The Great Grid Upgrade

Eastern Green Link 3 (EGL 3) and
Eastern Green Link 4 (EGL 4)

Stage 2 consultation document

May 2025

nationalgrid

About National Grid and The Great Grid Upgrade

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

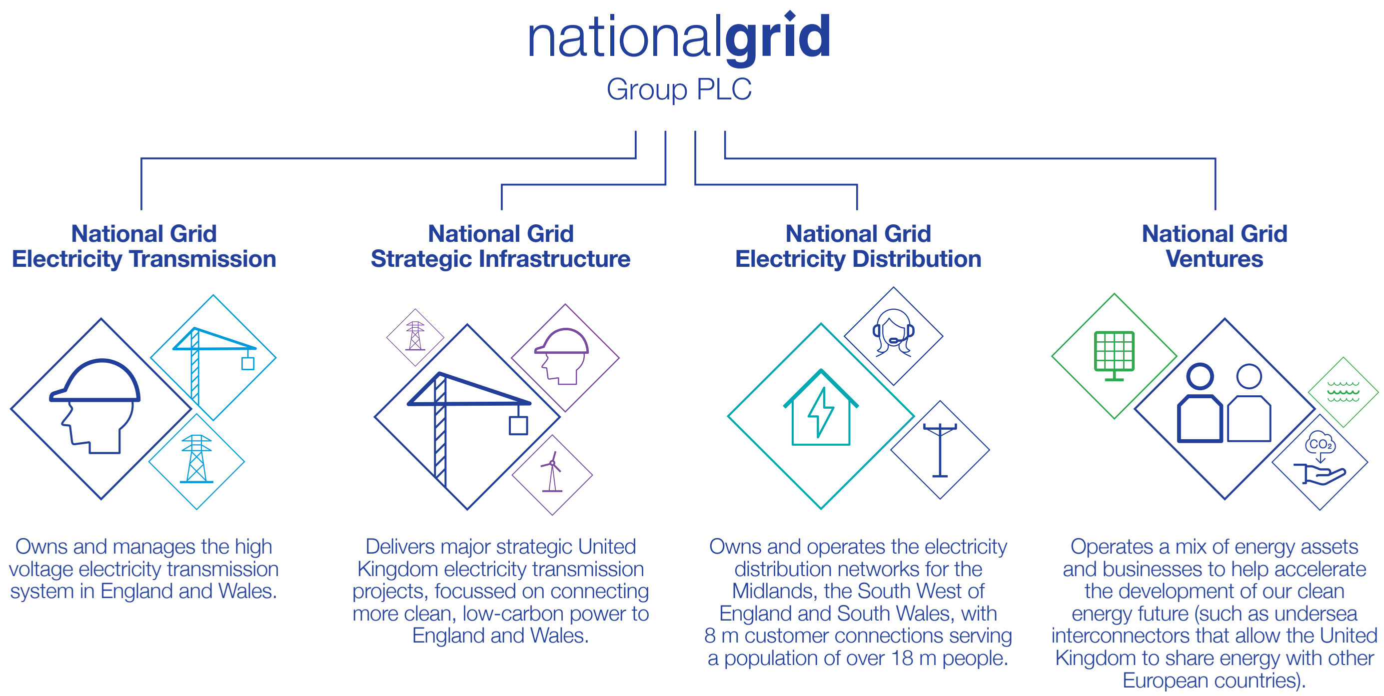


Figure 1 – Divisions of National Grid

National Grid Electricity Transmission's (NGET) Strategic Infrastructure delivery unit is developing the proposals set out in this document. It must, under the Electricity Act 1989, do so in an efficient, coordinated, and economical way which also considers people, places and the environment. We have published 10 commitments on how we go about doing this in our stakeholder, community and amenity policy[1].

NGET's role

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

To find out more about how we develop our proposals, please see our video[2] explaining how we work.

[1] National Grid's commitments when undertaking works in the UK: Our stakeholder, community and amenity policy (National Grid, December 2016) – Available at nationalgrid.com/electricity-transmission/document/81026/download
[2] National Grid Electricity Transmission, 'How we work' video players.brightcove.net/867903724001/default_default/index.html?videoId=6329276694112

Scan this QR code for more information on The Great Grid Upgrade, or visit our website at **www.nationalgrid.com/the-great-grid-upgrade**

What is The Great Grid Upgrade?

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

The existing transmission system – the infrastructure including pylons, overhead lines and underground cables which transports electricity around the country – was largely built in the 1960s. It was not designed to transport electricity from where it is increasingly being generated today – offshore wind and from other low carbon sources generated in Britain.

Electricity demand in Britain is forecast to at least double by 2050, increasing the amount of energy we need to transport to homes, businesses and public services.

New transmission infrastructure is needed to meet Government targets for connecting renewables, including up to 50 GW of offshore wind, enough to power every home in the country, helping reduce our dependency as a country on fossil-fuels[3].

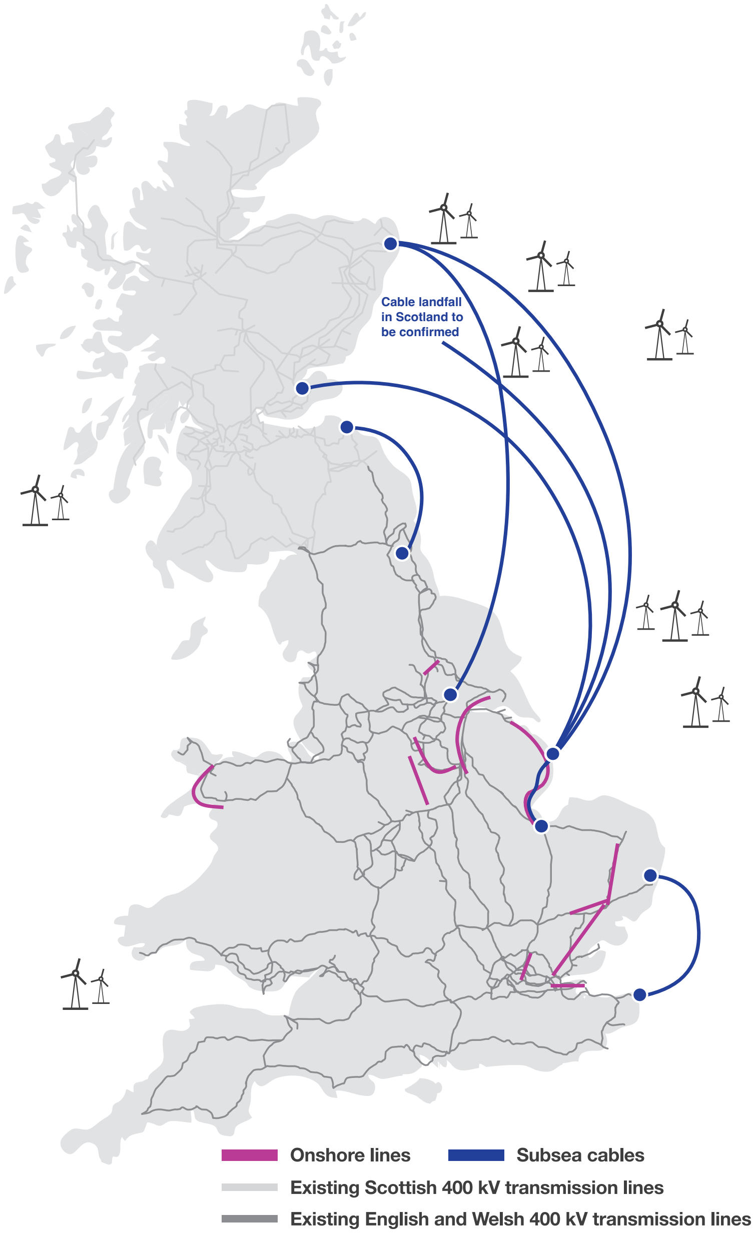


Figure 2 – Map of existing high voltage electricity transmission network and projects proposed as part of The Great Grid Upgrade

The Great Grid Upgrade will:

- Contribute to lower energy bills over the long term and make the UK's energy more self-sufficient.
- Support hundreds of thousands of jobs and contribute an average of £18.4bn to GDP.

[3] https://assets.publishing.service.gov.uk/media/677bc80399c93b7286a396d6/clean-power-2030-action-plan-main-report.pdf

Contents

Foreword

Thank you for your interest in our proposals to upgrade the electricity grid in your local area. These proposals are key to delivering The Great Grid Upgrade.

Eastern Green Link 3 (EGL 3) and Eastern Green Link 4 (EGL 4) are two new primarily offshore high voltage electricity links, with associated onshore infrastructure, between Scotland and England.

EGL 3 would run from Peterhead, Aberdeenshire, to Walpole, Norfolk, and EGL 4 would run from Westfield, Fife, to a common location in Walpole, Norfolk.

EGL 3 and EGL 4 would help to meet Government targets to reduce carbon emissions, increase our country's energy security, and carry cleaner and more affordable energy to where it is needed.

EGL 3 and EGL 4 are needed as the existing transmission network does not have enough capacity to securely and reliably transport the increasing amount of energy generated in Scotland and Scottish waters, particularly from offshore wind, to population centres in the Midlands and South of England.

Following our stage 1 (non-statutory) consultation in Spring and Summer 2024, we have developed our proposals and are pleased to share these for your feedback. We encourage you to share your views on the proposed siting of infrastructure and what you would like to see us consider as we finalise our proposals and prepare to submit our application for development consent.

All documents published as part of this consultation, including this Stage 2 consultation document, can be found at **nationalgrid.com/egl3andegl4** and are available on request by contacting the project team at **contactegl3and4@nationalgrid.com** or **0800 298 0405**.

We encourage everyone to take time to review our proposals, get in touch with any questions, and respond by **11:59pm Monday 23 June 2025**.

Mark Brackley, Project Director, Eastern Green Link 3 (EGL 3)

James Goode, Project Director, Eastern Green Link 4 (EGL 4)

Consulting on our proposals

EGL 3 and EGL 4 are projects of national significance. These types of projects require a special type of planning permission in order to be built, known as a development consent order (DCO).

We will be seeking consent for the English elements of both EGL 3 and EGL 4 via one application to the Planning Inspectorate for a DCO. Although EGL 3 and EGL 4 are independent of one another, in effect separate projects, due to their ultimate common connection point in England (the proposed new Walpole B substation) we decided to develop them in parallel. In addition to enabling one DCO application, this coordinated and co-located approach to their routeing and siting provides the opportunity to potentially reduce the extent of community and environmental impact.

Consultation is an important part of the DCO process. Feedback from our consultations – along with the outcome of technical assessments and environmental surveys – helps us to develop our proposals before we submit our DCO application to the Planning Inspectorate.

The Planning Inspectorate will then examine our application and make a recommendation to the Secretary of State for Energy Security and Net Zero who will decide whether to grant consent for the building and operation of EGL 3 and EGL 4.

This is our second public consultation on our proposals for EGL 3 and EGL 4.

Scan this QR code to view a short film about the Development consent order process, or visit the Planning Inspectorate website – **infrastructure.planninginspectorate.gov.uk/application-process/the-process/**

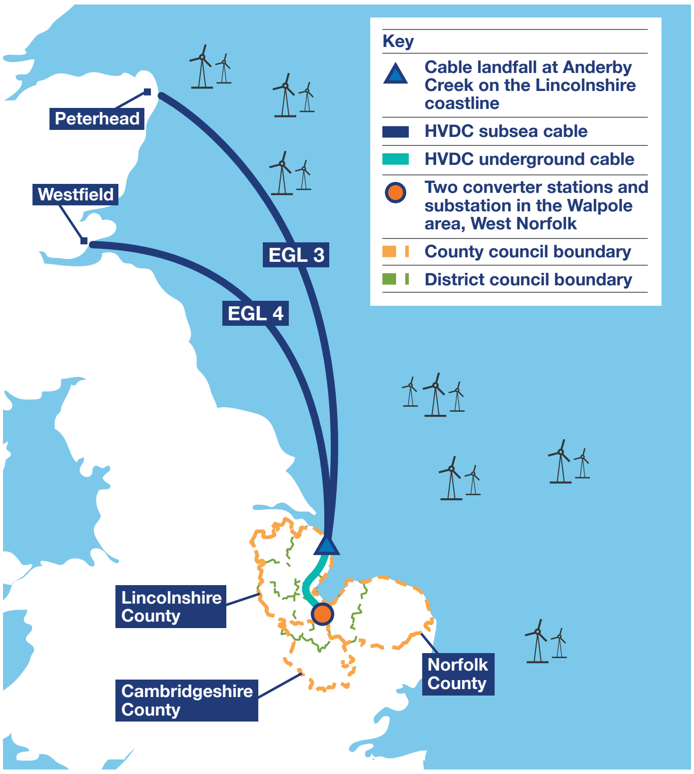


Figure 3 – Overview of EGL 3 and EGL 4

Our approach to consulting with communities

All infrastructure projects have impacts and benefits both locally and nationally. We will consult and work with local residents and their representatives, and through all stages of the planning and construction process. Our aim is to minimise the impacts and maximise the benefits for local communities.

EGL 3 and EGL 4 are part of The Great Grid Upgrade. Our aim is for The Great Grid Upgrade to deliver social and economic benefits as well as providing a vital environmental service to Britain by decarbonising the electricity network.

NGET's Eastern Green Link 5 (EGL 5) project is holding a stage 1 consultation on its proposals in East Lindsey at the same time as EGL 3 and EGL 4 (opens 12pm noon Tuesday 13 May, closes 11:59pm Monday 23 June 2025).

See page 28 for more information on this and other NGET projects in the region.

Public consultation stages

Between 23 April and 15 July 2024, we held our stage 1 consultation introducing our proposals for EGL 3 and EGL 4. This allowed us to introduce the projects, answer questions and listen to feedback on our early proposals. We are grateful to everyone who took the time to provide comments.

21,000
Community Newsletters

Total attendees at events
Over 600

Total feedback submitted
280

Further details on the feedback we received to our initial consultation can be found in our Non-statutory consultation feedback report, which is available in the document library on our website.

Alongside feedback from the local community, and from our ongoing engagement with stakeholders, we have considered the outcome of technical assessments and environmental surveys to further develop our proposals. This stage 2 consultation is a further opportunity to share your views.

EGL 3 and EGL 4 timeline

2024
Stage 1 consultation

2025
Stage 2 consultation
EGL 3 and EGL 4 are at this stage

2026
DCO application submission

2029
Construction starts

2033
Fully operational

Statement of community consultation (SoCC)

The SoCC is a document which explains how we will consult the community, including information for members of the public on how to get involved and submit feedback. We have worked with each of the local authorities in the areas affected by the projects to develop and agree the SoCC. You can view a copy on our website, in the document library.

What has changed since our stage 1 consultation?

Following the stage 1 consultation, we have reviewed and carefully considered the feedback received. This, along with the outputs from technical and environmental studies, has informed the development of our proposals and resulted in several changes, including:

- bringing the EGL 3 and EGL 4 proposed offshore cables in English waters into the scope of our DCO application rather than consenting these separately by way of a standalone offshore license, which is why they are now part of this stage 2 consultation
- confirmation of landfall at Anderby Creek on the Lincolnshire coastline for the EGL 3 and EGL 4 offshore cables, with a potential landfall at Theddlethorpe discounted. This has removed the need for the cable route running south from Theddlethorpe
- removing the converter station and direct current switching station near Bilsby, East Lindsey, from our proposals. This would have provided a three-ended link for either EGL 3 or EGL 4. Note that National Grid's Eastern Green Link 5 (EGL 5) project is proposing a new converter station in this general area. See its website – **nationalgrid.com/egl5** – for more information
- discounting the option for a cable route running north of Huttoft from Anderby Creek landfall to the Bilsby area
- discounting the option for a cable route that tracked the A17 from Fosdyke Bridge to Sutton Bridge
- adding an alternative proposed cable route, which is outside the emerging preferred corridor shown at our stage 1 consultation, which would run through Fenland District, Cambridgeshire, to the River Nene. This is in response to new solar developments affecting the original route
- avoiding land/properties where possible in response to feedback received from landowners
- discounting the offshore route options that routed directly through the centre of the Holderness Offshore Marine Conservation Zone (MCZ). The proposed EGL 3 route now completely avoids the Holderness MCZ. The proposed EGL 4 cable route crosses the south-east corner of the Holderness MCZ but minimises interaction with it as much as possible.

Other than the key changes highlighted above, proposals for underground cables remain within the emerging preferred corridor shared during our stage 1 consultation.

What is an emerging preferred corridor?
The emerging preferred corridor is the area we have identified further to initial technical and environmental assessments where new infrastructure, such as our underground cables and converter station, could be located.

You can learn more about the feedback we received as part of our stage 1 consultation and how we considered it as we developed our proposals in our Non-statutory consultation feedback report and Design development report. These can be found in the document library on our website.

Stage 2 consultation
This stage of consultation is called a statutory consultation because it is being carried out in line with the Planning Act 2008. Statutory consultation is a requirement of the DCO process.

What we are seeking feedback on now

We are seeking views on our updated proposals, including where we propose to build the new infrastructure and any other factors you would like us to consider as we further develop our plans.

The key onshore and offshore elements of our proposals in England and English waters which comprise the projects and are therefore within the scope of this consultation are:

- offshore high voltage direct current (HVDC) cables. In English waters, EGL 3's cable would be approximately 436 km long and EGL 4's would be approximately 425 km
- transition joint bays to connect our offshore and onshore HVDC cables, located onshore near to our proposed cables landfall at Anderby Creek on the Lincolnshire coastline
- underground HVDC cables running together for approximately 100 km from the joint landfall at Anderby Creek to the EGL 3 and EGL 4 converter stations in the Walpole area, West Norfolk
- two converter stations in the Walpole area, with one converter station for EGL 3 and one for EGL 4
- one substation in the Walpole area, called Walpole B, where both EGL 3 and EGL 4's Walpole converter stations would connect to and then onto the electricity transmission network (this substation is also jointly proposed as part of NGET's Grimsby to Walpole project)
- underground high voltage alternating current (HVAC) cables that would connect the converter stations into the substation
- supplementary works to the existing 400 kV overhead line to enable a connection with the new Walpole substation.

Sufficient land would be required in order to build EGL 3 and EGL 4 and to reduce the potential impacts of the projects, including:

- temporary land for construction activities including work areas for construction equipment and machinery, site offices, welfare, storage, access and drainage
- land required for mitigation, compensation and enhancement of the environment as a result of the environmental assessment process and for the purposes of delivering biodiversity net gain (BNG), for example by landscaping and planting.

Consent in Scotland and Scottish waters

We are jointly developing EGL 3 with Scottish and Southern Electricity Networks Transmission (SSEN Transmission) and EGL 4 with SP Energy Networks. SSEN Transmission and SP Energy Networks are responsible for obtaining consent for EGL 3 and EGL 4 in Scotland and Scottish waters.

See the 'Our proposals' chapter for more information on the above proposed infrastructure.

Our proposals are outlined in this Stage 2 consultation document, along with information about where to find out more and how to get involved in the consultation. As part of this consultation, we have also published:

- **Feedback form:** to gather comments and feedback on our proposals
- **Consultation newsletter:** a summary of the EGL 3 and EGL 4 projects and public consultation details
- **Consultation banners:** a summary of EGL 3 and EGL 4's onshore and offshore proposals
- **Statement of community consultation (SoCC):** sets out our approach to consulting with the local community on our proposals and has been developed in consultation with all relevant local authorities in the areas affected by the projects
- **Preliminary environmental information report (PEIR):** this considers the likely environmental effects of our proposals, alongside our proposed mitigation measures
- **Non-technical summary of the PEIR:** a simplified overview of the likely environmental effects of our proposals and our mitigation measures
- **Non-statutory consultation feedback report:** summarises the feedback we received during the 2024 stage 1 non-statutory consultation and how it has been considered
- **Design drawings:** illustrative drawings of infrastructure proposed
- **Converter station design – background to potential architectural approaches:** provides a background to and summary of the potential architectural approaches for proposed converter stations
- **Soils and drainage leaflet:** explains how we work with soils and drainage
- **Interactive projects map:** shows a higher level of detail and is available on the EGL 3 and EGL 4 website
- **Onshore and offshore plans:** detailed plans of where we propose to locate our infrastructure
- **Design development report:** explains how the development has progressed since the stage 1 consultation and why four potential siting options are being considered for the proposed converter stations in the Walpole area
- **Strategic options report update:** provides an updated overview of the appraisal approach we have used to date to consider strategic options. These are reviewed and backchecked on as part of the ongoing strategic options assessment and decision making process
- **Guide to consultation documents and drawings:** provides guidance on interacting with our consultation documents.

All of these materials are available to download from our website at **nationalgrid.com/egl3andegl4**. Printed copies of most of our consultation documents are available free of charge on request. These can be requested by emailing **contactegl3and4@nationalgrid.com** or by calling us on **0800 298 0405**. Some detailed technical documents may be subject to a printing charge.

How to find out more

All consultation information is available on our website: **nationalgrid.com/egl3andegl4**.

We are keen for as many people as possible to get in touch, meet with us and share their feedback during our consultation.

Printed copies of the Consultation newsletter, Feedback form, and Stage 2 consultation document are available free of charge on request or to collect at public information events and at local information points.

Reference only copies of the Non-technical summary of the PEIR and SoCC are also available to view at local information points (**see Table 3**).

During the consultation we are holding a series of face-to-face public information events (**see Table 1**), where we will present information about our proposals and members of the project team will be available to answer questions.

Copies of our maps and technical documents, including the PEIR, will also be available to view.

We will also hold online webinar sessions where we will present our proposals and hold an open question and answer session. You can attend the webinar most relevant to you by joining one of our location-themed webinars (**see Table 2**). Details on how to sign-up for a webinar are available on the website, by contacting us on **0800 298 0405** or by emailing **contactegl3and4@nationalgrid.com**. Recordings of the webinars will be made available on our website after they have taken place.

A telephone call-back service is also available for those who would prefer to speak with a member of our team on the phone.

To learn about our proposals:

- read this Stage 2 consultation document
- visit our website at: **nationalgrid.com/egl3andegl4**.
- come to a public information event (**see Table 1**)
- join an online webinar session (**see Table 2**)
- visit a local information point (**see Table 3**)
- book a 'team call-back' by visiting our website or calling or emailing us (see below)
- sign up to receive project update emails (visit our website)
- call us on freephone **0800 298 0405**. Lines are open Monday to Friday 9am–5pm, with an answerphone facility taking messages outside of these hours
- email us: **contactegl3and4@nationalgrid.com**

To respond to the EGL 3 and EGL 4 consultation:

Complete the online feedback form on our website

Email your comments to: **contactegl3and4@nationalgrid.com**

Post your written responses (no stamp required) to: **Freepost EASTERN GREEN LINKS 3 & 4**

Complete a printed feedback form and return it using the freepost address

Please respond to our consulation by 11:59pm Monday 23 June 2025.

Table 1 Public information events

Location	Date	Time	Address
Burgh le Marsh	Wednesday 21 May 2025	2pm – 7pm	Burgh le Marsh Village Hall, Jacksons Lane, Burgh le Marsh, Skegness, PE24 5LA
Huttoft*	Thursday 22 May 2025	2pm – 7pm	Huttoft Village Hall, Sutton Rd, Alford, LN13 9RG
Eastville	Saturday 24 May 2025	2pm – 7pm	Eastville, Midville and New Leake Village Hall, Station Road, Eastville, PE22 8LS
Walpole	Thursday 29 May 2025	2pm – 7pm	Walpole Community Centre, Summer Close, Walpole St Andrew, PE14 7JW
Alford*	Saturday 31 May 2025	2pm – 7pm	Alford Corn Exchange, 9 Market Place, Alford, LN13 9EB
Kirton Holme	Tuesday 3 June 2025	2pm – 7pm	Poachers Country Hotel, Swineshead Road, Kirton Holme, PE20 1SQ
Holbeach	Wednesday 4 June 2025	2pm – 7pm	The Holbeach Hub, Boston Road South, Holbeach, PE12 7LR
Tydd St Giles	Thursday 5 June 2025	2pm – 7pm	Tydd St Giles Community Centre, Broad Drove East, Wisbech, PE13 5LN

Table 2 Webinars

Name	Sections	Date	Time
Webinar 1: Offshore proposals*	Offshore proposals	Friday 23 May 2025	12pm – 1pm
Webinar 2: Anderby Creek landfall to Candlesby*	Section 1	Thursday 5 June 2025	7pm – 8pm
Webinar 3: Candlesby to Frith Bank	Sections 2 and 3	Tuesday 10 June 2025	7pm – 8pm
Webinar 4: Frith Bank to South Holland Drain	Sections 4, 5 and 6	Friday 30 May 2025	12pm – 1pm
Webinar 5: South Holland Drain to Walpole area	Section 7	Thursday 12 June 2025	12pm – 1pm

* Joint public information events, webinars and local information points with Eastern Green Link 5 (EGL 5). See **nationalgrid.com/egl5** for more information.

Table 3 Local information points	
Alford Library and Focal Point*	6 South Market Place, Alford, LN13 9AF
Burgh le Marsh Library and Community Hub	Tinkers Green, Jacksons Lane, Burgh le Marsh, PE24 5LA
Boston Library	County Hall (Bank Street Entrance), Bank Street, Boston, PE21 6DY
Holbeach Community Library	5 Fleet Street, Holbeach, PE12 7AD
Long Sutton Library	Trafalgar Square, Long Sutton, PE12 9HB
Wisbech Library	Ely Place, Wisbech, PE13 1EU
King's Lynn Library	London Road, King's Lynn, PE30 5EZ
Skegness Library*	23 Roman Bank, Skegness, PE25 2SA

Local information point opening hours can be subject to change. **Please check with the relevant venue for the most up to date opening hours.**

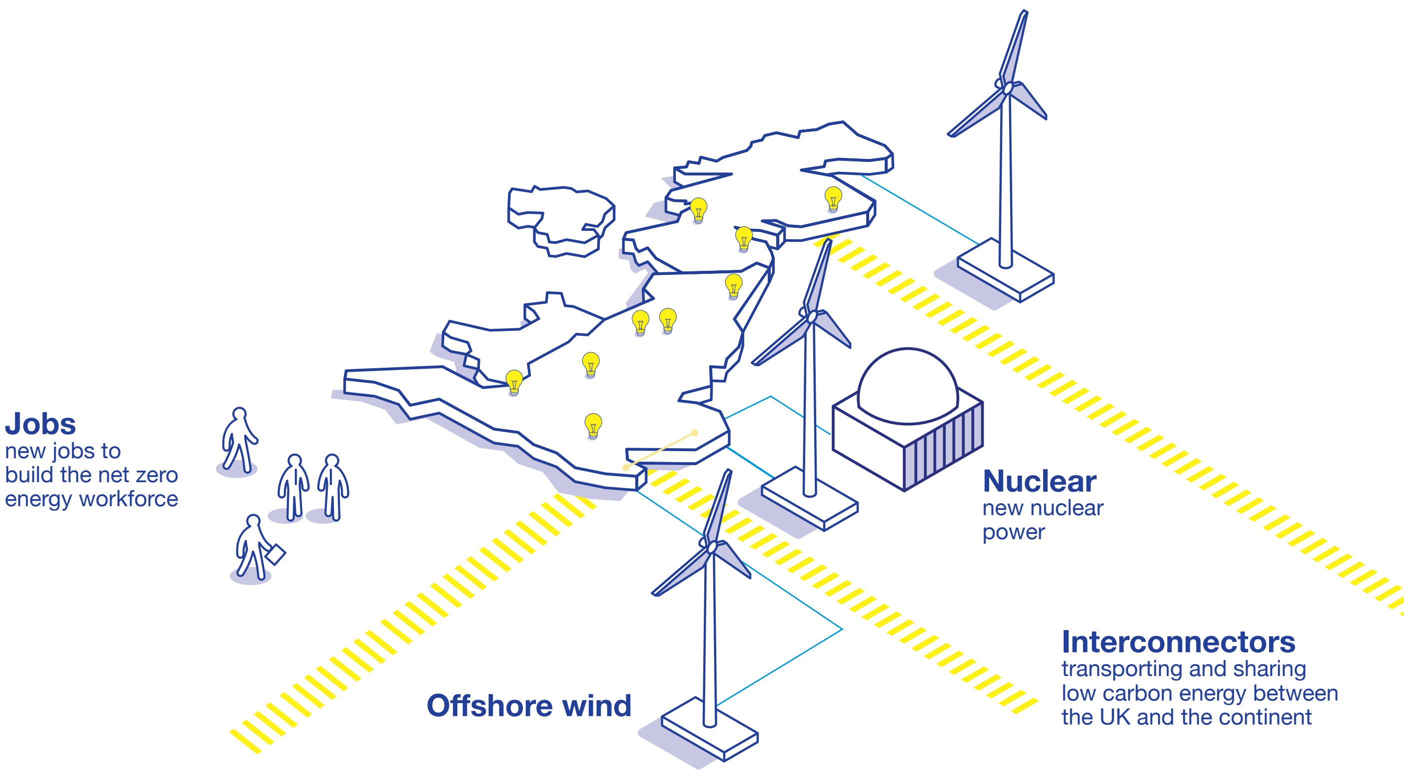
The need for EGL 3 and EGL 4

EGL 3 and EGL 4 would both play an important role in building a more secure and resilient future energy system by reliably transporting electricity generated in Scotland, particularly from offshore wind, to the Midlands and South of England.

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. The fossil fuels that once powered our economy are being replaced with sources of low carbon electricity. Meeting Government targets will be a major step towards decarbonising our economy and providing homes and businesses with clean, secure, and affordable energy.

To deliver more home-grown clean power to where it is needed and increase our energy security, we must also upgrade the transmission system – ‘the grid’.

Delivering the infrastructure needed to achieve this ambition will boost local economies, provide jobs and opportunities to learn new skills and bring vital investment right across the country.



Reinforcing the transmission network between Scotland and the Midlands and South of England

Demand for electricity is forecast to increase and more electricity is being generated offshore. We need to make sure our grid has the capacity for the increased amount of power that will flow between Scotland and England.

Following guidance from the National Energy System Operator (NESO), we have identified that the existing transmission network (made up of pylons (technically called ‘towers’), overhead lines and underground cables) between Scotland, the Midlands and the South of England does not currently have the capacity to reliably transport this increasing energy.

EGL 3 and EGL 4 would help provide the increased capacity between Scotland and the Midlands and South of England. They would carry up to 2 GW of electricity each, together enough for four million homes.

A watt is a measure of power and there are 1 billion watts in 1 GW. 1 GWh is the equivalent of powering one million UK homes for one hour.

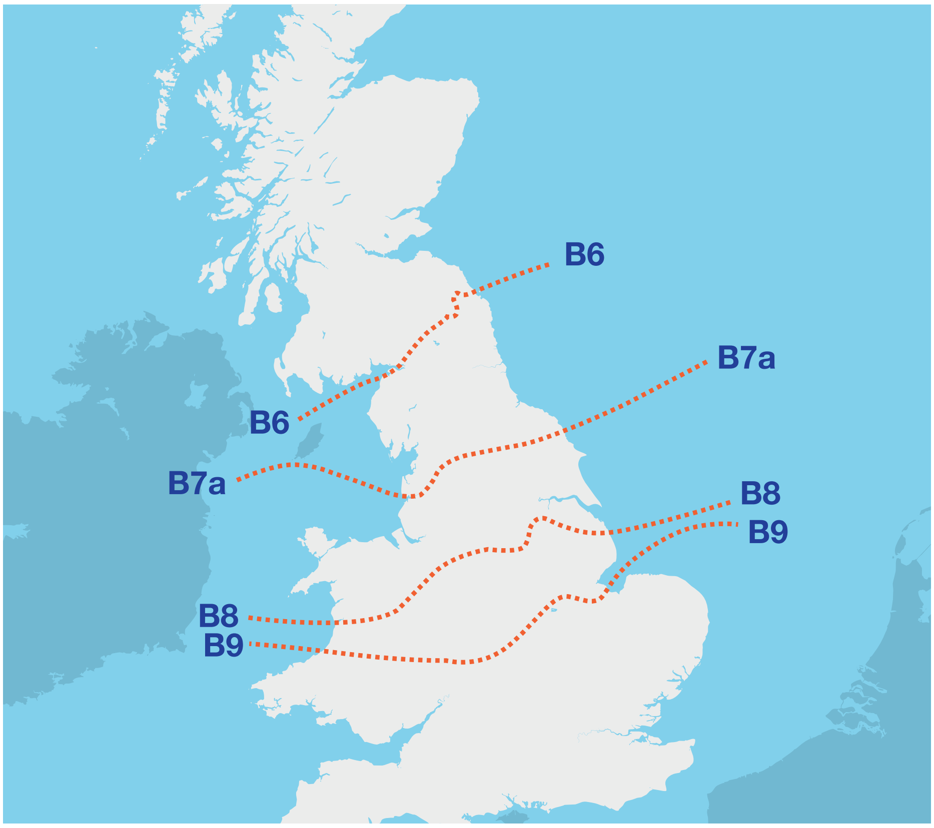


Figure 4 – Boundaries B6, B7a, B8 and B9 that EGL 3 and EGL 4 are designed to transport electricity across from Scotland

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 needed and is being generated in Britain, we can assess where the power flows between these boundaries will need to increase. 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 3 and EGL 4 will help achieve this.

Why here?

An assessment of the options for the landfall for EGL 3 and EGL 4 determined that the best place would be on the Lincolnshire coastline, connecting into the transmission network in the Walpole area, in Norfolk, via a new substation called Walpole B. There is currently existing infrastructure in the Walpole area, including a substation and overhead lines, connecting into existing electricity transmission infrastructure that supplies the Midlands and South of England.

If EGL3 and EGL4 were connected to the existing network north of the B9 boundary, additional network reinforcement would be needed to carry power further south.

Why make landfall on the Lincolnshire coastline if you are connecting to the transmission network in the Walpole area?

Large parts of the Lincolnshire and Norfolk coastlines, including The Wash and North Norfolk Coast National Landscape, are environmentally sensitive and protected. There are also many areas of population along the coastline such as Skegness. These factors make routing subsea cables directly to the Walpole area very challenging.

The Anderby Creek area on the Lincolnshire coastline has been determined to be the most feasible location for our landfall. Past projects, including National Grid Venture's Viking interconnector project, have successfully made landfall in this area. An Anderby Creek landfall, means that around 100 km of underground HVDC cable is required between the Lincolnshire coastline and the Walpole area.

Do you want more detail?

You can learn more about how we identified the need and our appraisal process by looking at the following on our website:

- Strategic options report update (an updated version of the document shared as part of our stage 1 consultation and available on our website's Documents library)
- Corridor and preliminary routeing and siting study (shared as part of our stage 1 consultation and available on our website's Document library)
- Marine route options appraisal non-technical summaries (shared as part of our stage 1 consultation and available on our website's Document library).

Other Eastern Green Link projects

EGL 3 and EGL 4 are two of several network upgrades that are helping to connect more homegrown renewable energy to homes and businesses. These include EGL 1 and EGL 2, two other high voltage electricity links from Scotland to County Durham and North Yorkshire respectively. Both EGL 1 and EGL 2 are in the early stages of construction.

EGL 5 is another proposed primarily offshore high voltage electricity link that would run from a location in Scotland (to be confirmed) to a joint landfall with EGL 3 and EGL 4 at Anderby Creek on the Lincolnshire coastline before routeing to a new converter station proposed in East Lindsey.

All five Eastern Green Links form part of The Great Grid Upgrade, which is the largest overhaul of the grid in generations.

Learn more about other NGET projects in the region on page 28.

Our proposals

Infrastructure explainer	
High voltage direct current (HVDC) cables	HVDC cables can be used to transport large amounts of power over long distances, onshore and offshore. When used onshore, these are installed underground. Offshore cables are installed under the seabed.
High voltage alternating current (HVAC) cables	Power is normally generated, transmitted and distributed as alternating current (AC) through high voltage alternating current cables. AC is efficient for distributing energy into homes and businesses as its voltage can be easily changed to suit the need. These cables are installed underground.
Converter stations	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.
Substations	Substations convert electricity into different voltages. This enables electricity to be transmitted and distributed throughout the country into our homes and businesses. These are above ground.
Transition joint bays	Transition joint bays connect offshore and onshore cables. These are located underground.
Cable joint bays	Cable joint bays are used to connect different sections of underground cables together along the onshore route. These can be located underground or above ground depending on the type of cable.
Marker posts	Marker posts are located above ground, to confirm the presence of a cable route, where it crosses roads, field margins or changes direction.
Pylons and overhead lines	Pylons are used to support high voltage overhead lines – the cables that transmit electricity in alternating current all over the country. They keep these cables high enough from the ground that they can easily pass over roads, rivers, valleys or railway lines without coming into contact with passing vehicles or people. Overhead lines can transmit higher amounts of electricity than underground and subsea cables.

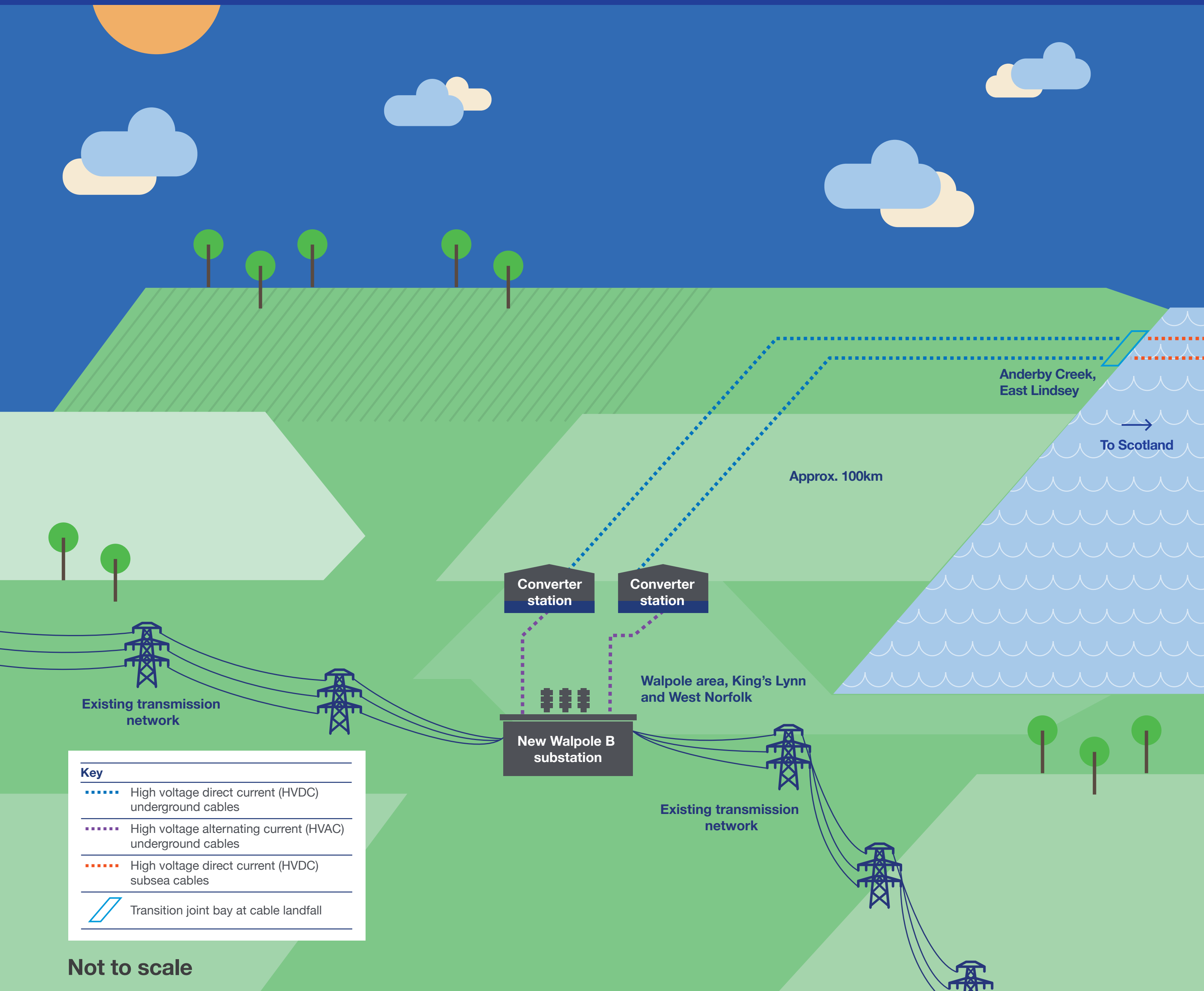


Figure 5 – EGL 3 and EGL 4 onshore in England

Following our stage 1 consultation, we reviewed and carefully considered the feedback we received which, alongside the outcome of technical and environmental studies, helped us develop our proposals for our stage 2 consultation.

This work enabled us to refine the proposed route corridors and siting zones down and refine the draft order limits.

We are proposing that both projects would make landfall in Anderby Creek. Once onshore, the underground HVDC cables would run alongside each other for most of the proposed 100 km route to converter stations as detailed below. From the converter stations, the HVAC underground cables for EGL 3 and EGL 4 would run to the proposed Walpole B substation in the Walpole area.

We are no longer bringing forward proposals for a converter station and a direct current switching station in the Bilsby area, East Lindsey, which formed part of stage 1 consultation.

EGL 3 and EGL 4's proposed onshore elements include:

EGL 3

- approximately 100 km of new underground HVDC cable, from the landfall point at Anderby Creek to the proposed EGL 3 converter station (including a transition joint bay at landfall)
- a new converter station, in the Walpole area and the vicinity of the existing Walpole substation
- approximately 5 km of new underground HVAC cable, between the EGL 3 Walpole converter station and the new 400 kV Walpole B substation that would be in the vicinity of the existing Walpole substation.

EGL 4

- approximately 100 km of new underground HVDC cable, from the landfall point at Anderby Creek to the proposed EGL 4 converter station (including a transition joint bay at landfall)
- a new converter station, in the Walpole area and vicinity of the existing Walpole substation
- approximately 5 km of new underground HVAC cable, between the EGL 4 Walpole converter station and the new Walpole B substation.

EGL 3 and EGL 4's proposed new Walpole B substation in the Walpole area (connecting both EGL 3 and EGL 4 to the network) also forms part of NGET's Grimsby to Walpole proposals.

To connect the new substation into the existing transmission network, it will be necessary to install a short length of new overhead line. This would involve the removal of two existing pylons and the installation of four new pylons.

Our proposals have been refined following feedback from our stage 1 consultation as well as our work on engineering and environmental assessments for the cable routes and locations of supporting infrastructure. More information can be found in:

- PEIR and its non-technical summary
- Design development report.

The proposed offshore elements for EGL 3 and EGL 4 include:

EGL 3

- subsea HVDC cables extending approximately 580 km from Sandford Bay, Peterhead in Scotland to a joint landfall with EGL 4 at Anderby Creek on the Lincolnshire coastline in England
- approximately 436 km of the offshore cable would be in English waters, from the offshore boundary between English and Scottish waters to landfall at Anderby Creek.

EGL 4

- subsea HVDC cables extending approximately 530 km in length from Kinghorn, Fife in Scotland to a joint landfall with EGL 3 at Anderby Creek
- approximately 425 km of the offshore cable would be in English waters, from the offshore boundary between English and Scottish waters to landfall at Anderby Creek.

NGET is jointly developing EGL 3 with Scottish and Southern Electricity Networks Transmission (SSEN Transmission) and EGL 4 with SP Energy Networks. SSEN Transmission and SP Energy Networks are responsible for obtaining consent for EGL 3 and EGL 4 in Scotland and Scottish waters.

Our proposed onshore infrastructure

Converter stations and substation

As part of our design process, we have selected one site for our substation and four potential options – A to D – for the siting of our two converter stations. For ease of understanding, we have placed an illustrative image of each option along with a corresponding map on pages 46 – 56.

We are seeking feedback on these options as part of the stage 2 consultation. We will consider this feedback along with the wider environmental and engineering constraints, before deciding on a preferred option for inclusion in our DCO application.

You can also learn more about why we selected these options by reading our Design development report.

Figure 6 – National Grid Venture's Viking Link converter station, which illustrates what the EGL 3 and EGL 4 converter stations could look like

Dimensions

Each of our converter stations would sit on a platform. The platform footprint for each converter station would be approximately 350 m x 250 m (8.8 ha). The converter stations would have a maximum height of 30 m (excluding the platform height (1.7 m), lightning protection and aerials).

The Walpole B substation's functional footprint could extend up to 793 m x 190 m (approximately 15.4 ha including an area for ancillary works and parking). It would have a maximum height of 15 m.

Figure 6 shows what the converter stations could look like.

Potential design approaches to proposed converter stations

During our stage 1 consultation we sought feedback on potential design approaches for the proposed converter stations. We listened to this feedback and have continued to explore these design approaches. We welcome further views on the below updated approaches.

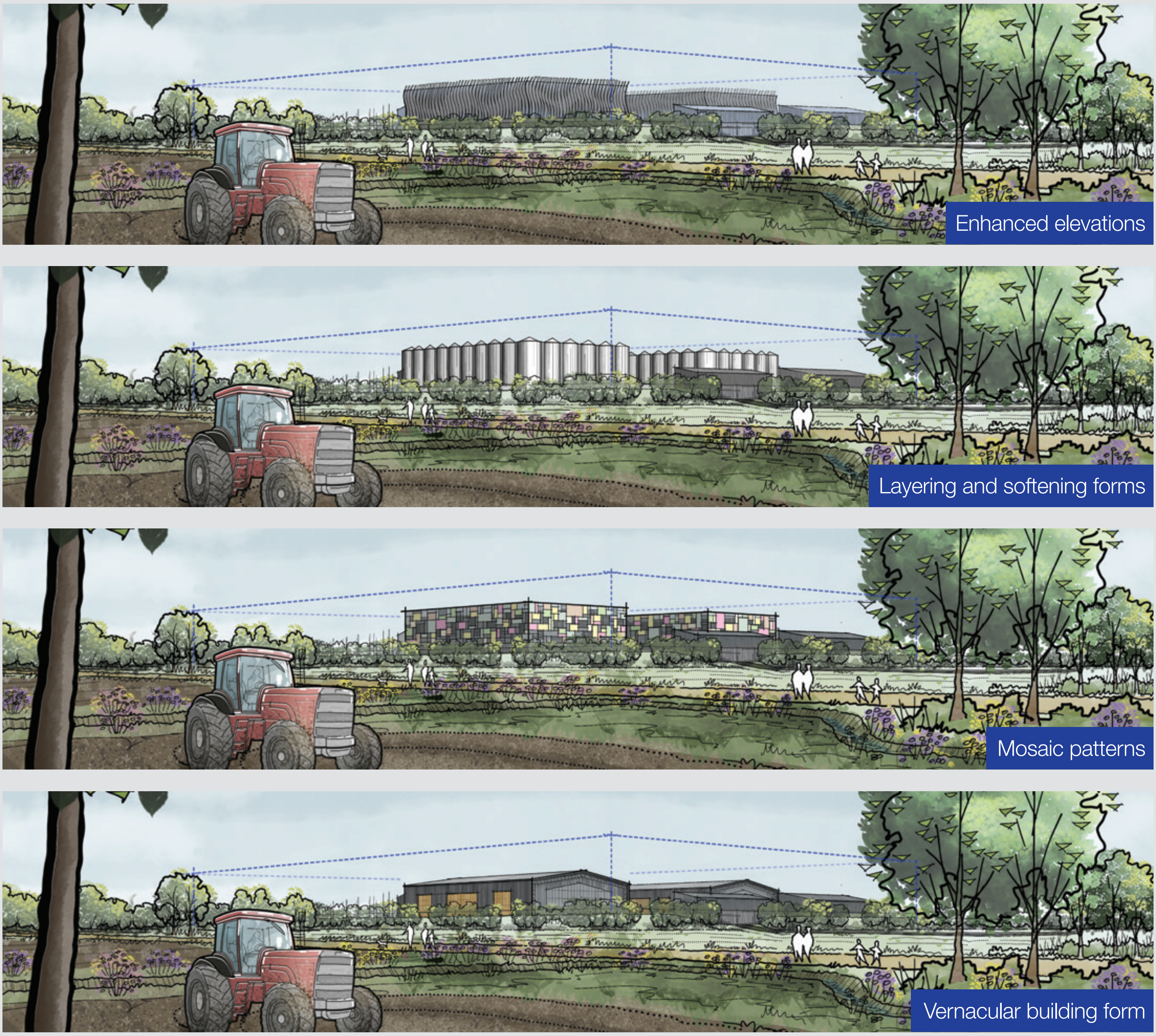


Figure 7 – Potential design approaches to proposed converter stations

Underground cables

Our onshore cables, both HVDC and HVAC, would be buried underground. The only above ground infrastructure required along the cables would be small marker posts for the HVDC cables, and small marker posts and link pillars (boxes up to 1.5 m high which connect or switch underground cables) for the HVAC cables.

EGL 3 and EGL 4 will each have a set of two HVDC cables, which will both run together from the landfall at Anderby Creek before heading into their respective converter stations in the Walpole area.

From the converter stations, each project would have two sets of three HVAC cables, which will run from their respective converter stations to the shared substation.

A fibre optic cable would run alongside the HVDC and HVAC cables for monitoring purposes.

You can learn more about the installation of the cables on pages 58 – 59, and their proposed location by section, on pages 34 – 55.

Transition joint bays

Our proposed landfall at Anderby Creek is where the onshore underground cables and offshore cables would meet. The cables would be connected at buried transition joint bays 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. It is currently anticipated that we would construct two single transition joint bays – one for EGL 3 and one for EGL 4.

No permanent above ground infrastructure would be required for the transition joint bays, however, there may be a requirement to permanently raise the platform for the transition joint bays and landscaping provided around this. The height of the platform is not yet known, this will be confirmed at the detailed design stage.

Figure 8 – A cross-section of a cable

Offshore proposals

You can read about our offshore proposals, including subsea cables, on pages 56 – 57.

For more information on our proposed infrastructure, please see Chapter 4 of the PEIR and/or our Non-technical summary of the PEIR available on our website.

How options were identified for EGL 3 and EGL 4

When a need to upgrade the transmission system is established by the National Energy System Operator (NESO), which is the publicly owned organisation that operates both the electricity transmission and gas distribution systems in the UK, NGET studies and evaluates the potential options for addressing it. We are bound by Government policy, legislation, regulation and industry rules which inform the balance that needs to be struck between benefits and potential impacts when developing our proposals. Our projects will also be assessed by our regulator Ofgem, who will expect the proposals to be as cost-effective as possible for electricity bill payers.

Having identified expected capacity shortages between Scotland and the Midlands and South of England, we explored options for locating the recommended network upgrade – two new 2 GW HVDC electricity links – in the South Humber area.

Key considerations for potential locations included whether existing (or planned) NGET substations could meet the need without additional upgrades, along with:

- technology options available and whether they could be delivered
- environmental and socio-economic constraints
- initial capital costs along with lifetime costs (calculated over a 40-year period)
- the potential system benefits of each option
- the ability to deliver EGL 3 and EGL 4 in the required timescale.

A further technical appraisal identified seven potential options. The appraisal established:

- all options would need additional reinforcement works to fully address the need
- each option's overall route length – a key factor in determining the extent of environmental and socio-economic effects – ranged between 1,026 km and 1,206 km
- three of the options would have potential impacts on various designated environmental areas
- a preference for a subsea and underground HVDC link rather than AC overhead lines due to lower associated costs over its lifetime
- the lowest cost option for fully addressing the need.

The outcome of this appraisal concluded that connecting to the proposed new Walpole B substation via the Lincolnshire coastline would be the best option economically, environmentally and technically.

For more information on the assessment of options, please see our Strategic options report update available on our website at **nationalgrid.com/egl3andegl4**.

This process led to the development of our early-stage proposals, which we shared at our stage 1 consultation between 23 April 2024 to 15 July 2024 to seek feedback from stakeholders and members of the community. Feedback from the consultation helped us to refine the cable routes and the location of onshore infrastructure for EGL 3 and EGL 4.

Developing our onshore proposals

For all elements of our onshore and offshore proposals we have sought to minimise potential impacts on residential properties, landowners, the environment and communities.

Following identification of the Lincolnshire coastline as the connection location, we considered the potential route of the cables as well as the siting of the landfall, substation and converter stations.

To do this, we defined a study area – informed by the locations of built-up areas, natural features, protected sites, offshore activities and existing transmission corridors – and mapped key environmental features within it. We used computer modelling to devise potential routes (for example on one side of a town or the other), and zones for the location of other onshore elements.

Further studies of potential environmental and socioeconomic effects, technical complexity, cost and programme help to identify an emerging preferred corridor for the cable route. Siting zones for the converter stations and substation were identified with further consideration of proximity to communities, locations of public rights of way and cycle routes, environmental effects, the potential for screening the proposals behind existing woodland and the nature of roads of access.

Onshore emerging preferred corridor, siting zones and graduated swathe for stage 1 consultation

Following the selection of the emerging preferred corridor, landfall areas and siting zones, we produced a graduated swathe and sought feedback on it at our stage 1 consultation.

The graduated swathe showed which areas within the emerging corridor, landfall areas, and siting zones would be more or less suitable for the proposed infrastructure, based on our engineering and environmental assessments to date.

The darker shading indicated the areas that were likely to be more suitable, while lighter shading indicated areas we considered to be less appropriate.

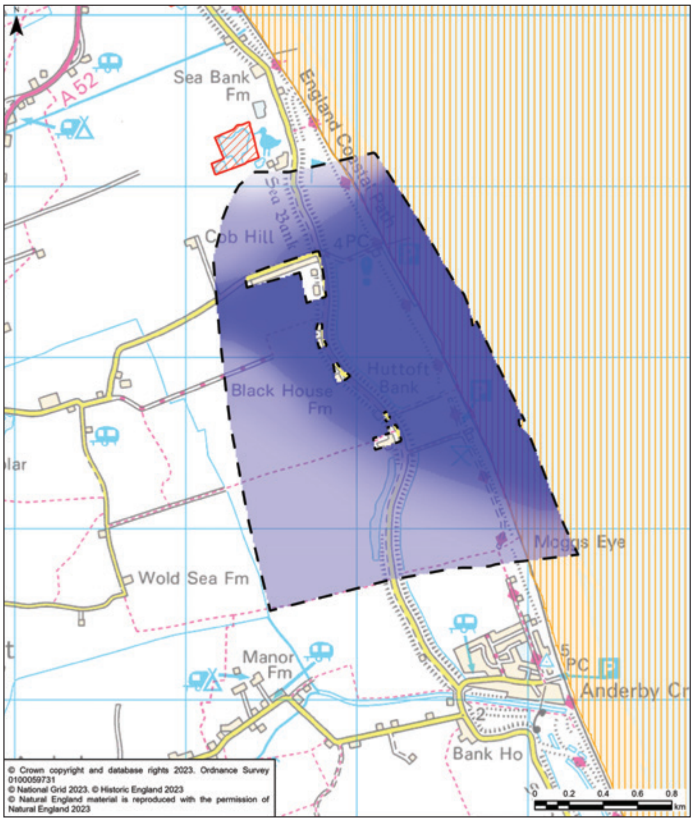


Figure 9 – An example of a graduated swathe from our stage 1 consultation

Where we are now: defined proposal and statutory consultation

Following our stage 1 consultation, we considered all feedback received and developed detailed plans for EGL 3 and EGL 4. We are now consulting on our defined, detailed proposals for the projects.

Draft order limits

Draft order limits outline the area, both onshore and offshore, within which new infrastructure and temporary construction works would be located.

There are areas where temporary and permanent works to the highways would be needed to facilitate the construction of the project. This means there are areas within the draft order limits which are located away from the main project area.

Our draft order limits are based on technical and environmental assessments, and feedback from stakeholders and the community.

Onshore draft order limits

Figure 11 on page 33 shows a high-level view of the onshore draft order limits for EGL 3 and EGL 4, located within Lincolnshire, Norfolk and Cambridgeshire. The most northerly elements of EGL 3 and EGL 4 would be located at Anderby Creek, on the Lincolnshire coastline, where the projects would make landfall. The draft order limits extend from mean low water springs at landfall and continue south, west of Boston, before terminating in the vicinity of the existing Walpole substation within King's Lynn and West Norfolk, where the projects would connect into the 400 kV transmission system via the new Walpole B substation.

We have identified potential locations within the draft order limits for our proposed converter stations and substation.

Offshore draft order limits

Figure 27 shows a high level view of the offshore draft order limits for EGL 3 and EGL 4, as well as the routes of the offshore cables.

Our offshore proposals are sited within English waters. The most northerly elements of the English offshore scheme would be located at the boundary of English waters where it meets Scottish waters, and the most southerly elements would be located at mean high water springs at Anderby Creek, at landfall.

The subsea cables forming our offshore proposals will be buried along their length within the exception of infrastructure crossing points and areas where sufficient depth of burial cannot be achieved.

You can read about our offshore proposals on pages 56 – 57.

For more detailed information on our onshore and offshore proposals, please see our PEIR and/or its non-technical summary on our website.

Other NGET projects in the region

Our demand for electricity is rising and the way we generate electricity is increasingly coming from more home-grown renewable sources, like offshore wind. We need to upgrade the grid in order to connect the electricity from where it is being generated to where it is needed.

The grid is a national network and we have to plan its reinforcement as a whole, so EGL 3 and EGL 4 are connected to other proposed new grid developments which are also being consulted on over the course of Spring – Summer 2025.

Alongside this stage 2 consultation for EGL 3 and EGL 4, we are also consulting on Eastern Green Link 5 (EGL 5). Like EGL 3 and EGL 4, it is both primarily **offshore** and its onshore cables are **underground**.

	Connection to EGL 3 and EGL 4	Consultation timelines
Eastern Green Link 5 (EGL 5) EGL 5 is a subsea cable, connecting offshore wind generated in Scotland to power around 2 million homes in the Midlands and South of England.	EGL 5 is consulting alongside this EGL 3 and EGL 4 consultation. They are all separate projects. The projects would share a common landfall at Anderby Creek.	**Stage 1 consultation** Opens 12pm noon Tuesday 13 May, closes 11:59pm Monday 23 June 2025.
Grimsby to Walpole We are proposing to build a new high voltage electricity transmission line and associated works between a new substation in North East Lincolnshire and a new substation in the Walpole area, in Norfolk. We consulted the public on the initial proposals at our first stage of consultation last year.	The Grimsby to Walpole overhead line would route generally in the same direction at the EGL 3 and EGL 4 cable route to the Walpole area. Grimsby to Walpole, EGL 3 and EGL 4 are jointly developing the new Walpole B substation as all three projects require it.	**Stage 2 consultation** June – August 2025
Weston Marsh to East Leicestershire Weston Marsh to East Leicestershire is a proposed network reinforcement, carrying enough electricity into the Midlands to power up to 6 million homes.	The EGL 3 and EGL 4 cable route passes east of Weston Marsh.	**Stage 1 consultation** June – August 2025

Supporting local communities in the region

National Grid firmly believes that communities should be rewarded for hosting new electricity transmission infrastructure, which is essential to delivering homegrown, cleaner, and more affordable power. The Government has introduced recent guidance which sets a clear framework for working in partnership with communities and their representatives to deliver meaningful, legacy benefits.

More details can be found at: **https://www.gov.uk/government/publications/electricity-transmission-network-infrastructure-community-funds**.

The Government has also announced – and is developing – plans to introduce a bill discount scheme for households in close proximity to new transmission infrastructure. Further details on this scheme are being developed by the Government.

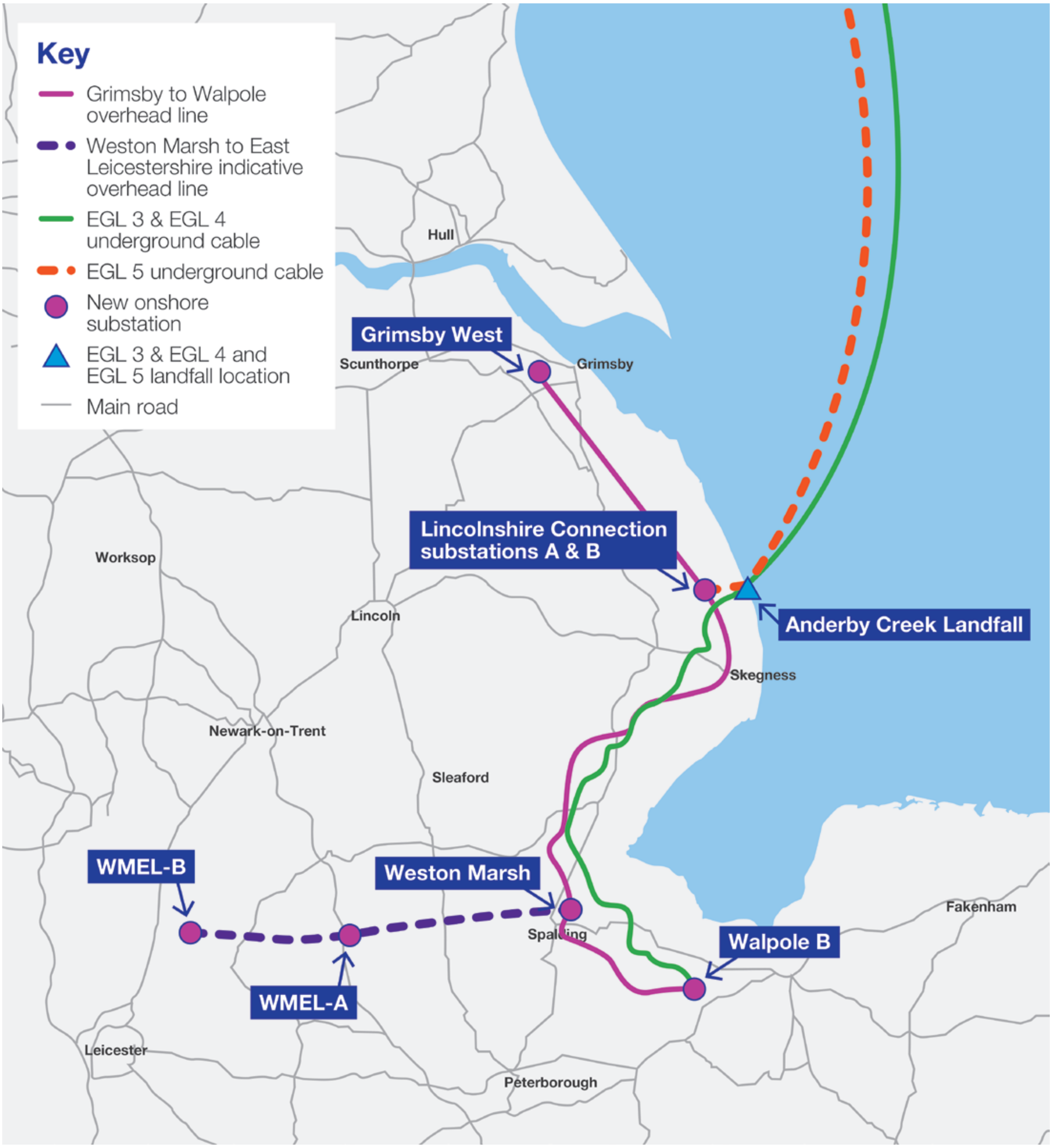


Figure 10 – NGET's projects in the region

Co-ordinating The Great Grid Upgrade locally

Many organisations work together to make sure we can all use the electricity we need, both today, and in the future. The National Energy System Operator (NESO) starts this process by considering future demand and identifying what upgrades to the grid are required.

In developing The Great Grid Upgrade, we have considered how these upgrades can be delivered cohesively, while ensuring maximum benefit for consumers, local communities and the environment. In the region, this has included:

- **Sharing landfall locations:** co-locating the onshore landfall of EGL 3, EGL 4 and EGL 5 all at Anderby Creek
- **Sharing cable corridor routes:** co-locating the EGL 3 and EGL 4 onshore cable routes, reducing potential community and environmental impacts
- **Managing construction impacts:** co-ordinating construction machinery and staff to minimise cumulative impacts of construction
- **Minimising what we build:** connecting EGL3 and EGL 4 to the existing network near Walpole, removing the need for around 90 km of additional overhead line.

As we progress our proposals for reinforcements in the region, we will continue to consider how we can coordinate all projects in more detail where appropriate, for example in our approach to surveys, stakeholder engagement and in our environmental and construction management plans.

Frequently asked questions on local coordination during stage 1 consultation

Why is EGL 3 and EGL 4 underground and offshore, but Grimsby to Walpole is overhead line?

Each network upgrade must be evaluated individually, considering factors like distance, how much power it needs to carry, delivery times, and costs. Using offshore HVDC cables is often the best option when transporting power over long distances, as EGL 3 and 4 must do. Although onshore overhead lines were considered for EGL 3 and EGL 4, an offshore solution from Scotland is more efficient, coordinated, economical, and environmentally friendly.

Resolving the capacity problems in the network using just underground cables would result in three times more underground cables being needed when compared to the overhead line for Grimsby to Walpole. The greater distance required between underground cables means much more land would have to be disrupted compared to using overhead lines.

To read more about Grimsby to Walpole visit their website at **nationalgrid.com/g-w**.

Could EGL 3 and EGL 4's onshore cables be carried on the Grimsby to Walpole pylons?

Grimsby to Walpole will use HVAC for its overhead line. This matches the existing transmission network, so it can connect directly. On the other hand, EGL 3 and EGL 4 would use HVDC. HVAC and HVDC are different technologies and you cannot mix these.

Onshore proposals by location

We have divided the draft order limits (see page 26 for an explanation) for our onshore proposals into the following sections to make it easier to review and provide feedback.

- **Section 1** – Anderby Creek landfall to Candlesby
- **Section 2** – Candlesby to Midville
- **Section 3** – Midville to Frith Bank
- **Section 4** – Frith Bank to Sutterton
- **Section 5** – Sutterton to Moulton Seas End
- **Section 6** – Moulton Seas End to South Holland Drain
- **Section 7** – South Holland Drain to Walpole area
    - **Section 7A** – converter stations option A
    - **Section 7B** – converter stations option B
    - **Section 7C** – converter stations option C
    - **Section 7D** – converter stations option D

Figure 11 shows all the sections together. Our feedback form includes the same sections as below. Please note, these sections differ from the sections we presented at our stage 1 consultation following the refinement of our proposals. Some documents published at this stage 2 consultation, such as the Non-statutory consultation feedback report, cross-reference sections as presented at the stage 1 consultation. This is to explain design changes made in response to feedback received on those sections.

Summaries of the proposals for Sections 1 to 7A, 7B, 7C and 7D, and maps are included on the following pages. An interactive map is also available on our website at **nationalgrid.com/egl3andegl4** and at our public information events.

Draft order limits on roads

Throughout the section maps there are instances where the draft order limits appear on sections of road, sometimes located far away from the main draft order limits. These are to facilitate access for construction activities and represent temporary works to the highway.

Offshore proposals

You can find our offshore proposals, including a map showing the proposed cable routes, draft order limits and constraints, on pages 56 – 57.

We welcome comments on all aspects of our proposals, particularly the areas that are most important and relevant to you and your community. Your feedback will be carefully considered as we refine our proposals further.

Legend

- Walpole B substation
- Converter station options A-D combined
- Draft order limits (underground cables within)
- Existing 400kV overhead line
- Existing 132kV overhead line

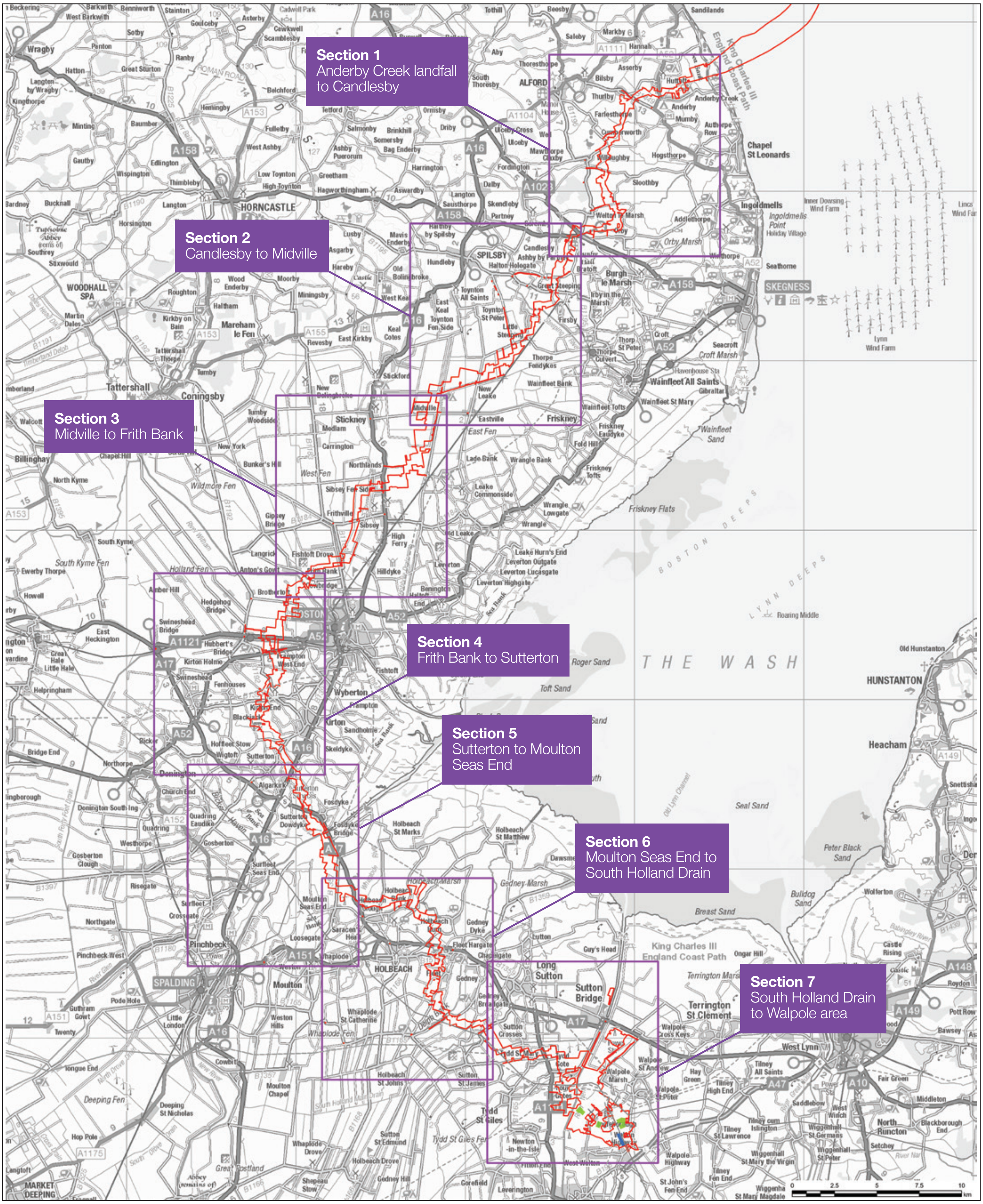


Figure 11 – Overview of our onshore proposals in England

Section 1
Anderby Creek landfall to Candlesby

Key proposed infrastructure in Section 1 includes:

- underground cables: HVDC
- transition joint bays.

From the proposed Anderby Creek landfall, the underground cables would route west, travelling south of Huttoft and onto the B1449. After crossing the B1449, the cables would travel south past Welton le Marsh before crossing the A1028 and A158 near Candlesby. We would uitilise construction methods that would reduce potential impacts to the part of the Lincolnshire Wolds National Landscape that our cables would traverse.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Our proposed cable landfall is where the offshore and onshore elements of the project would meet. The offshore and onshore cables would be connected at buried transition joint bays located on land above the mean high water springs (see page 23 for more information on transition joint bays).

To provide feedback on this section of our proposals, including the landfall and transition joint bays, please see question 1 on our feedback form.

Legend

- Site of Special Scientific Interest
- National Landscape
- Ancient Woodland
- Special Protection Areas
- Indicative cable alignment
- Indicative transition joint bay siting area
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

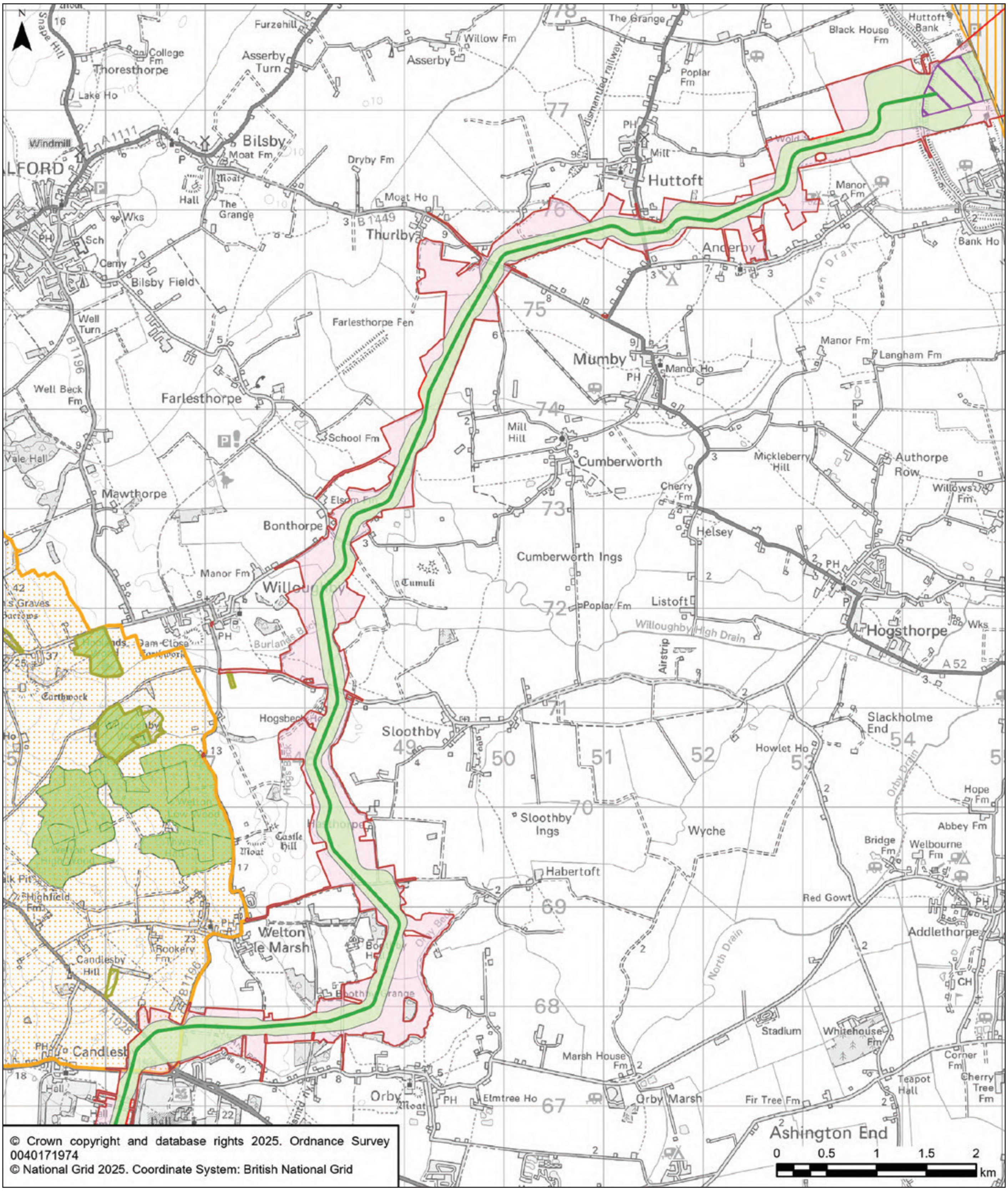


Figure 12 – Map showing Section 1

Section 2
Candlesby to Midville

Key proposed infrastructure in Section 2 includes:

- underground cables: HVDC.

From Candlesby, the cables would route south past Great Steeping before crossing Steeping River. From the river, they would route east of Little Steeping before travelling southwest, parallel to Bell Water Drain before crossing Hobhole Drain and then crossing Bell Water Drain and continuing south to Midville.

To provide feedback on this section of our proposals, please see question 2 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Legend

- Existing 132kV overhead line
- Site of Special Scientific Interest
- National Landscape
- Indicative cable alignment
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

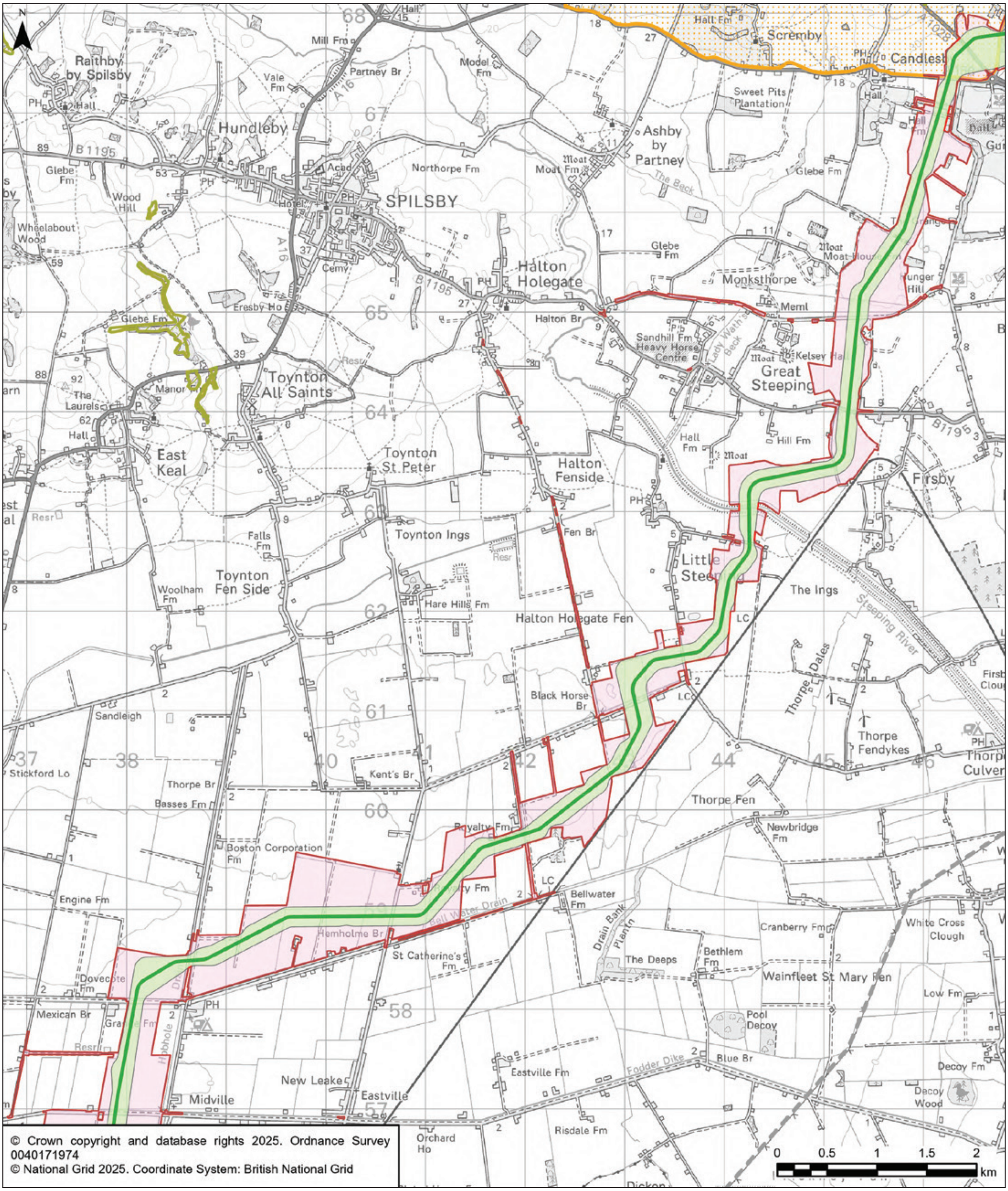


Figure 13 – Map showing Section 2

Section 3
Midville to Frith Bank

Key proposed infrastructure in Section 3 includes:

- underground cables: HVDC.

This section starts at Midville from which the cables would route south before heading west and crossing the A16 in between Northlands and Sibsey. The cables would then continue south before again heading west, crossing the West Fen Drain and Frith Bank.

We are proposing indicative alternative cable route options at two crossing points in this section, one where the route crosses the A16 north of Sibsey, and one where it crosses the West Fen Drain north of Cowbridge. We are proposing these alternative cable routes to enable flexibility in the later detailed design stages of the projects.

To provide feedback on this section of our proposals, please see question 3 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Legend

- Existing 132kV overhead line
- Indicative cable alignment
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

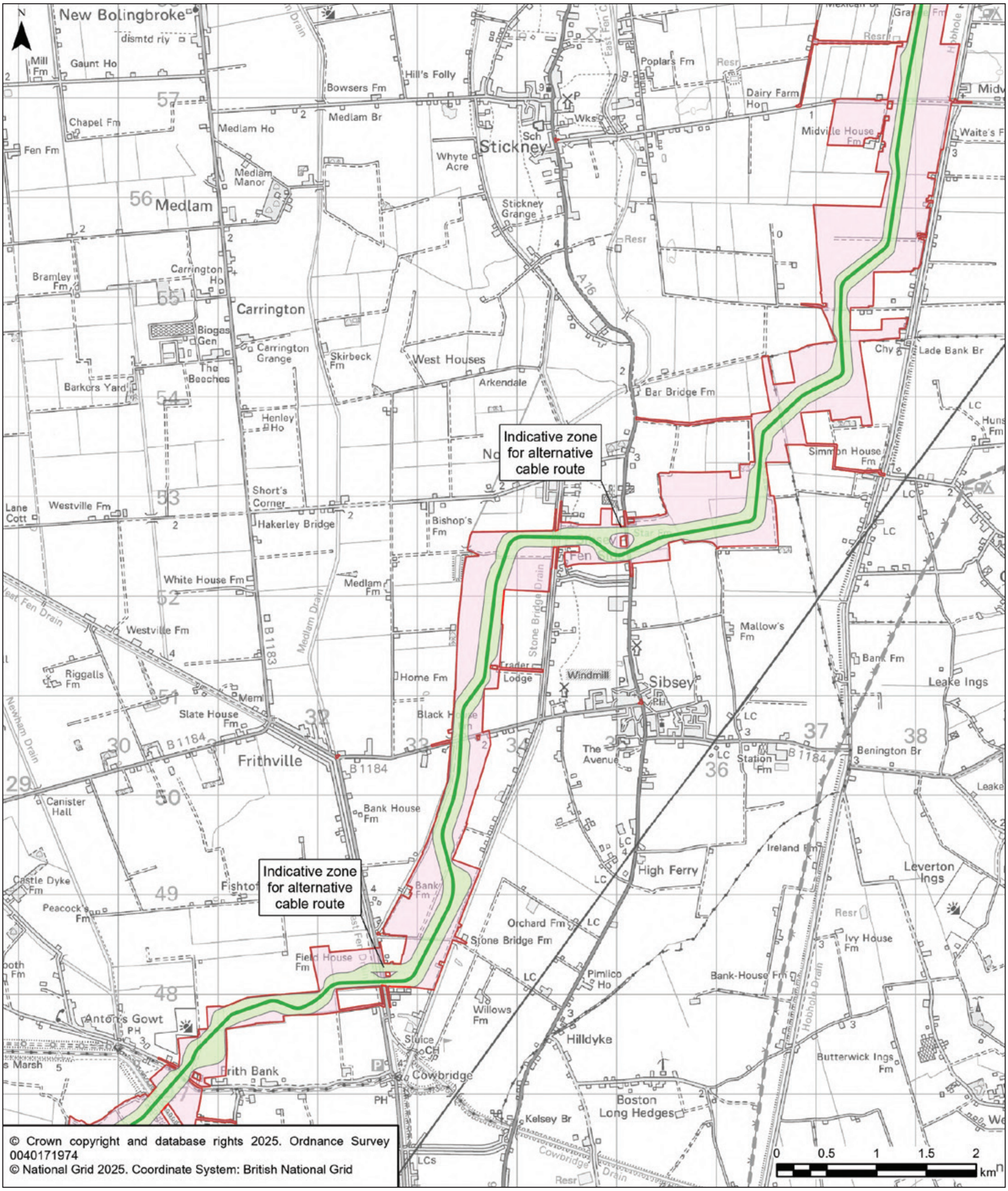


Figure 14 – Map showing Section 3

Section 4
Frith Bank to Sutterton

Key proposed infrastructure in Section 4 includes:

- underground cables: HVDC.

From Frith Bank our cables would route south, crossing the River Witham and continuing south to the A1121 and South Forty Foot Drain. We are proposing an indicative alternative cable route option to cross the A1121 and South Forty Foot Drain, shown on the map to the west of the cable alignment. We are proposing this to enable flexibility in the later detailed design stages of the projects.

After crossing the A1121 and South Forty Foot Drain, the cables would then route south, crossing the A52 and travelling to the west of Kirton End. The cables would continue to a point east of Sutterton, crossing the A16.

To provide feedback on this section of our proposals, please see question 4 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Legend

- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

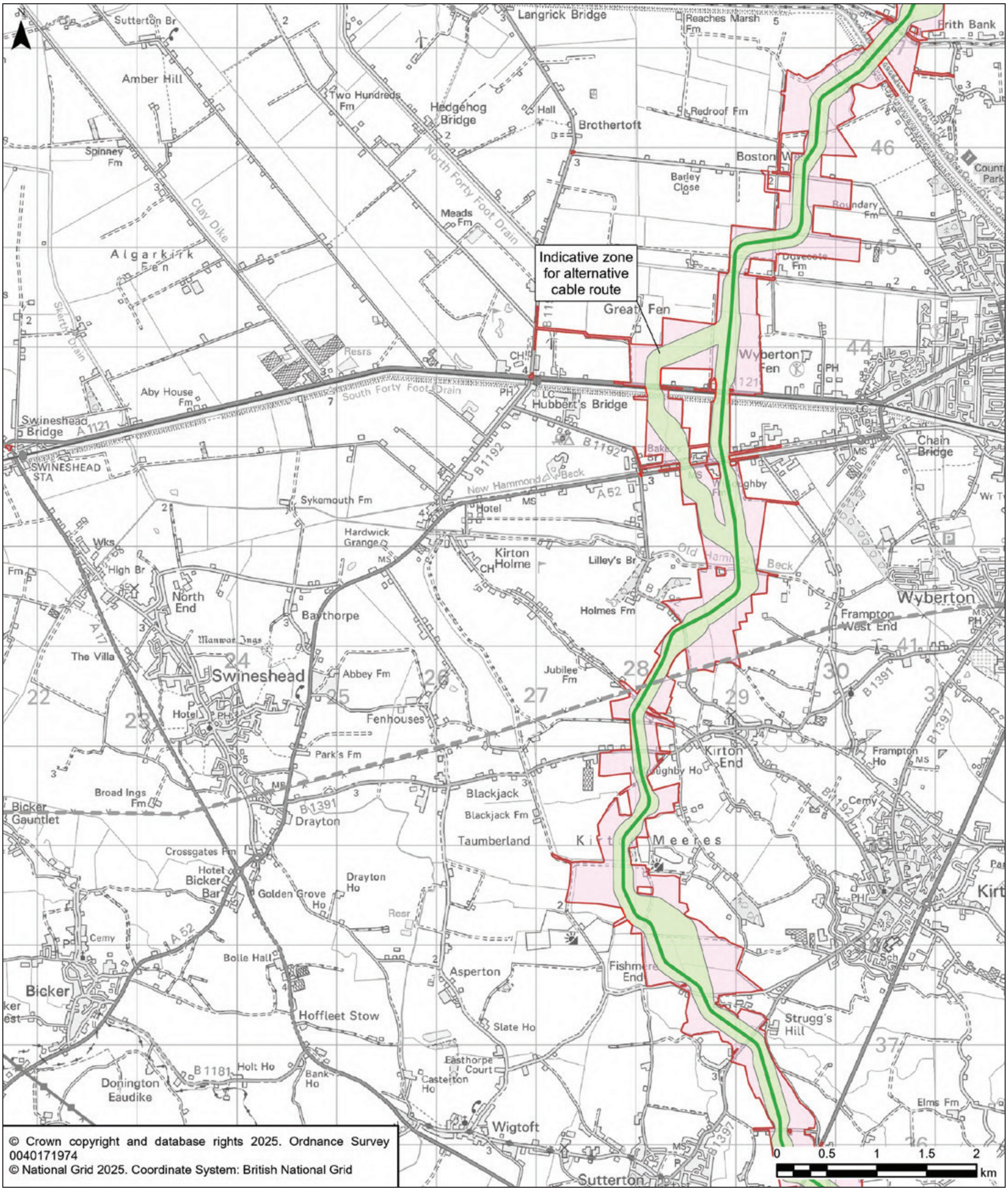


Figure 15 – Map showing Section 4

Section 5
Sutterton to Moulton Seas End

Key proposed infrastructure in Section 5 includes:

- underground cables: HVDC.

From the A16 outside Sutterton, the cables would route southeast, crossing the A17 outside Fosdyke and then crossing the River Welland. From the south bank of the River Welland, the cables would continue south to a point north of Moulton Seas End, before travelling east and crossing the A17.

To provide feedback on this section of our proposals, please see question 5 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Legend

- Existing 400kv overhead line
- Existing 132kv overhead line
- Existing 400kV pylon
- Site of Special Scientific Interest
- Important Bird Areas (GB)
- Indicative cable alignment
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

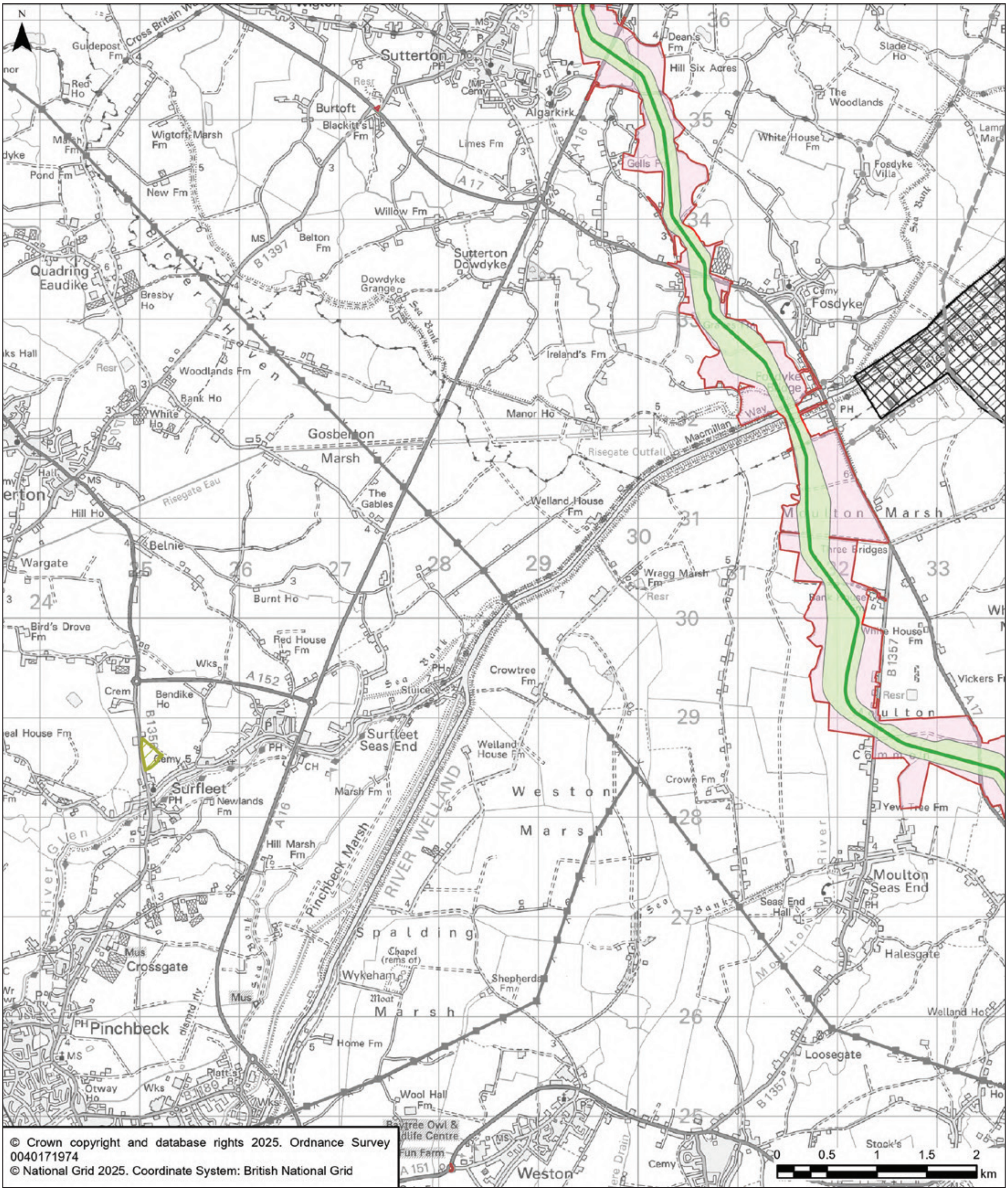


Figure 16 – Map showing Section 5

Section 6
Moulton Seas End to South Holland Drain

Key proposed infrastructure in Section 6 includes:

- underground cables: HVDC.

This section starts at the A17 to the north east of Moulton Seas End and then runs east and south around Saracen's Head, Holbeach Clough and Holbeach Bank. The cables would then travel south crossing the A17 in between Holbeach and Fleet Hargate, before continuing south and crossing Delph Bank and heading east to South Holland Drain.

To provide feedback on this section of our proposals, please see question 6 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Legend

- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Indicative zone for underground cable assets
- Draft order limits
- Construction and working areas. Refer to General arrangement plans for further details

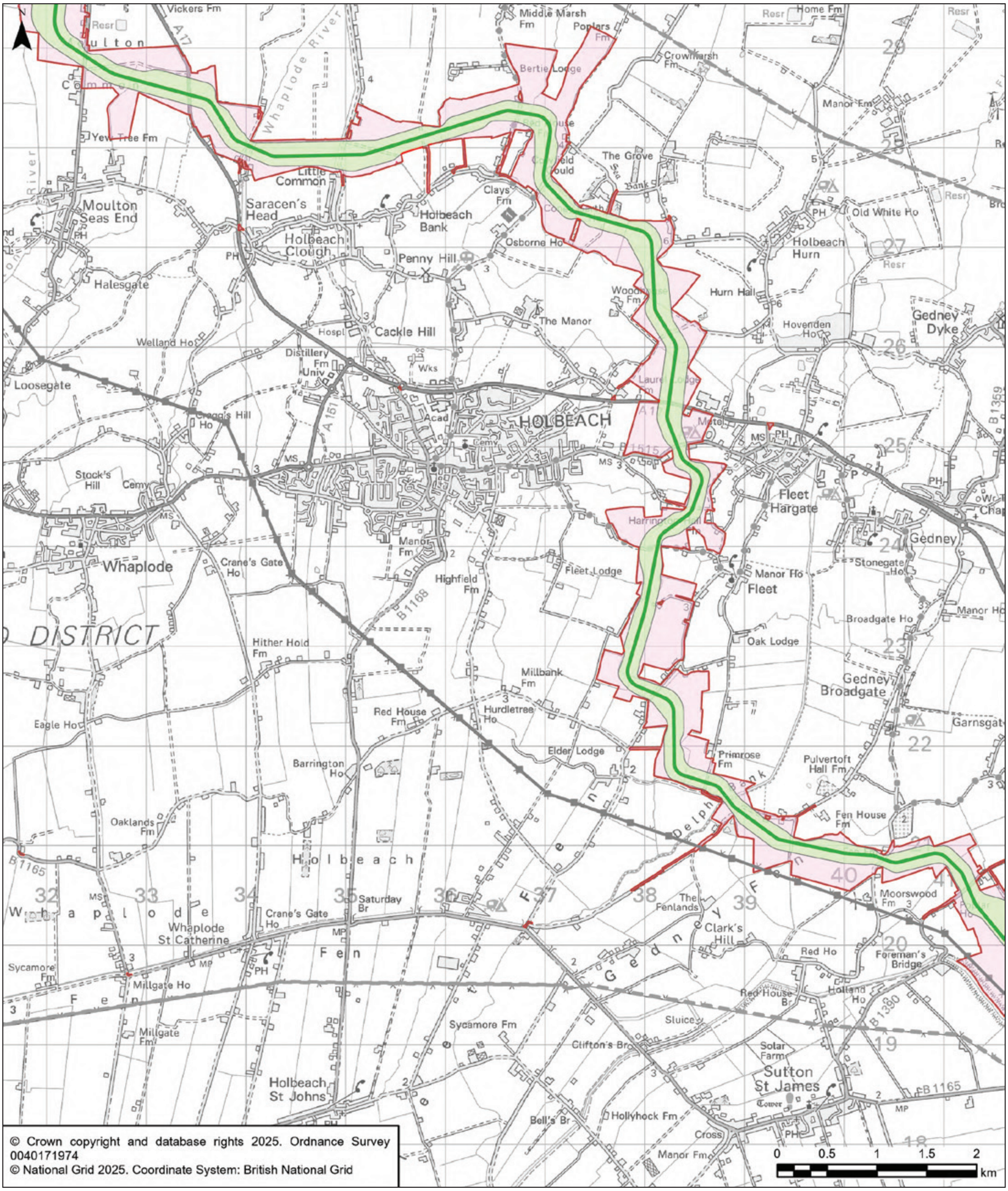


Figure 17 – Map showing Section 6

Section 7
South Holland Drain to Walpole area

Key proposed infrastructure in Section 7 includes:

- underground cables: both HVDC and HVAC
- two converter stations in the Walpole area
- one substation in the Walpole area.

This section runs from South Holland Drain before heading east past Tydd St Mary and crossing the A1101. The route then splits in two to the north of Tydd Gote.

One cable route option, would cross the River Nene to the north east of Foul Anchor and continue to the Walpole area and the sites of the proposed converter stations and substation.

An indicative alternative cable route option would cross the North Level Main Drain and continue past Foul Anchor to cross the River Nene at two possible locations. The route would then continue onto the sites of our proposed converter stations and substation. This alternative route has been proposed to enable flexibility in the later detailed design stages of the projects in response to new solar developments potentially affecting the original route proposed at our stage 1 consultation.

Underground HVDC cables would run to the converter stations, while underground HVAC cables would connect the converter stations to the Walpole B substation.

Options for the locating of converter stations

Within this section of our proposals, we have four possible options – Options A, B, C and D – for the siting of our two proposed converter stations. Each option has different cable routes to the converter stations and onward to the Walpole B substation.

We have selected four converter siting options to allow landowners and local residents to provide feedback and further consideration of the wider environmental and engineering constraints, before deciding which option will be presented within the DCO.

In these four options, our substation, Walpole B, only has one proposed location.

See figures 19, 21, 23 and 25 for the location of each of the converter station options (along with the single substation location) and the respective cable routes to the converter stations and onward to the substation.

Figures 18, 20, 22 and 24 show an illustrative image of what the converter stations and Walpole B substation could look like. The final design of the converter stations would be confirmed during the later detailed design stage.

You can also learn more about these options by reading our Design development report.

Supplementary works to the existing 400 kV overhead line

To connect the new Walpole B substation into the existing transmission network, it will be necessary to install a short length of new overhead line. This will involve the removal of two existing pylons and the installation of four new pylons.

Temporary quay on the River Nene

We're exploring opportunities for the transportation of equipment and materials via the River Nene. See Chapter 4 in the PEIR and Non-technical summary for more detail and the General arrangement plans for where this is proposed to be located.

To provide feedback on the following sections 7A – 7D, please see questions 7 – 10 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed section maps, an interactive map and General arrangement plans.

Section 7A
Converter stations option A

The converter stations would be sited in a split arrangement. One of the converter stations would be located to the south east of settlement in Ingleborough and the other converter station would be located to the west of West Drove North, east of the existing operational Rose and Crown Farm Solar Farm. At their closest point, the indicative zones for the converter stations are approximately 700 m apart therefore, subject to further studies, the indicative converter station siting would be 700 m apart as a minimum. The proposed location of Option A is shown in figures 18 and 19.

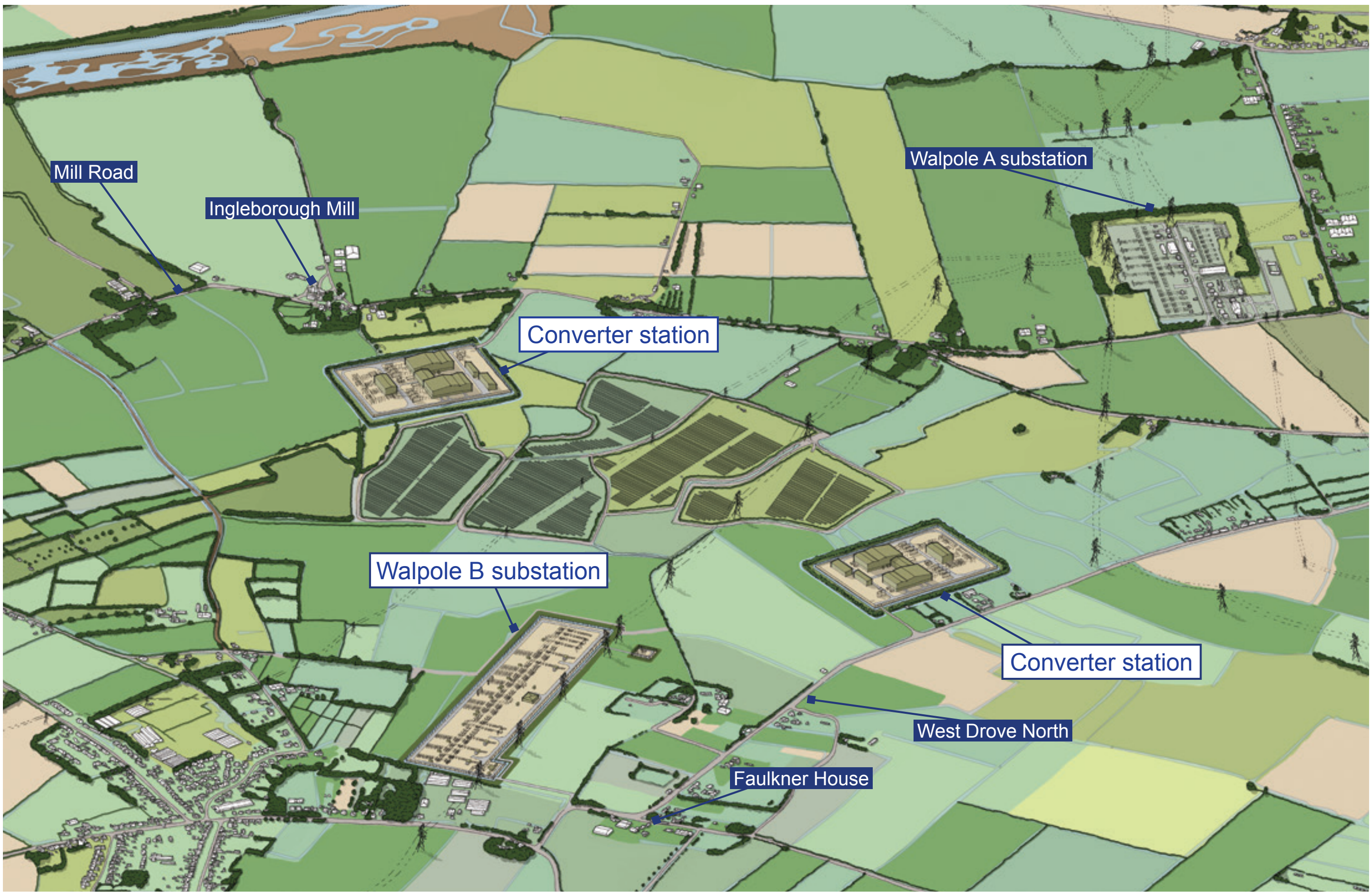


Figure 18 – Illustrative image of what option 7A could look like

Legend

- Draft order limits
- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Existing NGET overhead line
- New NGET overhead line
- Temporary overhead line
- Existing NGET pylon – 4ZM Burwell – Walpole
- Existing pylon to be dismantled – 4ZM Burwell – Walpole
- New NGET pylon
- Temporary pylon
- New NGET gantry
- Indicative zone for converter stations
- Indicative zone for underground cable assets
- Construction and working areas. Refer to General arrangement plans for further details
- Indicative Walpole B substation
- Indicative cable sealing end compound (CSEC)
- Indicative converter station siting

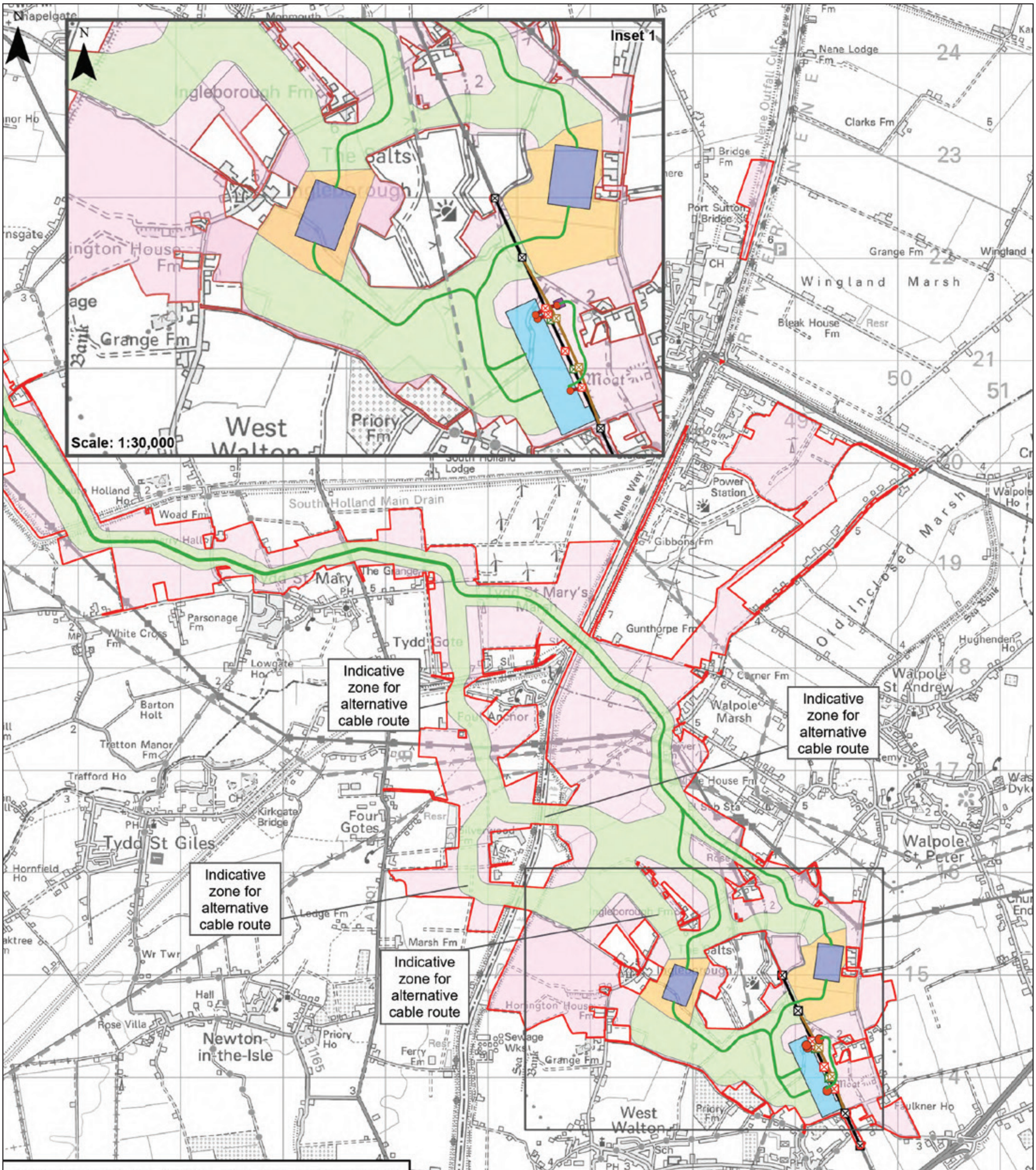


Figure 19 – Map showing Section 7A

Section 7B
Converter stations option B

Both converter stations would be sited together to the west of West Drove North, partially within the boundary of, and east of, the Rose and Crown Farm Solar Farm. The proposed location of Option B is shown in figures 20 and 21.

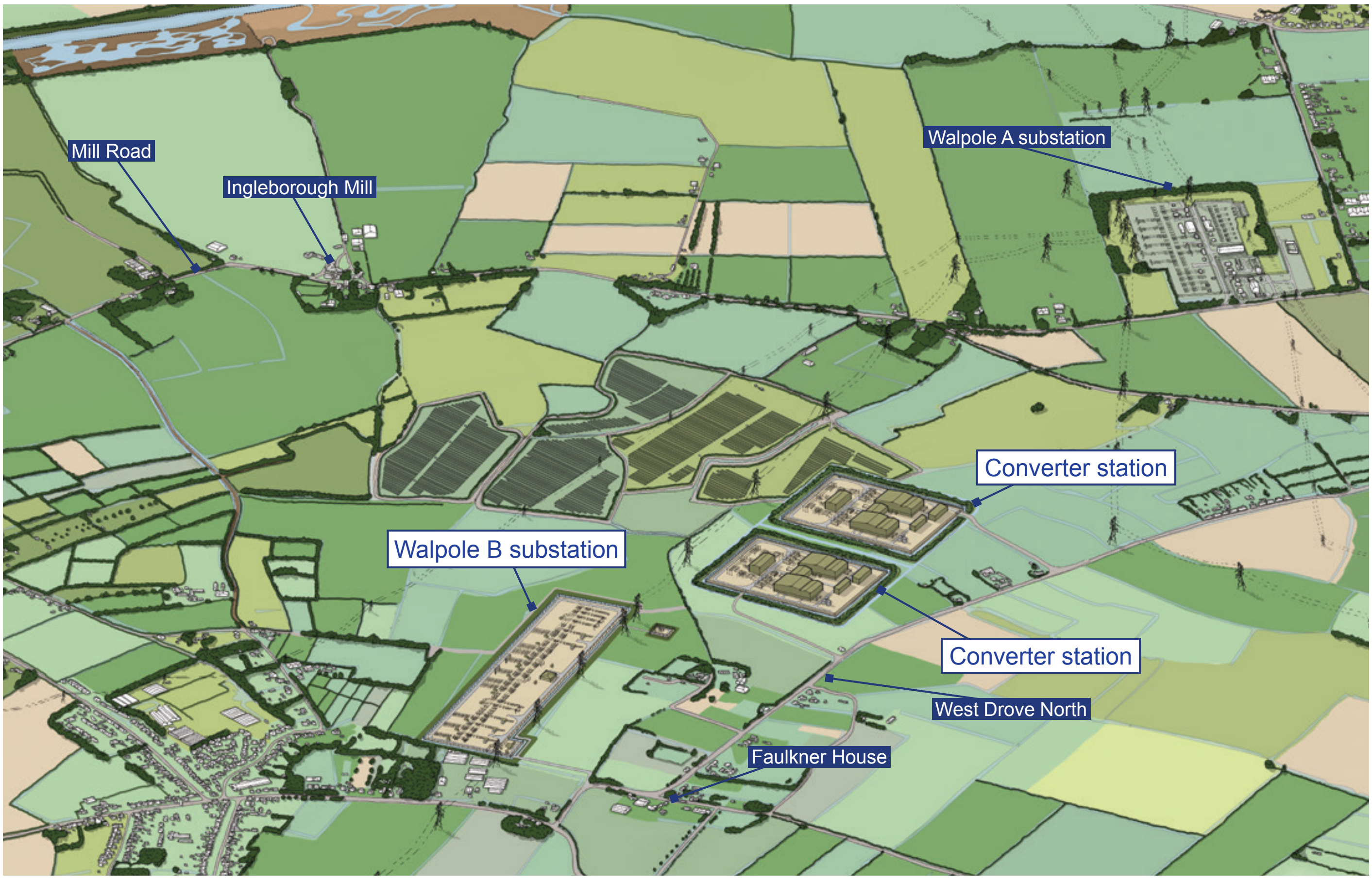


Figure 20 – Illustrative image of what option 7B could look like

Legend

- Draft order limits
- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Existing NGET overhead line
- New NGET overhead line
- Temporary overhead line
- Existing NGET pylon – 4ZM Burwell – Walpole
- Existing pylon to be dismantled – 4ZM Burwell – Walpole
- New NGET pylon
- Temporary pylon
- New NGET gantry
- Indicative zone for converter stations
- Indicative zone for underground cable assets
- Construction and working areas. Refer to General arrangement plans for further details
- Indicative Walpole B substation
- Indicative cable sealing end compound (CSEC)
- Indicative converter station siting

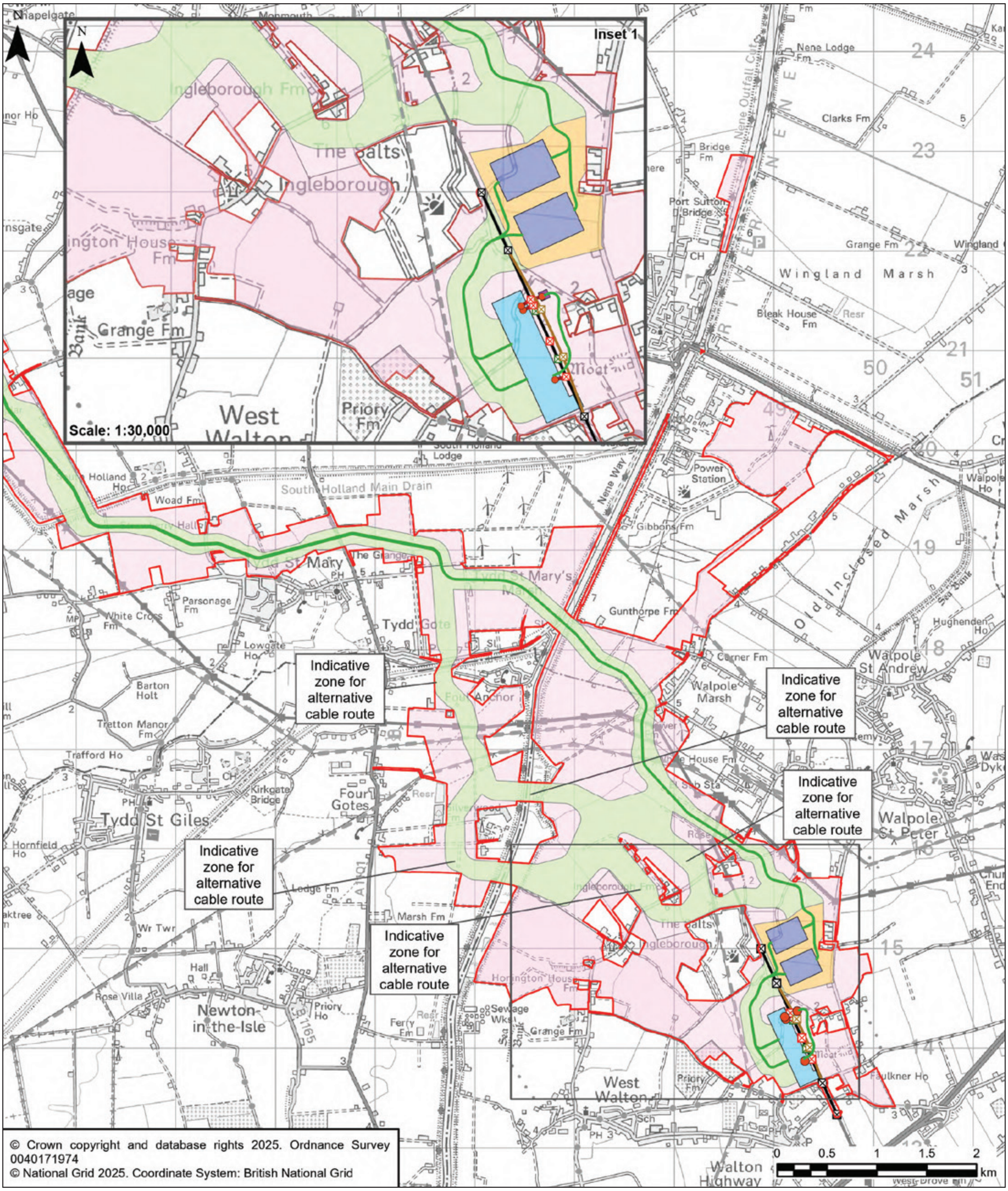


Figure 21 – Map showing Section 7B

Section 7C
Converter stations option C

The converter stations would be sited in a split arrangement. One converter station would be located to the west of West Drove North, east of the Rose and Crown Farm Solar Farm and the other converter station would be located to the east of the River Nene, northwest of the settlement at Ingleborough. At their closest point, the indicative zones for the converter stations are approximately 1.8 km apart therefore, subject to further studies, the indicative converter station siting would be 1.8 km apart as a minimum. The proposed location of Option C is shown in figures 22 and 23.

Figure 22 – Illustrative image of what option 7C could look like

Legend

- Draft order limits
- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Existing NGET overhead line
- New NGET overhead line
- Temporary overhead line
- Existing NGET pylon – 4ZM Burwell – Walpole
- Existing pylon to be dismantled – 4ZM Burwell – Walpole
- New NGET pylon
- Temporary pylon
- New NGET gantry
- Indicative zone for converter stations
- Indicative zone for underground cable assets
- Construction and working areas. Refer to General arrangement plans for further details
- Indicative Walpole B substation
- Indicative cable sealing end compound (CSEC)
- Indicative converter station siting

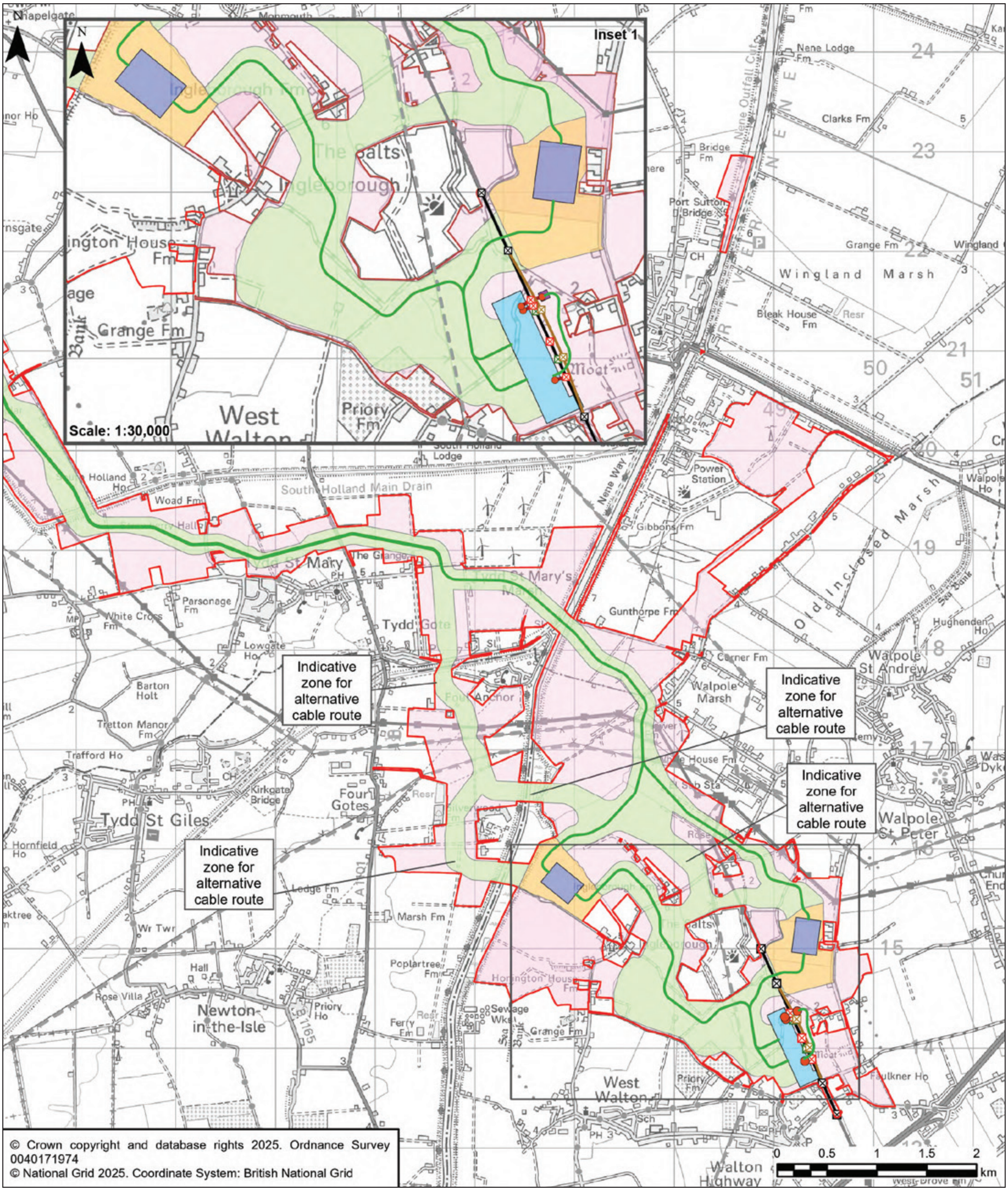


Figure 23 – Map showing Section 7C

Section 7D
Converter stations option D

The converter stations would be sited in a split arrangement. One converter station would be located to the east of the settlement in Ingleborough, and the other converter station would be located to the east of the River Nene, northwest of the settlement at Ingleborough. At their closest point, the indicative zones for the converter stations are approximately 580 m apart therefore, subject to further studies, the indicative converter station siting would be 580 m apart as a minimum. The proposed location of Option D is shown in figures 24 and 25.

Figure 24 – Illustrative image of what option 7D could look like

Legend

- Draft order limits
- Existing 400kV overhead line
- Existing 132kV overhead line
- Existing 400kV pylon
- Indicative cable alignment
- Existing NGET overhead line
- New NGET overhead line
- Temporary overhead line
- Existing NGET pylon – 4ZM Burwell – Walpole
- Existing pylon to be dismantled – 4ZM Burwell – Walpole
- New NGET pylon
- Temporary pylon
- New NGET gantry
- Indicative zone for converter stations
- Indicative zone for underground cable assets
- Construction and working areas. Refer to General arrangement plans for further details
- Indicative Walpole B substation
- Indicative cable sealing end compound (CSEC)
- Indicative converter station siting

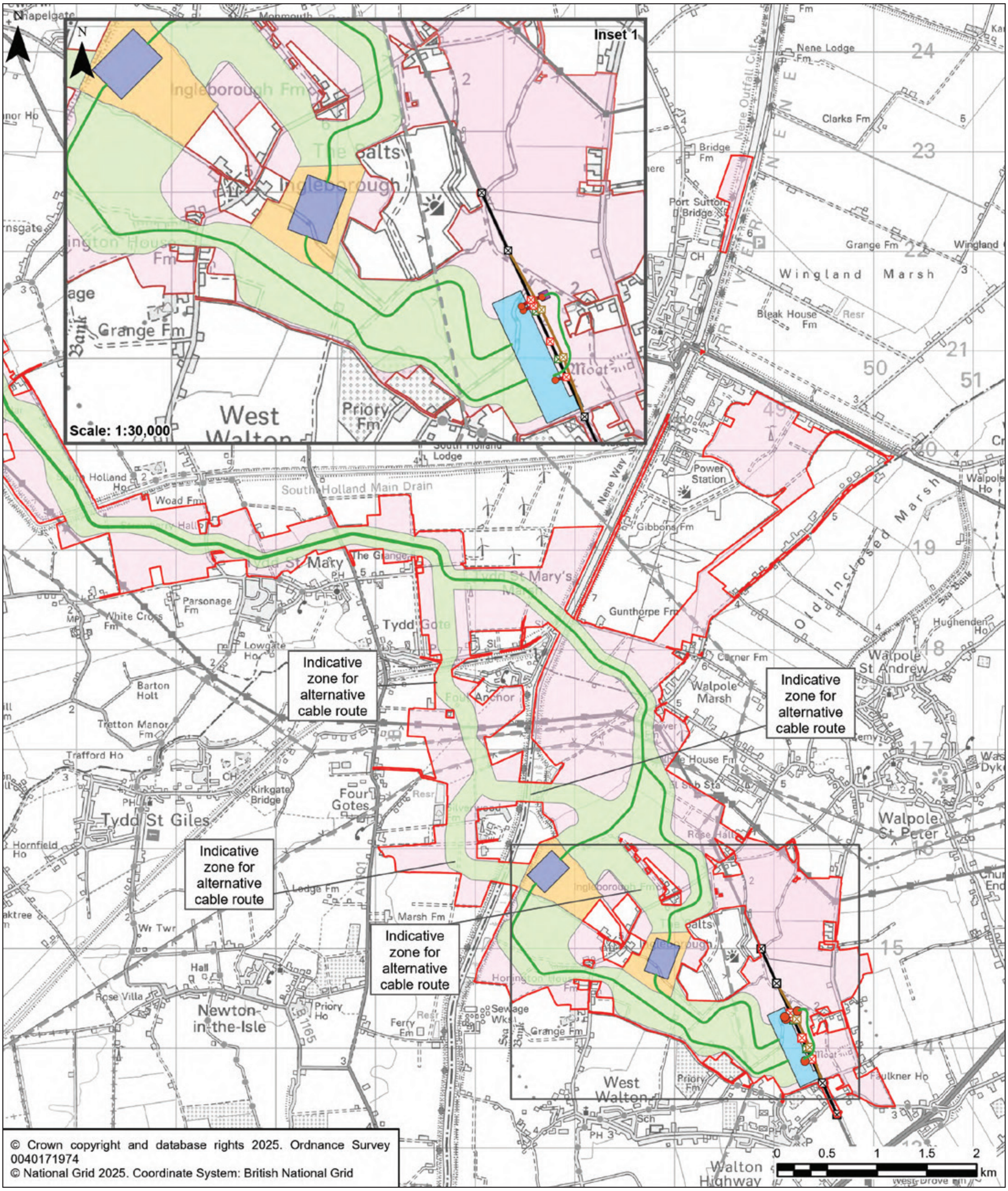


Figure 25 – Map showing Section 7D

Offshore proposals

Infrastructure within our offshore proposals includes:

- subsea cables: HVDC.

We will be seeking consent for each project's offshore proposals in English waters via the development consent order (DCO) process, together with the onshore elements of EGL 3 and EGL 4 in England. The DCO will include a deemed marine licence for each of the projects regarding the offshore works.

SSEN Transmission and SP Energy Networks are responsible for obtaining the relevant consents in Scottish waters, for EGL 3 and EGL 4 respectively.

We have considered and assessed a number of options for the offshore route corridors. These options have been narrowed down to the cable routes shown in figure 27.

EGL 3's offshore cables would be approximately 580 km in length and extend from Sandford Bay, Peterhead in Scotland to a joint landfall with EGL 4 at Anderby Creek on the Lincolnshire coastline in England. Approximately 436 km of this would be in English waters.

EGL 4's offshore cables would be approximately 530 km in length and extend from Kinghorn, Fife in Scotland to the joint EGL 3 and EGL 4 landfall at Anderby Creek. Approximately 425 km of this will be in English waters.

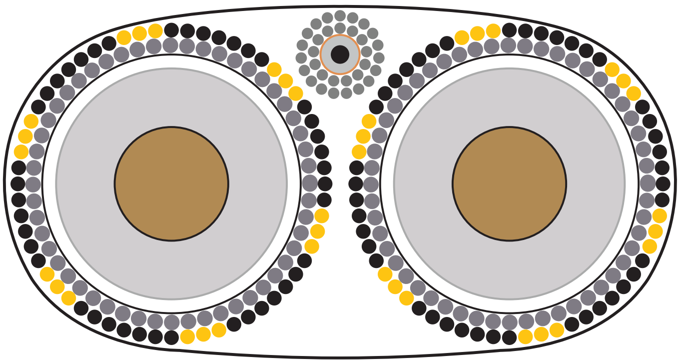


Figure 26 – Example Illustration of bundled offshore HVDC cable with fibre optic cable (illustration shows double wire armoured sheathing and is indicative only)

Offshore cables

Our offshore HVDC cables would be buried along the length of the route with the exception of infrastructure crossing points and areas where sufficient depth of burial cannot be achieved.

EGL 3 and EGL 4 would each have a set of two HVDC cables. The cables would be installed for each project as a single bundle of two HVDC cables (see figure 26) laid in a single trench. As with onshore cables, a fibre optic cable would also be used for monitoring purposes. The cables would be protected by heavy steel wire to protect them from external damage during construction and operation.

How we chose our proposed routes

The proposed offshore routes for EGL 3 and EGL 4 have been carefully designed to avoid ecologically important areas and minimise interactions with designated sites as much as possible. This has been balanced with finding routes that are technically feasible, as well as considering infrastructure and activities for other industries and sectors.

The subsea cable and associated infrastructure would be installed within the draft order limits, with the exact alignment of the cables informed by further offshore surveys and statutory consultation feedback. Our routes have been developed through consultation with offshore stakeholders and technical and ecological surveys.

For more detailed information on our offshore proposals, please see our PEIR and/or its non-technical summary available on our website.

To provide feedback on our offshore proposals, please see questions 11 – 12 on our feedback form.

Scan this QR code to visit our website, where you will be able to view more detailed maps.

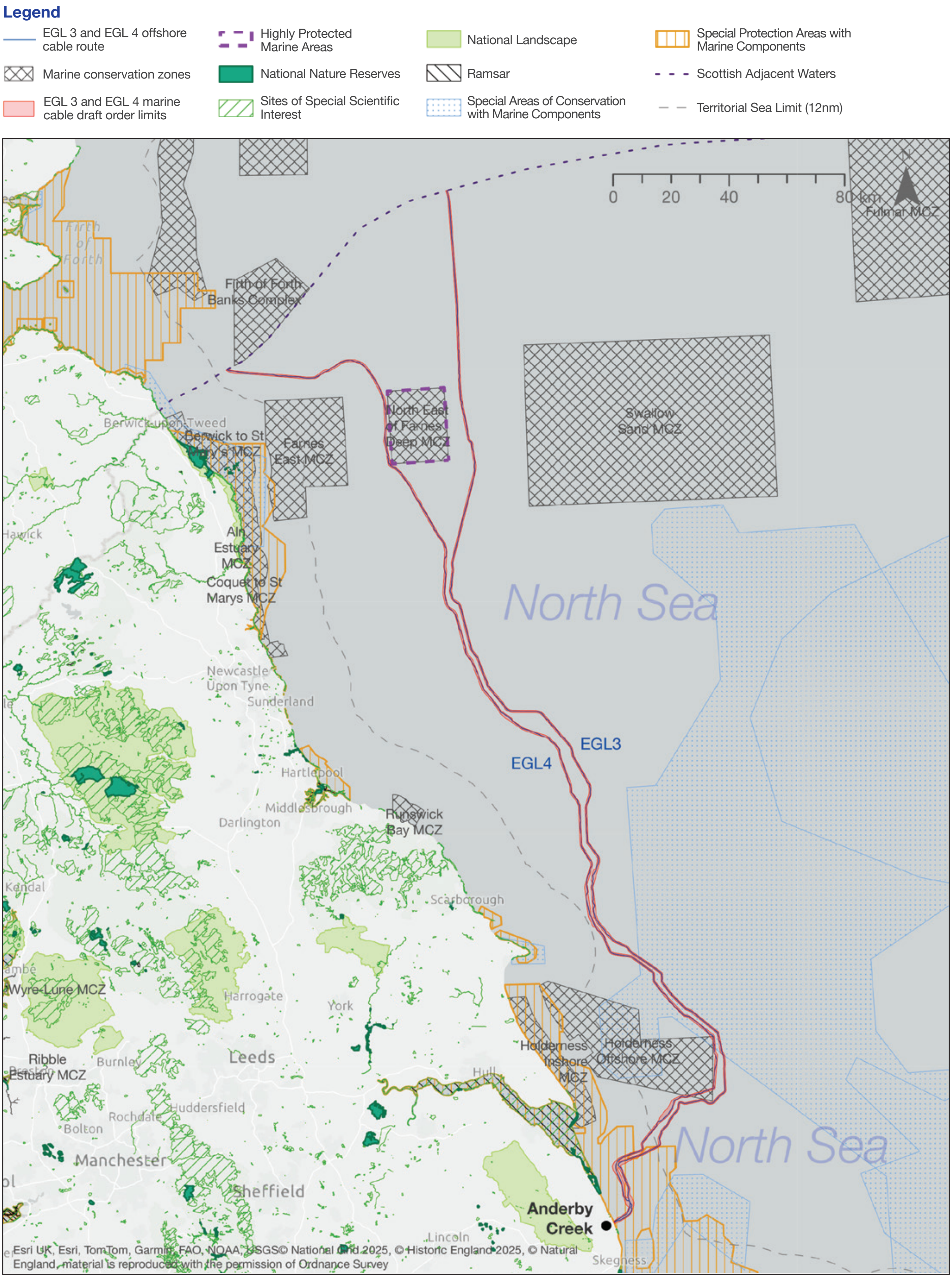


Figure 27 – Map showing EGL 3 and EGL 4's offshore cable routes, draft order limits and constraints

Construction

Should consent be granted for EGL 3 and EGL 4, we would expect construction to start in 2029.

Onshore construction

To construct EGL 3 and EGL 4, we would need a range of temporary and permanent facilities and accesses.

Our proposals include works associated with preparing the land for construction activity, such as diversions of third-party assets (such as utilities and services) and drainage works needed to ensure that land is not impacted by flooding or other damage throughout the construction and operation of EGL 3 and EGL 4.

The construction phase would involve a range of temporary construction activities, including working areas for construction equipment and machinery, site offices, storage, accesses, bellmouths, and haul roads, as well as creating crossing points across local watercourses and the diversion of public rights of way.

For more detailed information on onshore construction, please see our PEIR and its non-technical summary available on our website.

Construction videos

You can also see animations of how we install underground cable and construct converter stations on our website.

Figure 28 – The ducted method of cable laying

How we install onshore underground cables

Before we install electricity cables on land, we undertake extensive technical studies and surveys and work with landowners to carefully plan the most appropriate route, ensuring that the cables can be installed safely and with minimum disruption.

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

Our cables would be installed in trenches, alongside a temporary road built for construction, called a haul road. First, we carefully remove the topsoil and store it alongside the trenches so we can replace it after the work is finished. Then we dig the number of trenches we need on both sides of the access road.

Cables are normally buried with a minimum of 0.9 m of material cover above their protective tiles but could be buried deeper depending on the outcome of soil Agricultural Land Classification (ALC), drainage and ground investigation surveys. The trenches are dug in lengths of up to 1500 m. We then lay a bed of cement bound sand along the length of each trench. This helps manage any heat created by the electricity cables. Next, we either lay the cables on the cement, or install ducts (see figure 28) that run the length of each trench. Ducts are essentially tubes that house the cables, and each cable must have its own duct.

At the end of each trench, we dig a wider area that we call the joint bay. A joint bay is where two lengths of cable are joined together. If we are using ducts the cables are then pulled through from one joint bay to the other, using a wire attached to the end of the cable which unspools from a large cable drum.

Once the ducts have been installed, or when the cables have been laid in their individual trenches, we will return the subsoil and topsoil back from where it was removed.

Onshore cable installation – trenchless

Trenchless methods, such as such as horizontal directional drilling (HDD) (see figure 29), micro-tunnel and auger bore, allow us to install cables while minimising interaction with the land surface, which reduces the impact on wildlife, traffic, and local communities.

Use of HDD or other trenchless methods depends on local conditions and any obstacles we need to overcome.

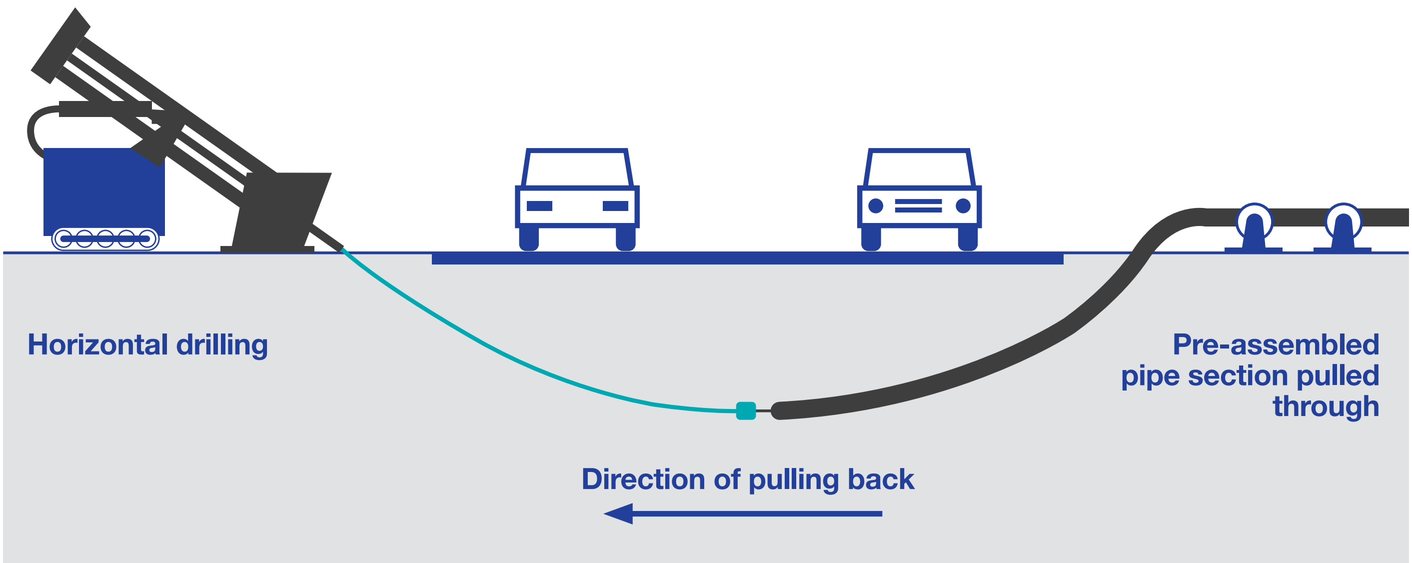


Figure 29 – Diagram showing typical HDD method

Converter station construction

First, we clear and level the area, then we excavate the earth to make way for the foundations – sometimes this earth is used to landscape the surrounding terrain. All building structures are built with steel beams. We finish the construction by cladding the buildings in line with the design specification and approach agreed during the planning process, this is informed by the characteristics of the surrounding area and feedback received.

Trees, hedges, and shrubs may be planted on the landscaped area surrounding the site to help screen the converter station from view.

Substation construction

First, we clear and level the area, then we excavate the earth to make way for the foundations – sometimes this earth is used to landscape the surrounding terrain. All on-site building structures will be designed to accommodate the substation's technical requirements, using air insulated switchgear (AIS) technology.

We finish the construction by cladding any buildings in line with the design specification and approach agreed during the planning process. Trees, hedges, and shrubs may be planted on the landscaped area surrounding the site to help screen the substation from view.

An electrical connection is installed between the substation and the National Grid network – this could be a cable or an overhead line.

For overhead lines, first our construction areas are fenced off to keep the public and livestock out of harm's way. Next, long concrete pillars are driven deep into the ground and topped with a layer of reinforced concrete. This forms the foundations that will support the pylon. Machinery, pre-mixed concrete and steelwork for the foundations will be delivered to the construction site in heavy goods vehicles (HGVs). Pylons will be assembled in sections. Pylons are made up of many beams and struts and can be part assembled at ground level before being lifted into place by a crane. Once the overhead lines have been attached, temporary roads and working areas will be removed and the ground reinstated.

Haul road construction

A temporary haul road is a type of road constructed specifically for use during construction to facilitate the movement of materials, machinery, and people within the site. These roads are designed to handle heavy construction traffic and are typically removed after we've finished the work.

The first stage of haul road construction is to carefully remove the topsoil and store it in line with a bespoke soil management plan. We undertake tests to determine ground conditions before installing drainage. We then lay a membrane on the ground, before installing stone to the required depth. The stone is then rolled and compacted. Finally, a hardwearing and weather resistant top layer is applied and compacted to a smooth layer.

Bellmouth

A bellmouth is a bell-shaped entrance to a proposed track or road from the public highway. These ensure that construction vehicles can safely leave and join the public highway.

Construction compounds

Construction compounds are temporary areas that we use to house temporary offices, staff welfare facilities and to store equipment. They have a hard-standing surface, are secured by perimeter fencing and will be removed at the end of the projects.

Offshore construction

How we lay new subsea cables out at sea

The cables themselves are made from reinforced material and are buried beneath the seabed to be further protected from shifting seabed sediments, tidal movements and ship anchors. The cables are loaded onto large reels on a specialist cable laying vessel.

We use two methods to lay cables under the seabed (see figure 30):

- simultaneous lay and burial, where one vessel will lays and buries the cables
- post lay burial, where one vessel will lay the cables and a second follows behind and buries them.

The seabed surface conditions determine which method is used.

If our offshore cable crosses existing cables or pipelines, then a concrete mattress can be laid on top of the existing cable before the new cable is laid on top. Rock protection can then be used in discrete locations to cover it for protection. Rock can also be used to protect the cables if we have been unable to bury it to an optimal depth due to local ground conditions.

How we make cable landfall

When cables come ashore, our preference is to use a trenchless construction method, such as Horizontal Directional Drilling (HDD) to reduce disruption and potential environmental impacts (see figure 31). Consultation with key stakeholders, and ground investigation works are required to confirm whether this is possible.

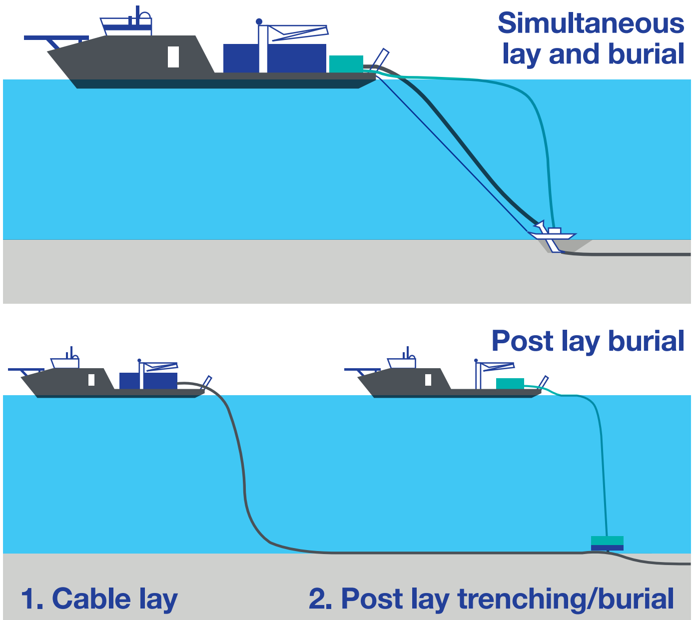


Figure 30 – Methods of laying cables

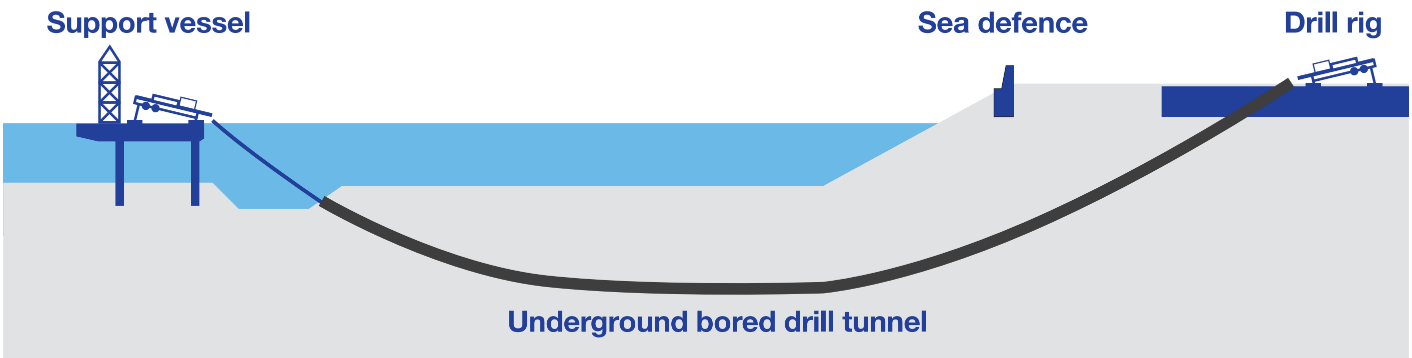


Figure 31 – Showing how we make landfall via HDD

For more information on offshore construction, please see our PEIR.

Managing and mitigating effects

Feedback from all stages of consultation, along with outputs from our ongoing technical and environmental assessments, will help us further refine our proposals for EGL 3 and EGL 4 as we prepare our DCO application. We use best practice environmental impact assessment techniques to assess possible effects of our works and identify opportunities for mitigation measures and for delivering biodiversity net gain.

Preliminary environmental information report (PEIR)

Our PEIR considers the likely significant effects of our proposals on the environment, along with the measures we are proposing to mitigate these impacts. The PEIR, along with a non-technical summary of its findings, is available from our project's website at **nationalgrid.com/egl3andegl4**.

Protecting the environment during construction

Our detailed environmental surveys and assessments have helped us to understand potential effects and how they can be avoided, reduced or mitigated during construction and operation. Where avoidance and mitigation are not possible, we would offset – or compensate for – effects by planting or enhancing the environment near to the area of works. We are working closely with local authorities and relevant stakeholders to identify what kind of enhancement is most suitable and where to locate it.

Environmental impact

We are required to follow a set procedure for all nationally significant infrastructure projects to assess the likely significant environmental effects of our proposals. We will carry out an environmental impact assessment (EIA) and submit a full environmental statement (ES) and non-technical summary as part of our application for development consent.

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.

The decline of biodiversity in the UK is well documented and we are conscious that our activities can impact habitats and therefore species' ability to thrive.

BNG is to become mandatory from late November 2025 for Nationally Significant Infrastructure Projects to achieve 10% net gain. BNG can be achieved through habitat creation and/or enhancement and may be delivered on site or off site.

Protecting soil and agricultural land

We understand the national significance of the agricultural land affected by our proposals, and will put measures in place to reduce our impact, including:

- the careful removal of soil to be stored adjacent to the working area, meaning soil of the same texture, organic matter content and nutrient status can be reinstated in the same area it was removed from and to match the existing soil profile as far as it is possible
- implementing a soil management plan to ensure there is no drop in soil quality as a result of construction works. As part of the plan, soil will be tested before and after construction
- protection of livestock by erecting suitable fencing
- soil handling works will be supervised by appropriately qualified and experienced individuals, and an appropriate aftercare period and plan will be set out.

Our aim is to reinstate land to its original condition and land grade by implementing these mitigation measures.

Drainage

We also recognise the importance of effective drainage for local farmers and propose the following measures for land affected by our proposals:

- a specialist contractor will be employed to carry out a pre-works assessment of the existing drainage systems in consultation with relevant landowners and other stakeholders
- a pre-construction drainage management plan would then be prepared for review and approval by stakeholders. This plan will set out and record the condition of the existing drainage network
- a post-construction drainage management plan would also be prepared later as the cable route is installed.

You can read more about how we will protect soils and drainage by reading our Soils and drainage leaflet on our website.

Best practice guides

'Best practice' guides showing how NGET constructs underground cables are available at:
www.nationalgrid.com/electricity-transmission/document/145316/download

Information for landowners

When developing our proposals, we need to understand who has a legal interest in the land in and around the areas being considered as part of the projects.

If you are a landowner and believe your property may be affected by our proposals, and want to talk to our lands team, please email **egl3and4@ardent-management.com** or call **0203 302 0545** or write to: **EGL 3 and EGL 4, Ardent, 36 Park Row, Leeds, LS1 5JL**

In the DCO process, anyone with a legal interest in land is known as a person with an interest in land (PIL). If you are identified as a PIL, we will contact you directly.

Whilst much of the information we need is available on public registers, we have appointed land referencing firm Ardent to contact individual landowners to verify the publicly available information and ensure we have made best efforts to identify any potentially impacted landowners.

Ardent provides land and consenting advice to support the promotion and delivery of major projects in the UK. Ardent will also assist with contacting landowners and occupiers to arrange access for non-intrusive and intrusive surveys which we plan to carry out whilst we develop the proposals and prepare the application for a DCO.

More detailed information for landowners, along with relevant contact information can be found on the landowner page of our website.

Next steps

All feedback we receive as part of this consultation will be carefully considered, alongside the outputs of our ongoing technical and environmental assessments as we finalise our proposals and prepare our application for development consent.

During this time, we will also:

- continue our discussions with landowners and people with a legal interest in land
- continue briefing local elected representatives
- continue working with local authorities and other stakeholders
- carry out any further technical studies and surveys along the route
- provide updates to those who have asked to be kept updated on our proposals via email. You can register for these updates on our website **nationalgrid.com/egl3andegl4**
- post updates on the EGL 3 and EGL 4 project website at **nationalgrid.com/egl3andegl4**
- continue to refine our proposals in response to feedback and findings from technical studies and surveys
- prepare our DCO application.

Once we have prepared our DCO application, we will apply to the Planning Inspectorate, seeking consent for EGL 3 and EGL 4.

Our submission will include a consultation report, showing how we have taken account of feedback received from communities and stakeholders to all stages of consultation.

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

If consented, we expect construction work to start in 2029, with EGL 3 and EGL 4 operational by 2033.

EGL 3 and EGL 4 timeline

2024
Stage 1 consultation

2025
Stage 2 consultation
EGL 3 and EGL 4 are at this stage

2026
DCO application submission

2029
Construction starts

2033
Fully operational

Scan this QR code to view a short film about the Development Consent Order Process, or visit the Planning Inspectorate website – **infrastructure.planninginspectorate.gov.uk/application-process/the-process/**

National Grid plc
1-3 Strand
Charing Cross
London
WC2N 5EH
United Kingdom

nationalgrid.com