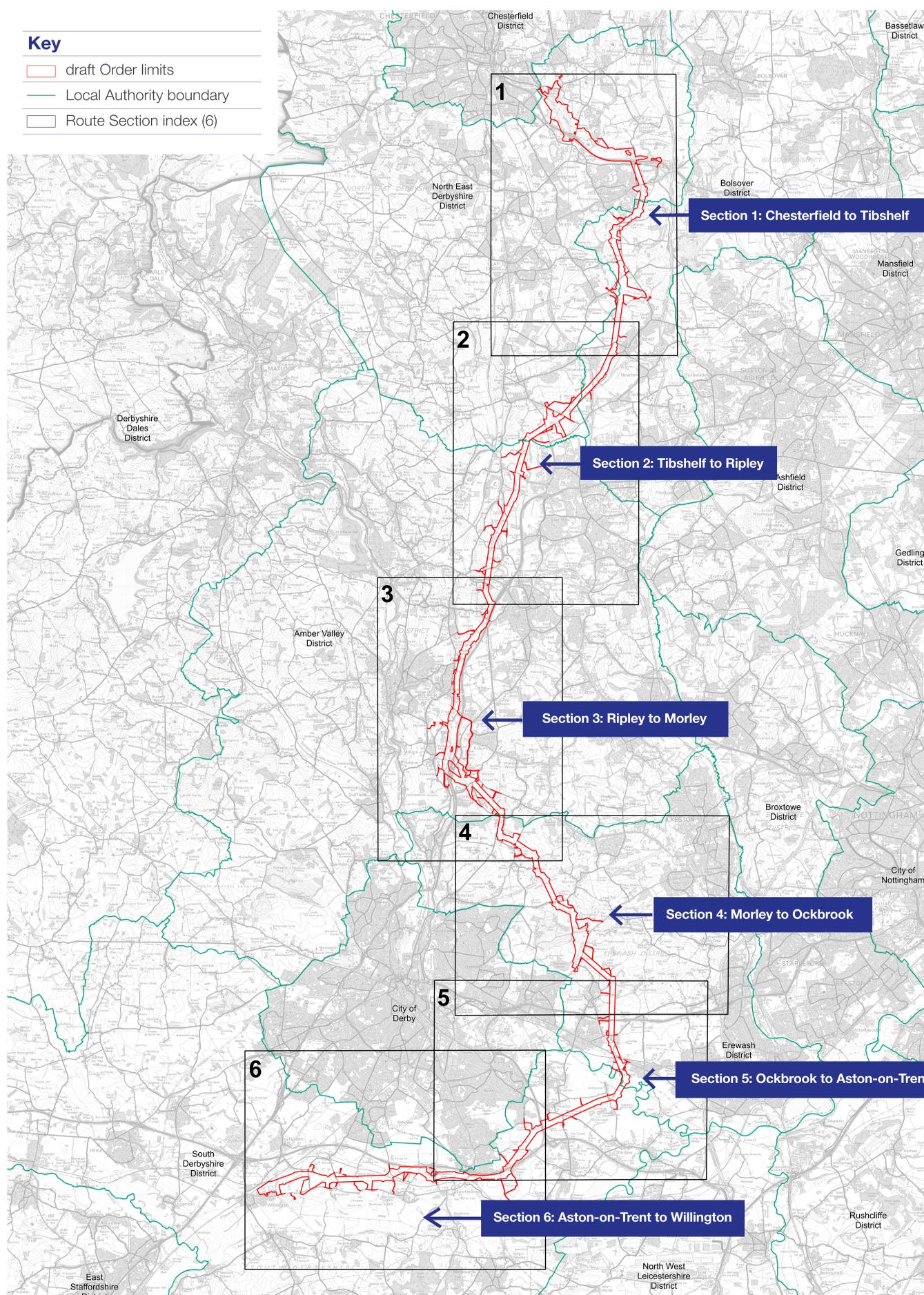
**The Stage 2 Proposed Route Alignment against the Stage 1 Emerging Preferred Corridor**



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# Project map

For Stage 2 consultation, the proposed route is divided into six sections, making it easier to view and provide feedback on areas of particular interest.



Master Key Plan



### What are draft Order limits?

These are the proposed boundaries within which all elements of the Project – including construction, operation and associated works – may take place.

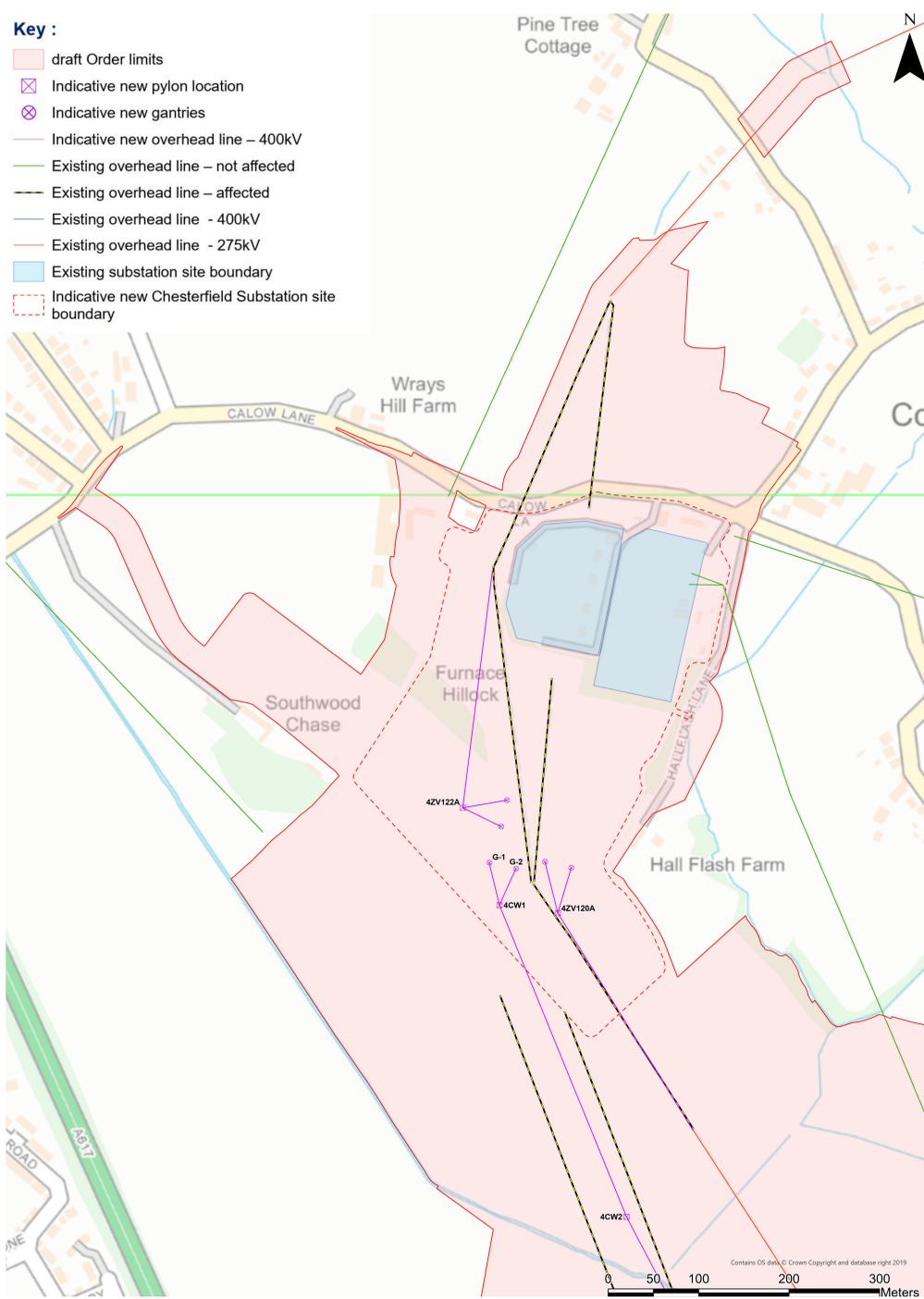


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# New Chesterfield Substation

**As part of Route Section 1, we are now including proposals for a new Chesterfield Substation located next to the existing National Grid Electricity Transmission substation at Calow.**

At present, the new Chesterfield Substation is expected to be delivered through a separate National Grid project (Chesterfield to High Marnham). However, it is possible it could be included in this Project's DCO application using land we already own and minimising visual impacts. This approach allows National Grid to demonstrate that the Project can be delivered and that it can connect to the national electricity transmission network.



**New Chesterfield Substation**



**Indicative CGI of new 400kV Gas Insulated Switchgear (GIS) substation design**



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# Route Section 1: Chesterfield to Tibshelf

**Route Section 1 starts to the south east of Chesterfield, where the new Chesterfield Substation would be located.**

From here, the Proposed Route Alignment heads south east, travelling from the west of Hassocky Lane towards Heath, before turning south. It then continues through Stainsby, Astwith and Hardstoft, before ending near Tibshelf.

This section would require the undergrounding and re-routeing of various existing 132 kV overhead lines where they intersect the proposed route, and adjustments to other lower voltage wood pole overhead lines.

## Changes outside the Stage 1 corridor

We are now presenting an alternative route outside the corridor presented at Stage 1. This would run between Astwith and Tibshelf and beyond to Oakerthorpe. This is in response to further technical studies and Stage 1 feedback which expressed local concerns about the landscape and access, particularly around the River Amber valley, and to reduce impacts on the natural environment, views and the wider landscape.



Route Section 1: Chesterfield to Tibshelf



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# Route Section 2: Tibshelf to Ripley

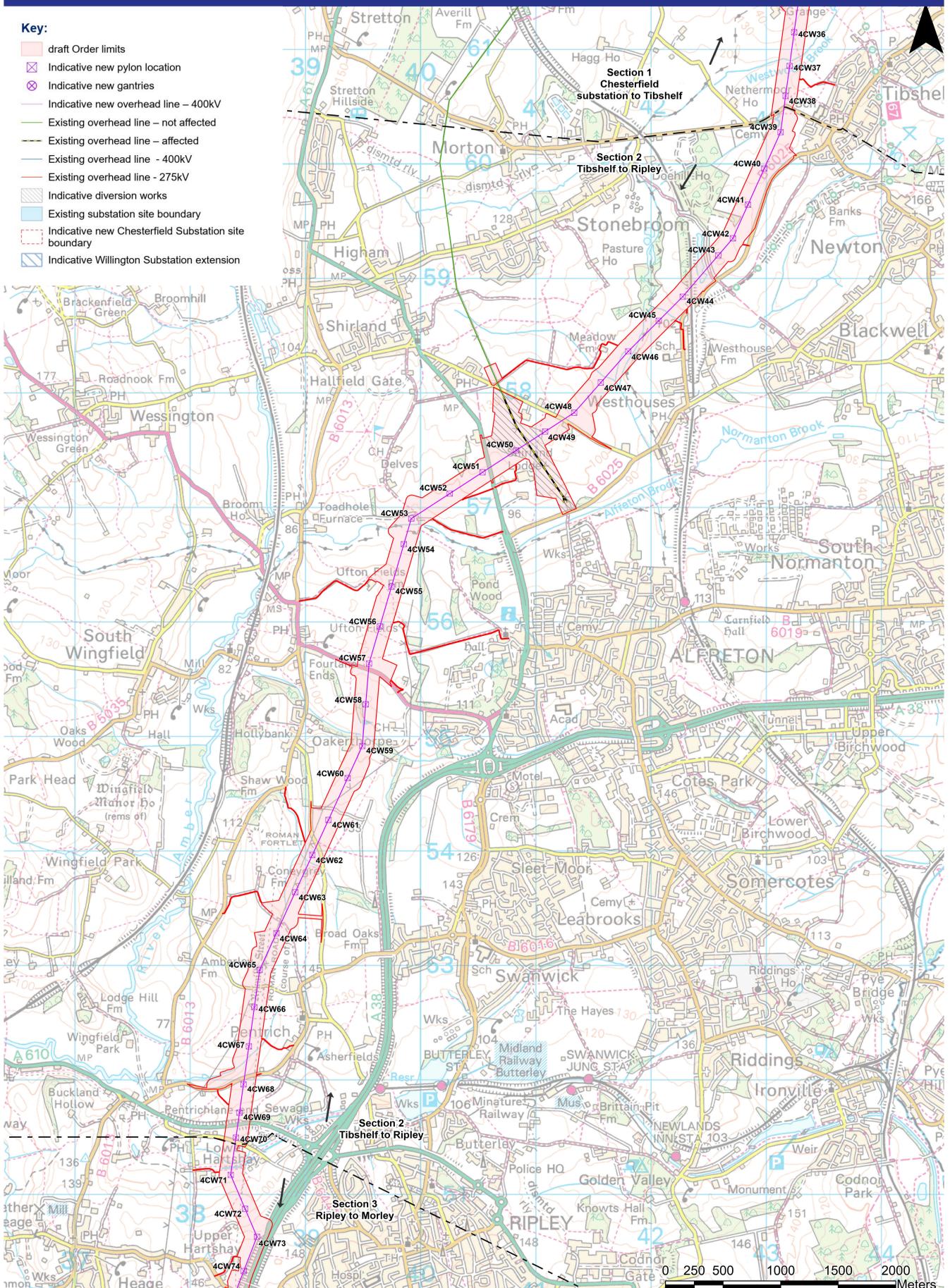
**Route Section 2 begins at Doe Hill Lane (B6014), to the west of Tibshelf, and heads south west towards Alfreton.**

From there, it continues south, broadly following the direction of the A38 past Pentrich, before ending at Lower Hartshay, just south of the A610.

This section would require the undergrounding and re-routing of part of an existing 132 kV overhead line (from Chesterfield to Alfreton), where it would cross the new line near the Alfreton Substation, and adjustments to other lower voltage wood pole overhead lines.

## Changes outside the Stage 1 corridor

We are now presenting an alternative route outside the corridor presented at Stage 1 that avoids most of the River Amber valley. In Route Section 2 this is between Tibshelf and Oakerthorpe. This is in response to further technical studies and Stage 1 feedback which expressed local concerns about the landscape and access, particularly around the River Amber valley, and to reduce impacts on the natural environment, views and the wider landscape.



Route Section 2: Tibshelf to Ripley



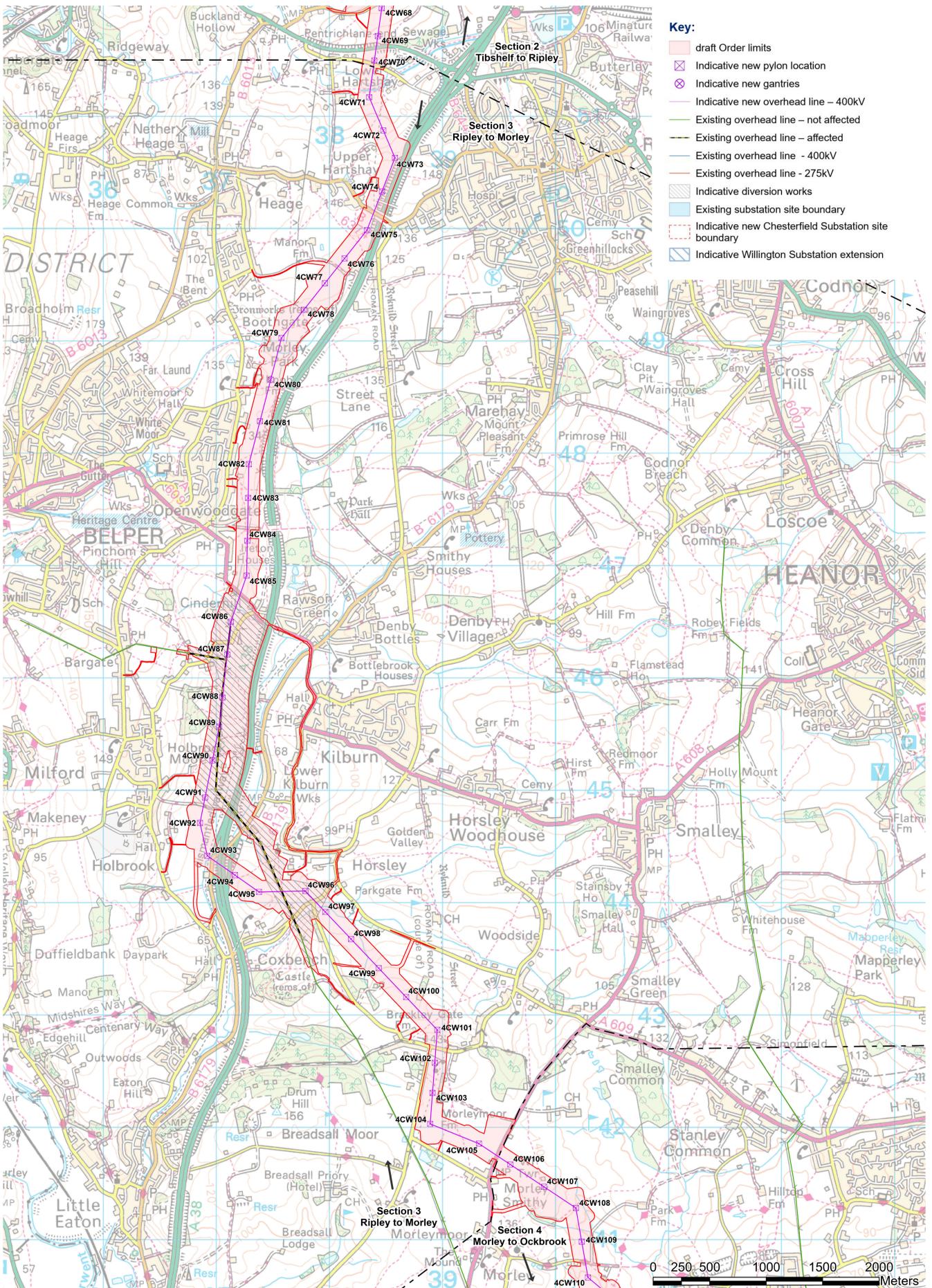
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# Route Section 3: Ripley to Morley

**Route Section 3 runs from the west of Ripley south to Morley. From near the A610 at Lower Hartshay, the Proposed Route Alignment heads south, largely following the western side of the A38 corridor.**

It passes the communities of Cinderhill, Holbrook and Kilburn, before crossing the A38 between Horsley and Coxbench and continuing on to Morley.

This section would require the undergrounding and re-routing of a section of the existing Belper to Spondon 33 kV overhead line and adjustments to other lower voltage wood pole overhead lines.



Route Section 3: Ripley to Morley

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# Route Section 4: Morley to Ockbrook

**Route Section 4 runs between Morley to Ockbrook. The Proposed Route Alignment begins to the north east of Morley Smithy, where the route crosses the A608, before continuing south east.**

The route then passes to the south west of Stanley and curves around Locko Park. From there, it continues south to the A6096 (Dale Road), before turning south west and passing around the north east side of Ockbrook.

This section would require the undergrounding and re-routing of an existing 132 kV overhead line where it intersects the proposed route, and adjustments to other lower voltage wood pole overhead lines.



Route Section 4: Morley to Ockbrook

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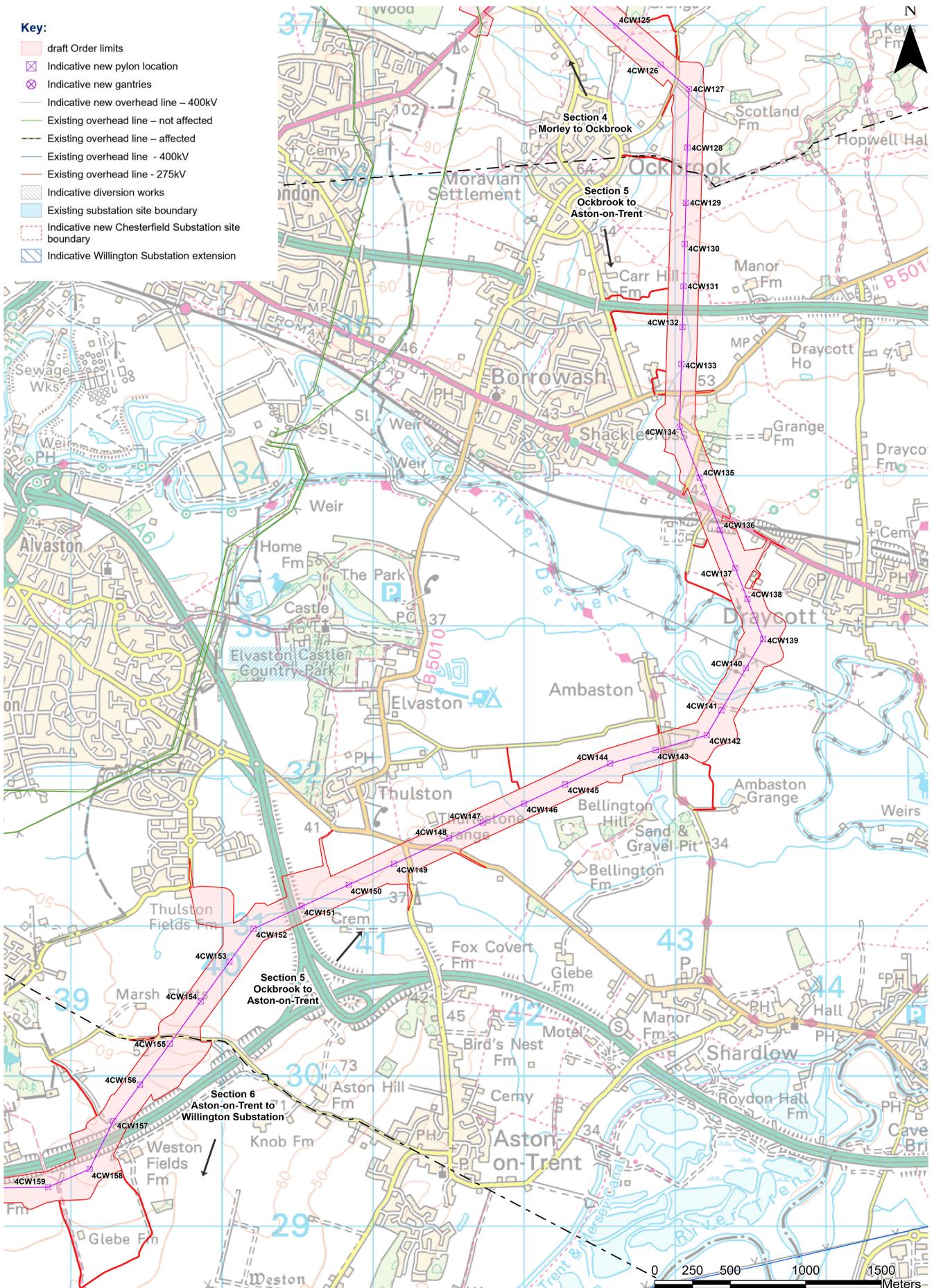
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# Route Section 5: Ockbrook to Aston-on-Trent

**Route Section 5 continues from the south east of Ockbrook and travels generally south.**

After crossing the A52 (Brian Clough Way), the Proposed Route Alignment continues south across the A6005 and the Derby to Nottingham railway line between Borrowwash and Draycott. It then crosses the River Derwent and curves eastwards around Ambaston and Elvaston, before turning south west to avoid passing directly through these settlements. The route then continues south west between Thulston and the Trent Valley Crematorium, before crossing the A6 Derby Spur near Junction 2 of the A50 and following the A50 towards Chellaston.

This section would require adjustments to other lower voltage wood pole overhead lines where they intersect the proposed route.



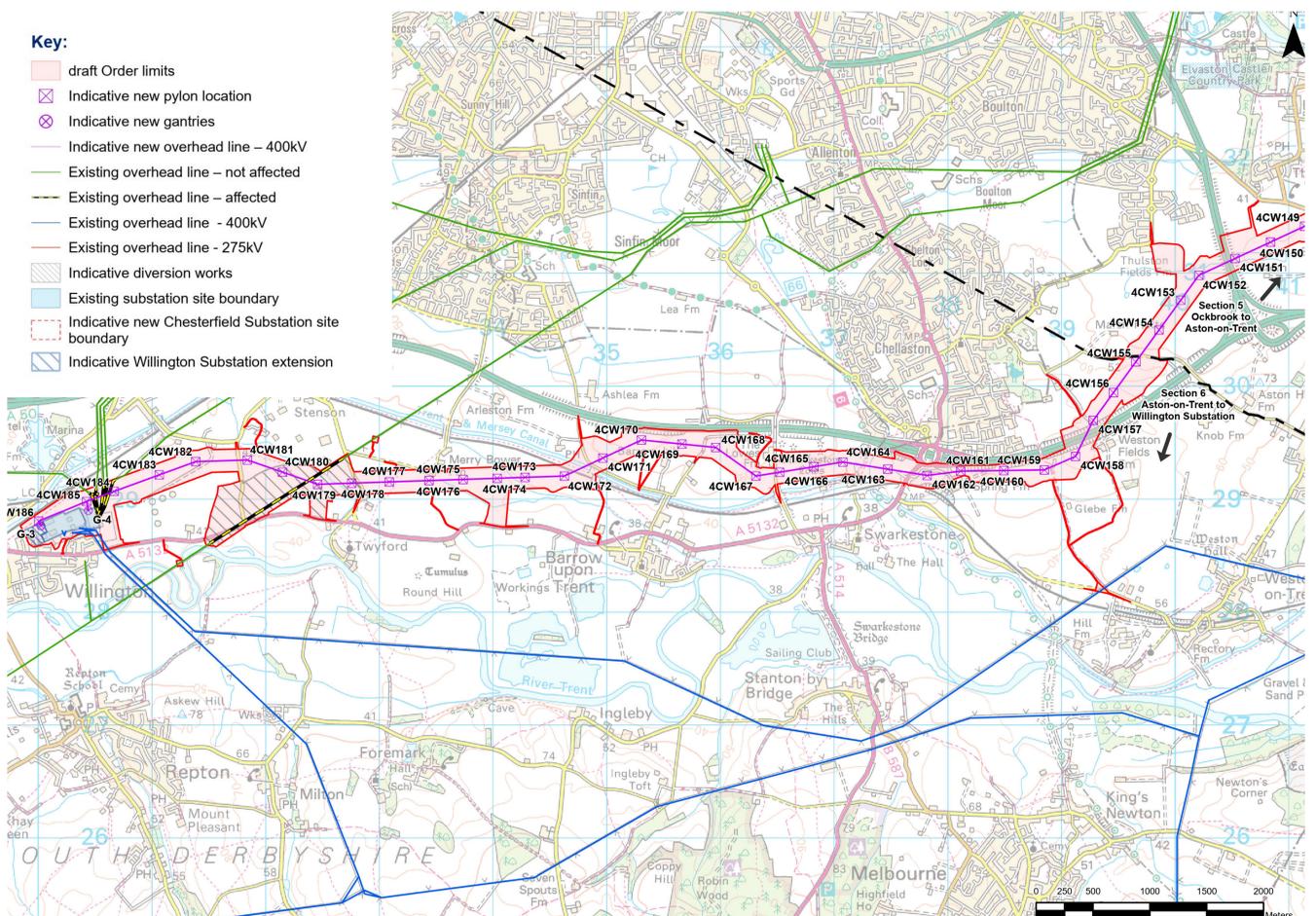
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# Route Section 6: Aston-on-Trent to Willington

**Route Section 6 is the final part of the route and runs from Aston-on-Trent to Willington Substation. The Proposed Route Alignment begins to north west of Aston-on-Trent and heads south west.**

After crossing the A50, it runs parallel to the Castle Donington railway line, remaining to the south of the A50, before crossing the Trent and Mersey Canal and the railway line just north of Barrow upon Trent. From here, the route continues broadly alongside the A5132 (Twyford Road) before entering Willington Substation from the north east.

This section would require the undergrounding and re-routing of various existing 132 kV overhead lines where they intersect the proposed route, and adjustments to other lower voltage wood pole overhead lines.



Route Section 6: Aston-on-Trent to Willington

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# Construction

**Should consent for Chesterfield to Willington be granted, we expect to start construction in 2029, with the Project becoming fully operational in 2031.**

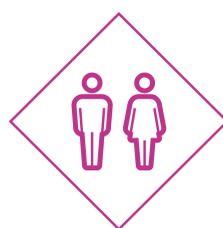
The construction phase would involve a range of temporary activities, including:



Construction compounds including working areas, site offices and storage



Accesses and haul roads for construction vehicles



Public Right of Way diversions

## Managing and mitigating effects

We assess the possible environmental effects of our work using established best-practice methods. This helps identify ways we can reduce impacts and deliver Biodiversity Net Gain (BNG).



### Protecting the environment

Our environmental and technical assessments include considerations of potential effects on local communities and the environment during construction, including traffic, noise, dust, and cumulative impacts with other projects.

This work helps identify mitigation measures to avoid, reduce or mitigate potential impacts of the Project.



### Biodiversity Net Gain (BNG)

BNG is a way to ensure that the environment is left in a better state after construction than it was before the work started.

We have committed to achieve a minimum of 10% BNG for new major projects. BNG can be achieved through habitat creation and/or enhancement and may be delivered on site or off site.



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# Have your say

**Chesterfield to Willington is a project of national significance. This type of project requires a special type of planning permission to be built, known as a Development Consent Order (DCO).**

Feedback from consultations – along with the outcome of technical assessments and environmental surveys – helps us to develop our proposals before submitting a DCO application to the Planning Inspectorate.

**We welcome your thoughts on our proposals before we finalise plans and prepare our application for development consent.**

**The deadline for feedback is 11:59pm  
on Tuesday 28 April 2026.**

## How to respond



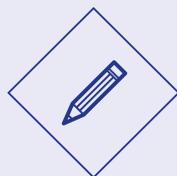
### Online feedback form

Complete our online feedback form at [nationalgrid.com/chesterfieldtowillington](https://nationalgrid.com/chesterfieldtowillington) or scan the QR code



### Email

Send feedback via email to [chesterfield-willington@nationalgrid.com](mailto:chesterfield-willington@nationalgrid.com)



### Letter

Send feedback to **FREEPOST NATIONAL GRID PROJECTS (JBP)** no stamp or further address required



### Paper feedback form

Complete a paper feedback form and return it using the Freepost address above

## Learn more about our proposals



View all consultation materials and our interactive map on our Project website [nationalgrid.com/chesterfieldtowillington](https://nationalgrid.com/chesterfieldtowillington)



Attend one of our **public information events**



Join one of our **online webinars**



Visit a **public information point** to collect consultation documents

If you require assistance with providing feedback, please email us on [chesterfield-willington@nationalgrid.com](mailto:chesterfield-willington@nationalgrid.com) or call us on freephone **0800 073 1047**. Lines are open Monday to Friday 9am–5:30pm, with an answerphone facility taking messages outside these hours.



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# What happens next

**The feedback we receive at Stage 2 consultation will help us to further refine our proposals for Chesterfield to Willington.**

All feedback received as part of this consultation will be carefully considered, alongside ongoing technical and environmental assessments.

The next steps after Stage 2 consultation are:

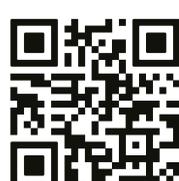
- 1. Engagement:** We will continue discussions with landowners, local elected representatives, local authorities, and other stakeholders.
- 2. Technical work:** Further technical studies and surveys will be carried out in the Project area.
- 3. Updates:** Regular updates will be provided on the Project website, [nationalgrid.com/chesterfieldtowillington](https://nationalgrid.com/chesterfieldtowillington), and by email to those who have registered to be kept informed.
- 4. Refining our plans:** We will further refine our proposals based on feedback and findings from technical and environmental surveys.
- 5. DCO application:** We will prepare our application for a DCO, which will include a **Consultation Report** detailing how we have taken account of feedback.

The Planning Inspectorate will examine our proposals and make a recommendation on the application to the Secretary of State, who will make the final decision on whether to grant consent.

## Project timeline



All timings are indicative and subject to change as the Project progresses.



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# The Great Grid Upgrade

Chesterfield to Willington

**nationalgrid**

## Supporting local communities

**We believe communities which host new electricity infrastructure should benefit from doing so. Millions of pounds will be available to benefit local communities and the wider area from projects such as this.**

Across the region, we will build partnerships and invest in skills and employment opportunities. We want to hear your views on how this funding should be spent to deliver lasting impact in your area.

Examples of activities that could be supported through community benefit funds include:



Delivering environmental enhancements



Supporting employment, education, and skills development



Promoting health and wellbeing in the community



Investing in community infrastructure and facilities

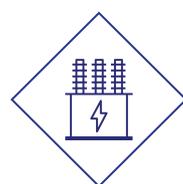


Alleviating fuel poverty and enhancing energy efficiency

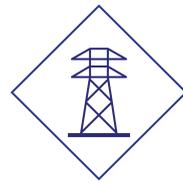


Supporting communities to decarbonise

Our approach follows government guidance published in March 2025, which sets out the types of projects that should provide benefits and the funding available. This is based on:



£530,000 for new substations, converter stations and switching stations.



£200,000 per kilometre of new overhead line. This includes changes to some existing network infrastructure.

We welcome your feedback on the issues that matter most to you. Please complete the **Community Benefit Survey** to help us better understand your views. You can collect a paper copy at this event to return to us, or complete the survey online by scanning the QR code.



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