



Eurolink Interconnector

National Grid Ventures
Consultation Briefing Document

November 2022

national**grid**

Introducing EuroLink Interconnector

To support the UK’s growing energy needs, National Grid Ventures (NGV) is bringing forward proposals for a multi-purpose interconnector (MPI) called EuroLink, which will deliver a new electricity link between Great Britain and the Netherlands.

EuroLink could supply up to 1.8 gigawatts (GW) of electricity, which would be enough to power up to approximately 1.8 million homes, as well as contributing to our national energy security and contributing to the UK’s climate and energy goals.

EuroLink is classified as a MPI because it will connect offshore wind from the Netherlands. By connecting Great Britain to the Dutch energy market, EuroLink would boost competition in the energy market and improve the affordability of energy.

We are holding a non-statutory public consultation to inform the public about our EuroLink proposals, gather your feedback to help refine our proposals and respond to your questions.

The non-statutory consultation will commence on **Monday 24 October** and will run for eight weeks until **Sunday 18 December**.

Your feedback will help us identify our preferred locations for a landfall site, onshore cable route and a converter station site.



NGV has partnered with TenneT, the Dutch Transmission System Operator (TSO), to deliver EuroLink.

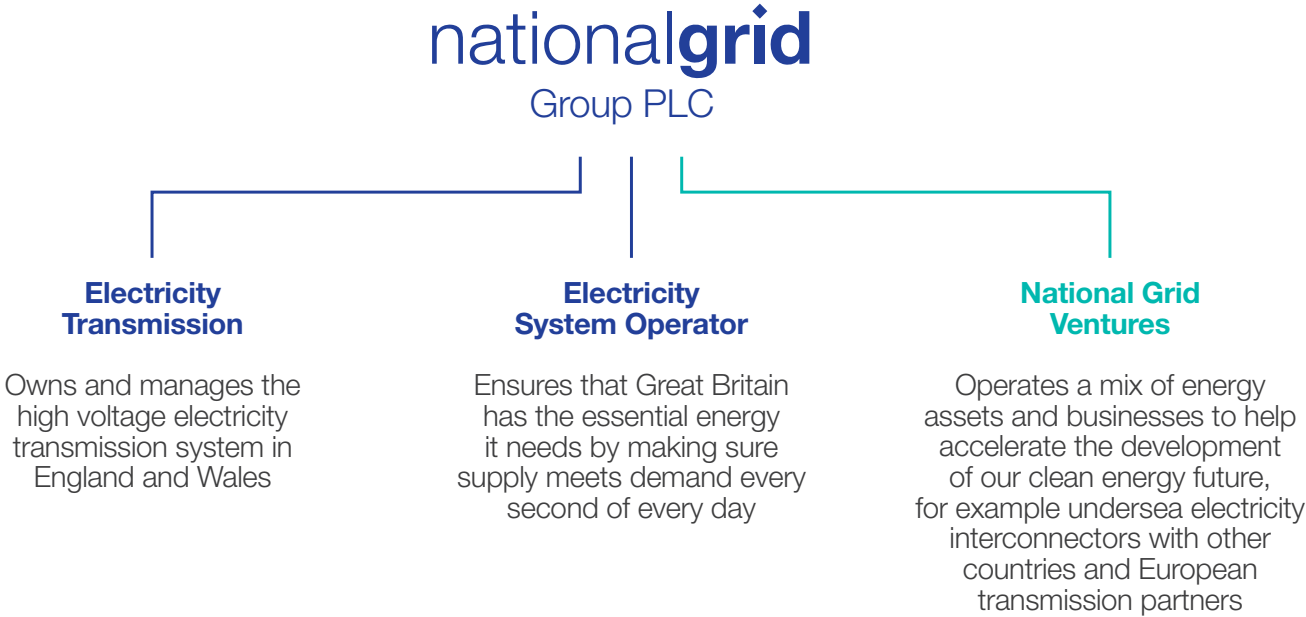
National Grid Ventures (NGV)

National Grid is one of the largest investor-owned energy companies in the world and plays a vital role in connecting people throughout Great Britain to the energy they use.

National Grid sits at the heart of Britain’s energy system, connecting millions of people and businesses to the energy they use every day.

There are three distinct electricity business entities under the umbrella of National Grid, as detailed in the diagram below, all with different roles and responsibilities.

National Grid Ventures (NGV) is a competitive division of National Grid. It is a separate ‘arms length’ entity to National Grid Electricity Transmission (NGET) and National Grid Electricity Operator (NGESO), which are subject to separate regulation. NGV, operates and invests in energy projects, technologies, and partnerships to accelerate the development of a clean energy future.



Our vision for the Scheme

We have a strong track record of delivering new electricity interconnector projects.

By 2024, we will have a total of six subsea electricity interconnectors with a capacity of ~8 GW connecting the UK with France, the Netherlands, Belgium, and Denmark, as well as Norway. This capacity is enough to power up to approximately eight million British homes.

By linking Great Britain to neighbouring countries, interconnectors can import cheaper clean energy when it is needed, while exporting excess power. This ensures we maintain access to a broader and more flexible supply of electricity.

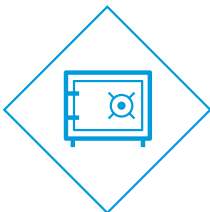
This approach could see Great Britain reach net carbon negative by 2030 and become a net electricity exporter to Europe by 2050, which would significantly benefit both our environment and economy.



Improving affordability of energy

Affordability – import cheaper energy for consumers.

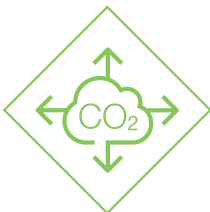
- Hitting the UK government’s ambition for interconnection (18 GW by 2030) could deliver up to £20 billion of consumer benefits to 2045.
- Interconnectors move energy from where it has the lowest price to where it has the highest price. In that way they help reduce high prices.



Enhancing our national energy security

Security – Interconnectors deliver energy security at the flick of a switch.

- By 2025 National Grid will have enough flexible capacity (~8GW) to power up to approximately eight million homes in Great Britain with clean electricity.
- Interconnectors give system operators the critical tools they need to manage rapid changes in supply and demand – the perfect partner for intermittent renewables.
- Interconnectors can respond in minutes compared with many hours in the case of conventional fossil fuelled generators.



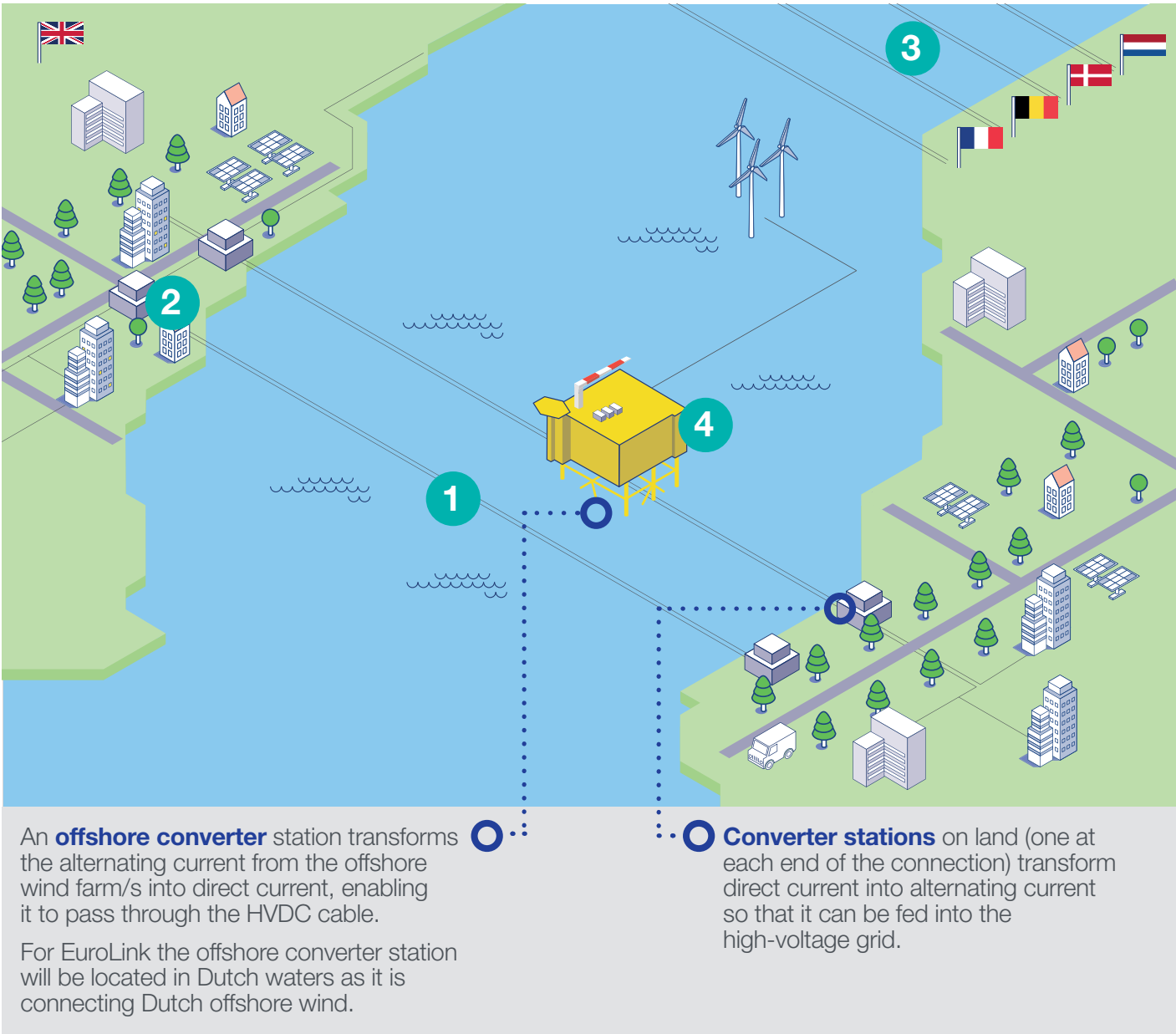
Supporting zero carbon energy

Zero carbon - efficient links for zero carbon energy.

- By 2030, 90% of electricity imported via National Grid interconnectors will be from zero carbon sources.
- Between 2020 and 2030, we estimate importing cleaner energy across our interconnectors will enable Great Britain to avoid 100 million tonnes of CO₂ emissions that would otherwise have been emitted by fossil-fuel generation.



What are Multi-Purpose Interconnectors?



- 1**

A traditional interconnector is a subsea cable that enables the trade of electricity between Great Britain and neighbouring markets. An interconnector connects the transmission systems of two (or more) countries.
- 2**

Interconnectors enable us to import and export energy depending on the needs of the market, including moving energy from where there is excess and the price is low to areas in need and where prices are high.
- 3**

NGV currently has five interconnectors in operation: IFA and IFA2 to France, Nemo Link to Belgium, BritNed to the Netherlands, and North Sea Link to Norway. A new interconnector is under construction called Viking Link, which will link to Denmark.
- 4**

Whilst a traditional interconnector can only connect national transmission systems, a multi-purpose interconnector can also connect energy sources, such as offshore wind, to these transmission systems.

Key benefits of MPIs

Improving affordability of energy

Import cheaper energy for consumers by moving energy from where there is excess and the price is low to areas that need it and where prices are high.

Enhancing our national energy security

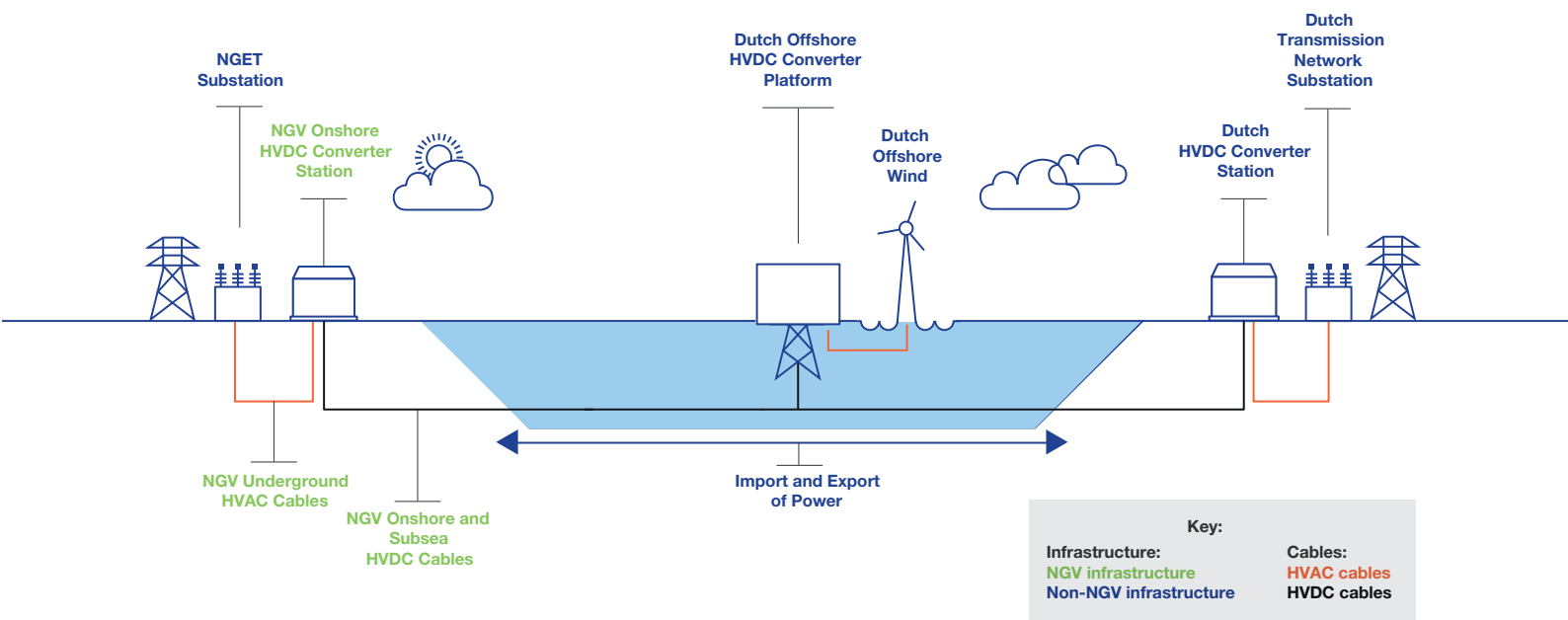
Deliver energy security by managing rapid changes in energy supply and demand.

Supporting zero carbon energy

Efficient links for zero carbon energy with 90% of electricity imported via National Grid interconnectors set to be from zero carbon sources by 2030.



How will EuroLink work?



What infrastructure will be required to deliver EuroLink?

EuroLink will transmit electricity under the North Sea through underground subsea cables, which will come onshore at a landfall point. As all the cables will be buried underground at the landfall site, there will be little visible once works are completed, apart from some relatively small-scale equipment above ground.

Offshore infrastructure

EuroLink will connect Great Britain and the Netherlands via subsea cables, which will connect to Dutch offshore wind via an offshore converter station.

The offshore converter station will be in Dutch territorial waters and will be owned by TenneT. The platform will have a fixed capacity, which will be filled by Dutch offshore wind.

Onshore infrastructure

Ahead of a future DCO application, the options presented during this consultation will be refined to identify the final:

- converter station site
- landfall site
- HVDC cable corridor from the landfall location to the converter station
- HVAC cable corridor from the converter station to the NGET substation
- subsea cabling route.

Our approach to onshore infrastructure

NGV started the site selection process with an initial desk-based appraisal of the area, including the work previously undertaken on other projects in the local geography.

To identify potential locations for the onshore infrastructure, areas of search for potential converter site locations were based on a 5km radius from the proposed Friston substation. This will ensure as short as possible High Voltage Alternating Current (HVAC) connection between the two sites.

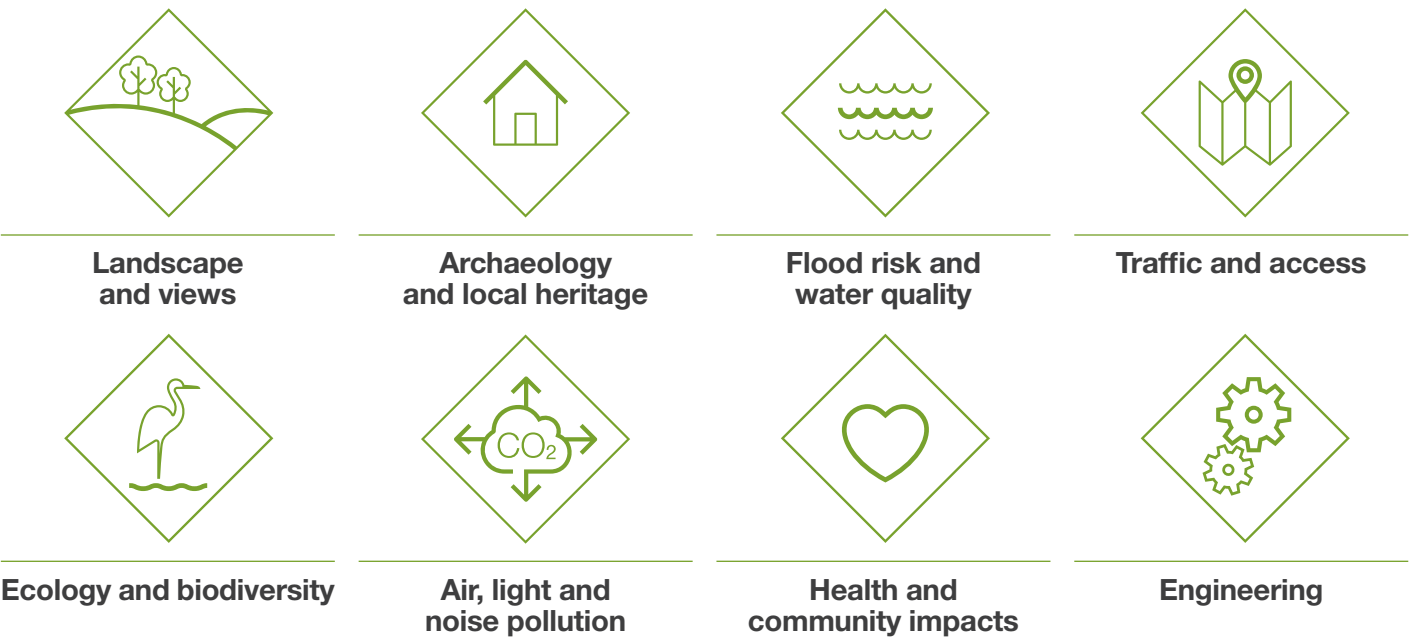
In searching for potential landfall locations, we explored the coastline from Aldeburgh to Lowestoft. We undertook further assessments of potential siting and routeing options to identify a shortlist of the most suitable converter station search areas, landfall site options and cable corridor options.

To select the most suitable options, we considered potential impacts, including on the following:

- Suffolk Coast and Heath AONB and Heritage Coast
 - Public rights of way, byways and cycle routes
 - Residential properties, existing infrastructure and future developments
 - Local heritage and archaeological assets
 - Ecologically designated sites and sensitive features
- Consideration of areas of flood risk
 - National and Local Development Plan policies
 - Shipping and vessel activity
 - Commercial fishing and recreational usage
 - Marine archaeology

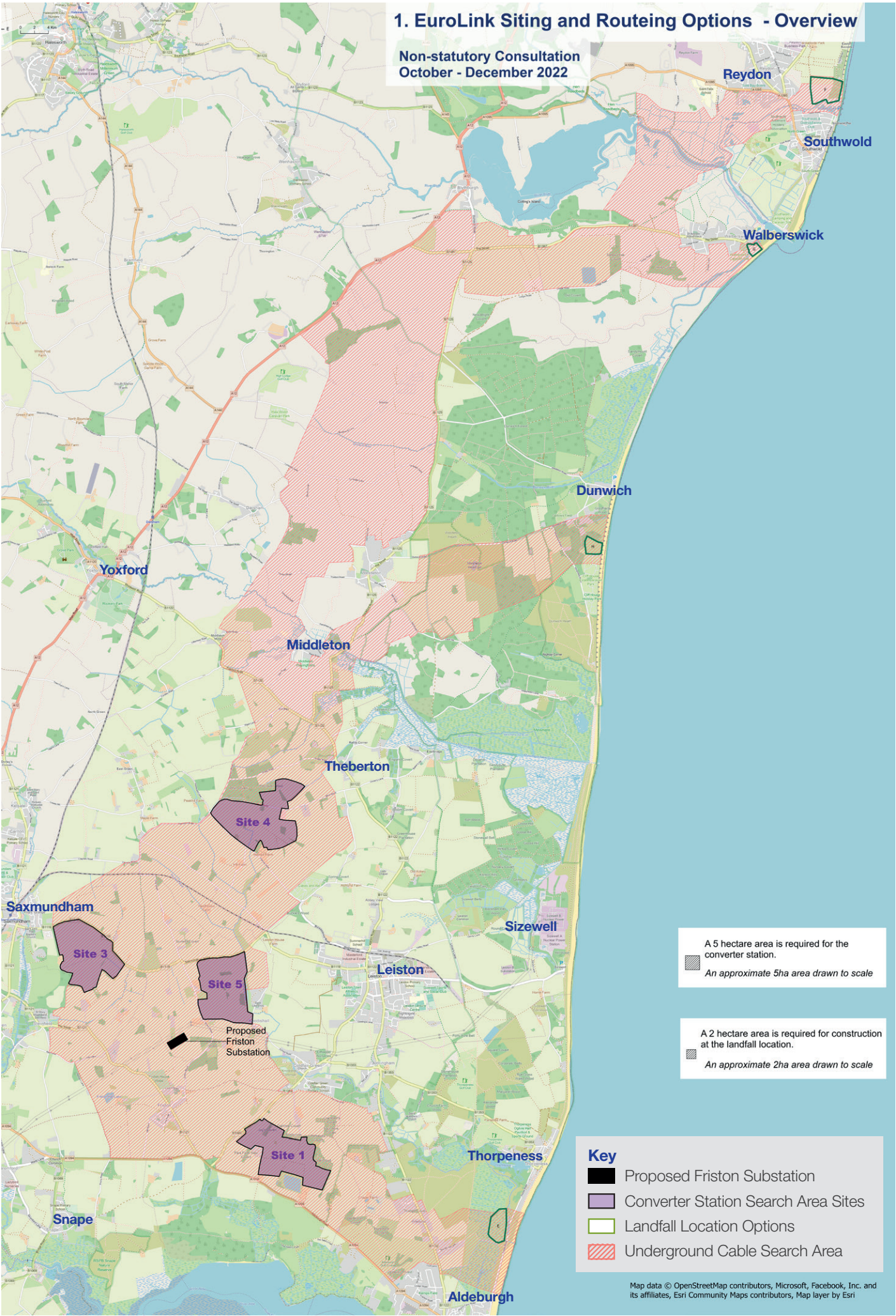
Next steps

Alongside the feedback from this consultation, we will undertake further assessment and survey work over the coming months to help refine our onshore siting and routeing options. Important topics we need to assess further include:



1. EuroLink Siting and Routing Options - Overview

Non-statutory Consultation
October - December 2022



EuroLink onshore siting and routing options

Our initial siting and routing work for EuroLink assumes a connection to the proposed Friston substation, which will connect the project to the National Electricity Transmission System.

EuroLink will require onshore infrastructure. We have identified possible locations for this infrastructure, which you can view on the Map #1 (page 7). The boxes below describe what the proposed infrastructure is and why it is needed.



Landfall

Landfall is where the subsea cables are brought onto the land and are connected to the onshore cables.

Underground cabling

All the cables will be buried underground from the landfall site to the converter station and then underground again from the converter station to the substation. The cabling will have ground access points along the route but will otherwise not be visible along the cable route.



Converter station

At the converter station, the electricity will be transformed from high voltage direct current (HVDC) into high voltage alternating current (HVAC), which is necessary to enable the electricity to be fed into the transmission network.

The typical footprint for a converter station site covers an area of five hectares (12 acres), with an additional two hectares for the construction service areas. This includes space for the converter station building. However, we are at the early stages of design and further details will be published in due course.

Exploring opportunities for coordination

Background

In response to stakeholder feedback, NGV’s Eurolink and Nautilus projects and NGET’s Sea Link project are exploring potential opportunities to coordinate. Separate non-statutory public consultations are being held for each of the EuroLink and Sea Link projects from October to December 2022. NGV is currently exploring a possible alternative location for Nautilus. Until a viable, alternative location is confirmed, Nautilus will be included as part of our coordination work.

We understand that plans for energy infrastructure have caused concern in local communities. We hope that by sharing our proposals at the same time people feel better informed about how different parts of the infrastructure could fit together and can share their views on each of the projects, accordingly. Whether people attend a digital or in-person event, we strongly encourage communities to share their views.

What could coordination look like?

Coordination could range from co-location of infrastructure from different projects on the same site, to coordinating construction activities to reduce potential impacts on local communities and the environment.

This is explored further under the subheadings below:

Exploring opportunities for co-location:
NGV and NGET are working collaboratively to explore opportunities to co-locate onshore infrastructure for the EuroLink, Nautilus and Sea Link projects, including:

- up to three converter stations on one site
- shared underground cable route corridors
- shared landfall.

We welcome feedback from local communities whether co-location is a preferred option. Further engineering studies and assessments are required to understand if co-location of landfalls and underground cables is possible.

Coordination during construction
We will explore opportunities to coordinate construction activity between NGV and NGET projects, as well as with other developers in the local area. Coordination could include, for example, re-using materials, sharing site compounds and how we invest in communities.

Offshore infrastructure coordination
NGV and NGET are exploring the potential for offshore coordination as part of the Offshore Transmission Network Review (OTNR) “Early Opportunities” workstream, with a view to identifying a future Pathfinder Project.*
*Joint statement from North Falls, Five Estuaries and National Grid: Commitment to exploring coordinated network designs in East Anglia - GOV.UK (www.gov.uk)



Our consultation

Our consultation starts on Monday 24 October and will run for eight weeks, closing on Sunday 18 December.

Our communication lines will still be open following this period and there will be more opportunities to comment on our proposals once these have been refined.

This consultation and our local information events are an important part of our pre-application consultation. Understanding what issues are most important for the local community is key, and the feedback gathered at these events will help us to shape our proposals going forward.

Community drop-in sessions

There will be five in-person exhibition events (see details below) and a dedicated project website where you can find out more about our proposals and share your feedback online.

Location	Date	Time	Address
Leiston	Wednesday 23 November	10am – 4pm	Waterloo Centre, Waterloo Avenue, Leiston, IP16 4HE
Saxmundham	Thursday 24 November	2pm – 8pm	Saxmundham Market Hall, High St, Saxmundham IP17 1AF
Aldeburgh	Friday 25 November	10am – 4pm	St Peter and St Paul’s Church Hall, Victoria Road, Aldeburgh, IP15 5DU
Reydon	Wednesday 30 November	10am – 4pm	Stella Peskett Hall, Might’s Rd, Southwold IP18 6BE
Dunwich	Thursday 1 December	2pm – 8pm	Dunwich Museum, James Street, Saxmundham IP17 3DT

For residents who are unable to attend the in-person events, we have also arranged two webinars, where the project team provide an overview of the proposals and answer questions. Dates and times for the webinars are provided below:

Webinar 1
Wednesday 9 November, 6:30pm – 8pm

Webinar 2
Wednesday 7 December, 10am – 11:30am

More information on the webinars and our proposals can be found on our project website: nationalgrid.com/eurolink

Have your say

You can access our consultation material and provide your views in the following ways:

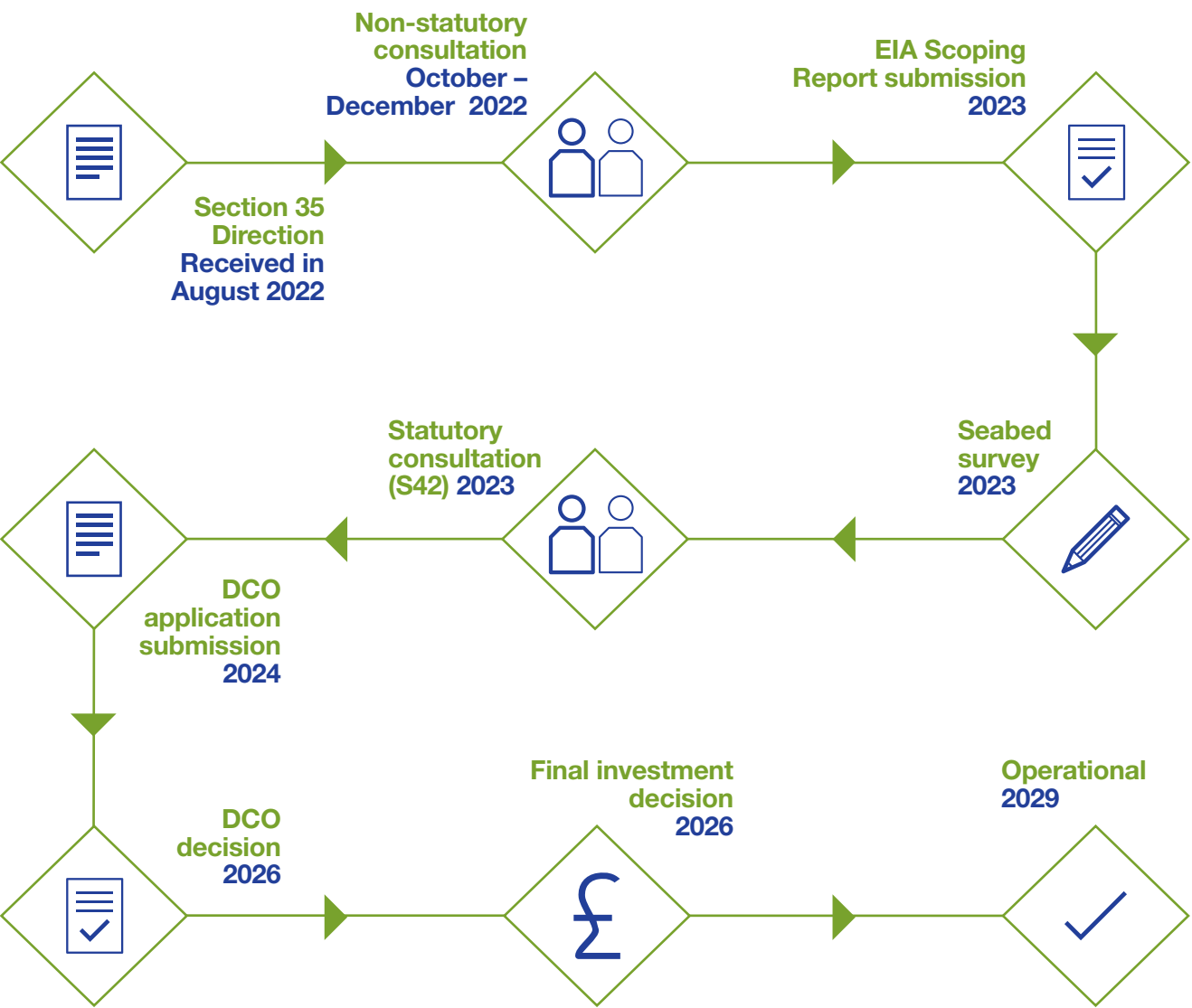
- In person by attending one of our events
 - By post by writing a letter or completing one of our feedback forms and posting it back to us free of charge to our Freepost address on the back page of this leaflet
- Online via our project website
 - You can also email us, call us or write to us using the details on the back page of this leaflet.

Project timeline

NGV received a Section 35 Direction from Department for Business, Energy and Industrial Strategy (BEIS) that enables EuroLink to be treated as a “nationally significant infrastructure project (NSIP)”.

The NSIP consenting process brings together planning, land assembly, environmental and access matters for a proposed project within a single consultation, application, public examination, and decision-making process, determined by the Secretary of State.

If successful, this would result in a development consent order (DCO), which would contain all permissions, powers, and consents necessary to enable the project to proceed. The system is designed to provide greater levels of certainty to developers of large-scale infrastructure projects. As part of this process, there will be a statutory consultation held next year ahead of the final proposals being submitted as part of an DCO application.



Contact us

Please do not hesitate to get in touch if you would like to find out more information about the project and consultation.

You can also request hard copies of all the project materials, including the feedback form and a freepost envelope, via the contact details below.



Write to us at:

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26 Southampton Building, LONDON WC2A 1AN**



Email us at:

info@eurolink.nationalgrid.com



Call our Freephone information line:

0800 083 1787



For more information about EuroLink Interconnector please visit:

nationalgrid.com/eurolink

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