

# Welcome to our public information exhibition

## Scotland to England Green Link – SEGL2

From Peterhead to Drax

### Our public information exhibition and events

We're holding this exhibition, and accompanying online information events, to present our latest proposals to the local community ahead of the submission of our outline planning application to Selby District Council and East Riding of Yorkshire Council in spring 2022.

This exhibition and our online information events follow on from our public consultation, held in spring 2021, where we took feedback on our proposals from landowners, residents and stakeholders.

The purpose of our public information events is to show how our plans have evolved and answer any questions you have.

There will be further opportunity to give formal feedback after we have submitted our planning applications to Selby District Council and East Riding of Yorkshire Council and the statutory period of consultation opens.

### Why do we need SEGL2?



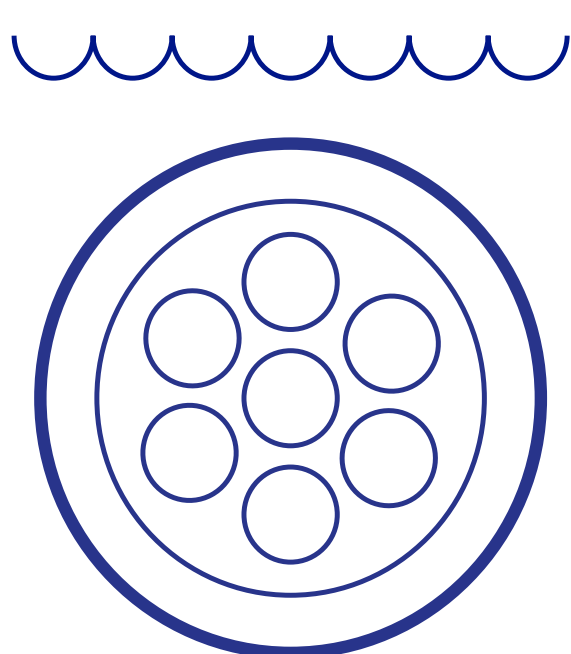
Net zero target in all greenhouse gases - 2045 in Scotland and 2050 in England and Wales.

**40<sup>GW</sup>**  
by  
**2030**

By 2030, the Government's target is for 40GW of offshore wind to be delivered - enough to power every home in the UK.



To help deliver this greener energy to homes and businesses across the UK, we need to increase the capability of our network between Scotland, with its renewable energy reserves, and England.



To do this, we are proposing the construction of two new High Voltage Direct Current (HVDC) links which will operate as electricity superhighways from Scotland to England.

Our Scotland to England Green Link 2, or SEGL2 for short, is one of these projects and, if approved, will run under the North Sea from Peterhead in Aberdeenshire, Scotland, to Drax in North Yorkshire. Its sister project, SEGL1, will run via the North Sea to Hawthorn Pit in County Durham.

### SEGL2 Project map



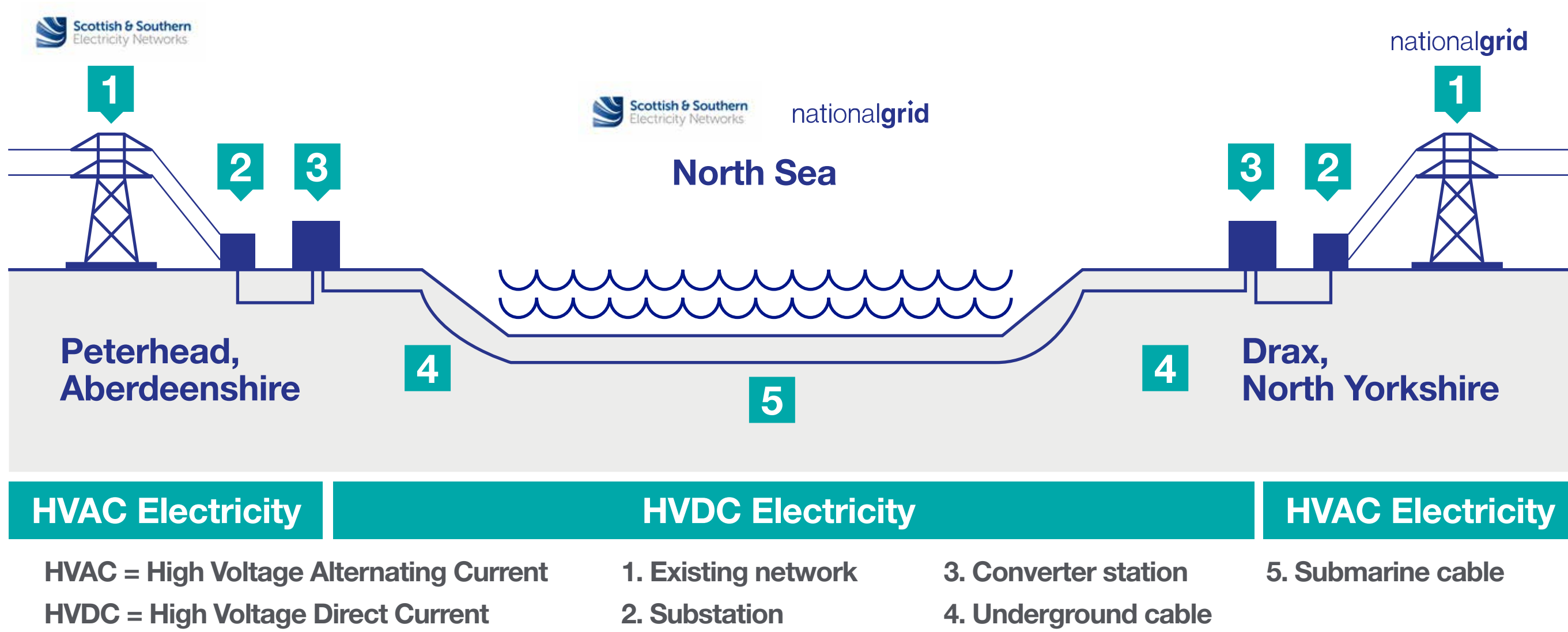
**SEGL2 is being jointly developed with Scottish and Southern Electricity Networks (SSEN). SSEN are the transmissions owners for Northern Scotland and are developing the onshore and offshore aspects of the scheme in Scotland.**

# Our proposed project

**For SEGL2, we are proposing the construction of a 2GW High Voltage Direct Current (HVDC) link – an electricity superhighway between Scotland and England.**

The purpose of our SEGL2 project is to scale up the capability of our network to deliver more green electricity generated in Scotland to the rest of the UK. If approved and completed, it will be able to carry enough green electricity to power up to **2 million homes** across the UK.

## How SEGL2 will work



## What we propose developing

**We are proposing to install a 505km cable that will carry more green electricity from Scotland to our network in England and to build a new converter station at Drax, North Yorkshire.**

The cable will run under the North Sea for approximately 437km and then come ashore at Wilsthorpe, just south

of Bridlington. The cable will then run underground for approximately 68km where it will connect to our proposed converter station and existing substation.

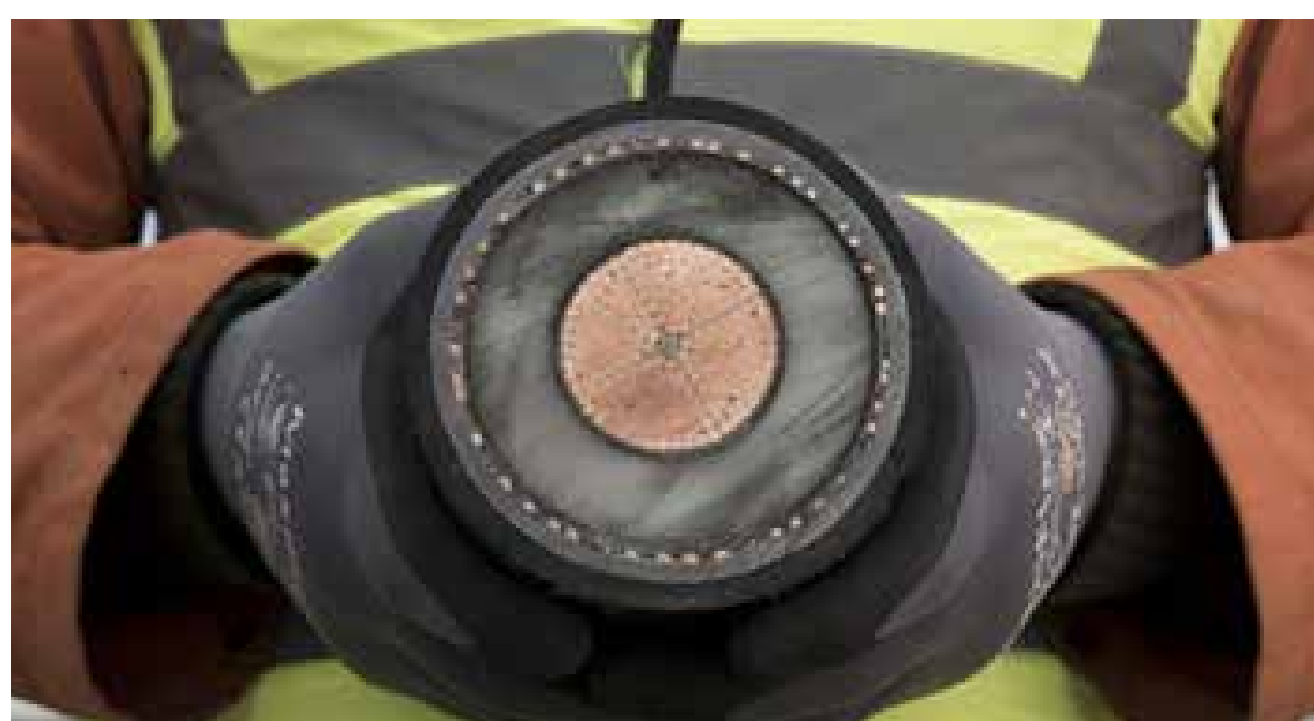
The converter station will convert the DC electricity to AC electricity and connect to our existing substation which will enable the electricity to be transmitted around the country.

## Why this route?

**We considered several potential cable routes between Drax power station and the East Yorkshire coastline, and we identified that this route is the least disruptive to local communities and the environment, as well as providing a relatively direct route to our proposed converter station.**

[Click here to view a map of our proposed route](#)

\*Please note, this link directs to an external site.



The above image shows what the cable looks like.



We use various methods to lay the underground cable, which will be installed 1-1.5 metres underground. The above image shows the open cut method.

**Take a look at the next board to see what our proposed converter station could look like.**



# Our proposed converter station

**The proposed locations for SEGL2's new converter station and cable route have been selected after extensive research and planning.**

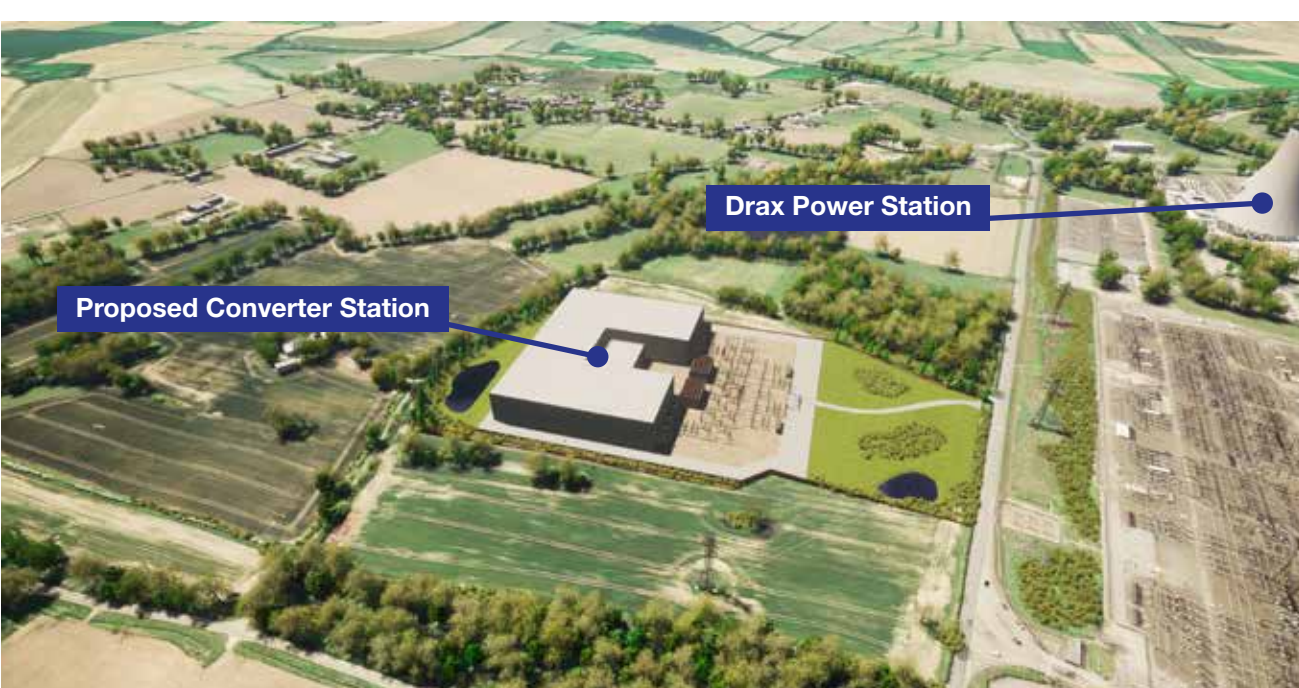
## Why Drax?

**The proposed locations for SEGL2's new converter station and cable route have been selected after extensive research and planning.**

Drax already has a National Grid substation, which is an access point to the UK electrical grid. Connecting SEGL2 to our existing infrastructure provides the network capability needed to deliver more green energy on to the rest of the country in the most optimum way. Many factors were very carefully considered including balancing cost, benefit to the network, and minimising infrastructure and impacts on people, places and the environment.



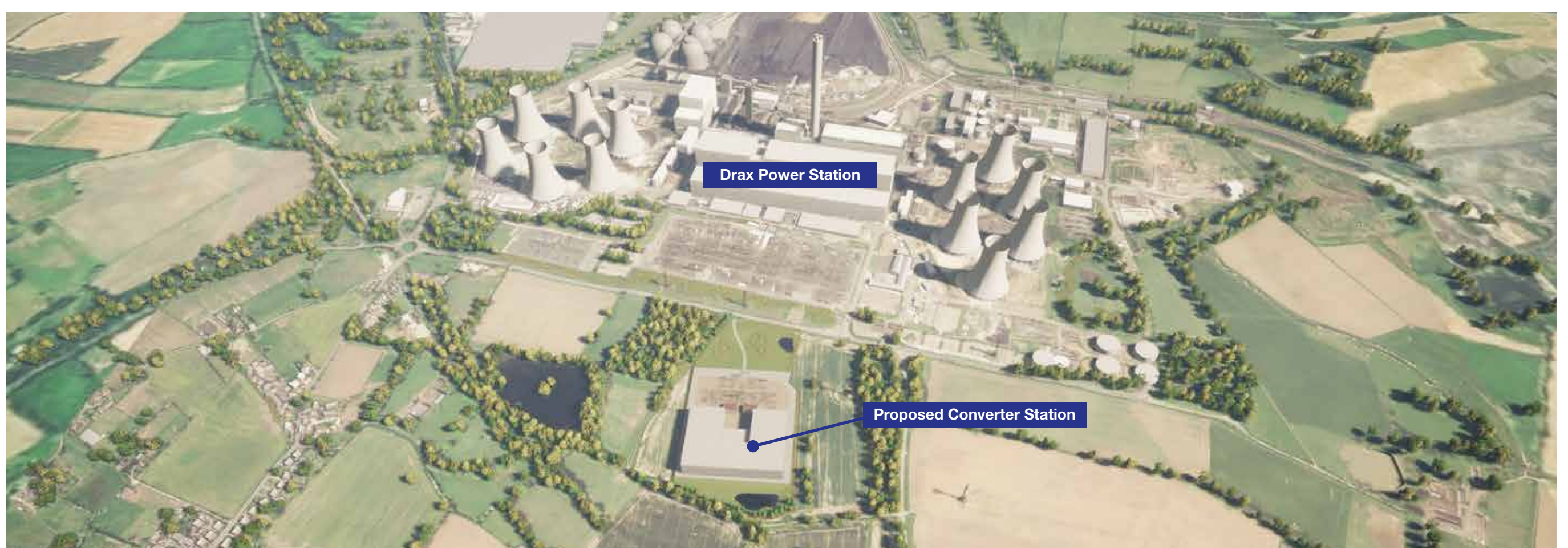
This indicative image shows what our proposed converter station could look like adjacent to Drax power station.



This indicative image shows an aerial view of what our proposed converter station could look like.



This indicative image shows a different view of what our proposed converter station could look like adjacent to Drax power station.



This indicative image shows an aerial view of what the Drax site could look like with our proposed converter station if our plans are approved.

**See the next board to learn about the offshore aspects of our project.**



# Our proposed project

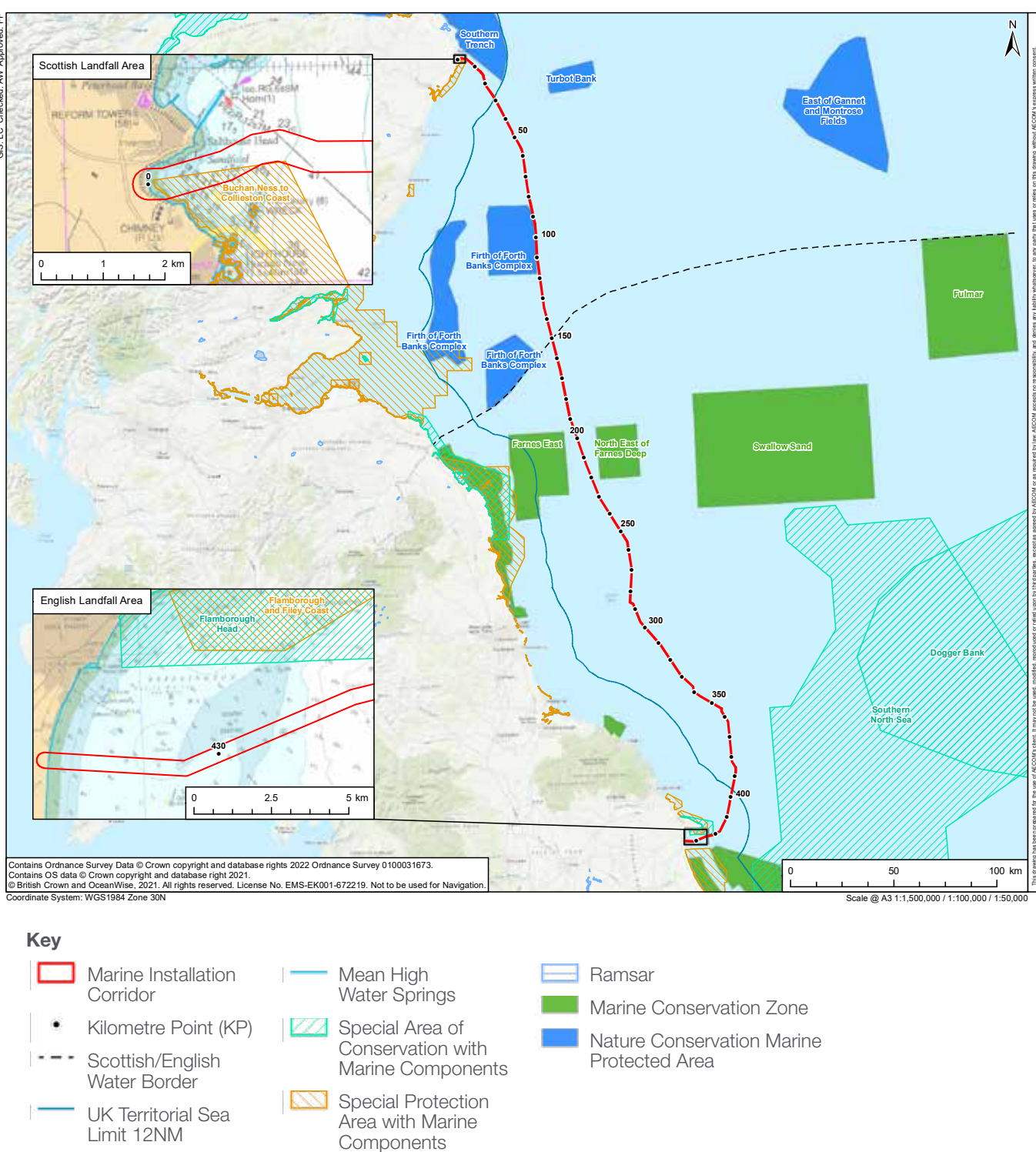
## Our proposed offshore route

### Proposed offshore cable route

We are proposing to install a subsea high voltage direct current (HVDC) link approximately 437km in length. The link will extend from Mean High Water Springs in Sandford Bay, Scotland and make landfall at Fraishthorpe Sands, England.

The red line shows the corridor that we have identified for the cable route. The proposed route has been designed to avoid ecologically important areas and minimise interactions with designated sites as much as possible.

[View the map in more detail](#)

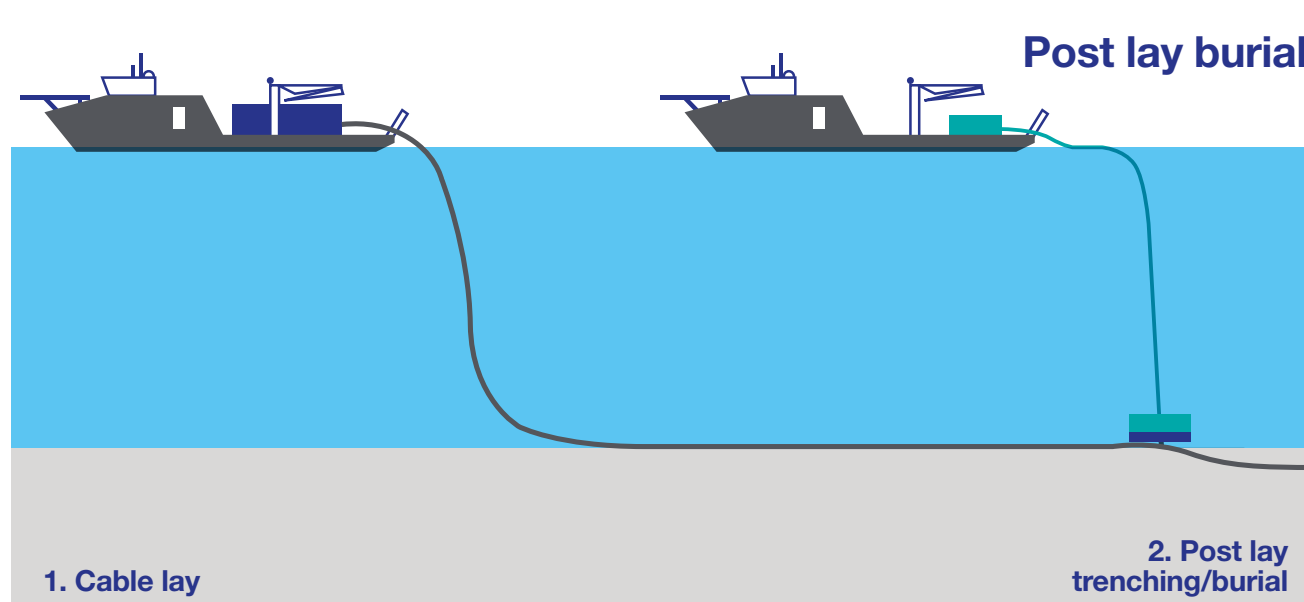
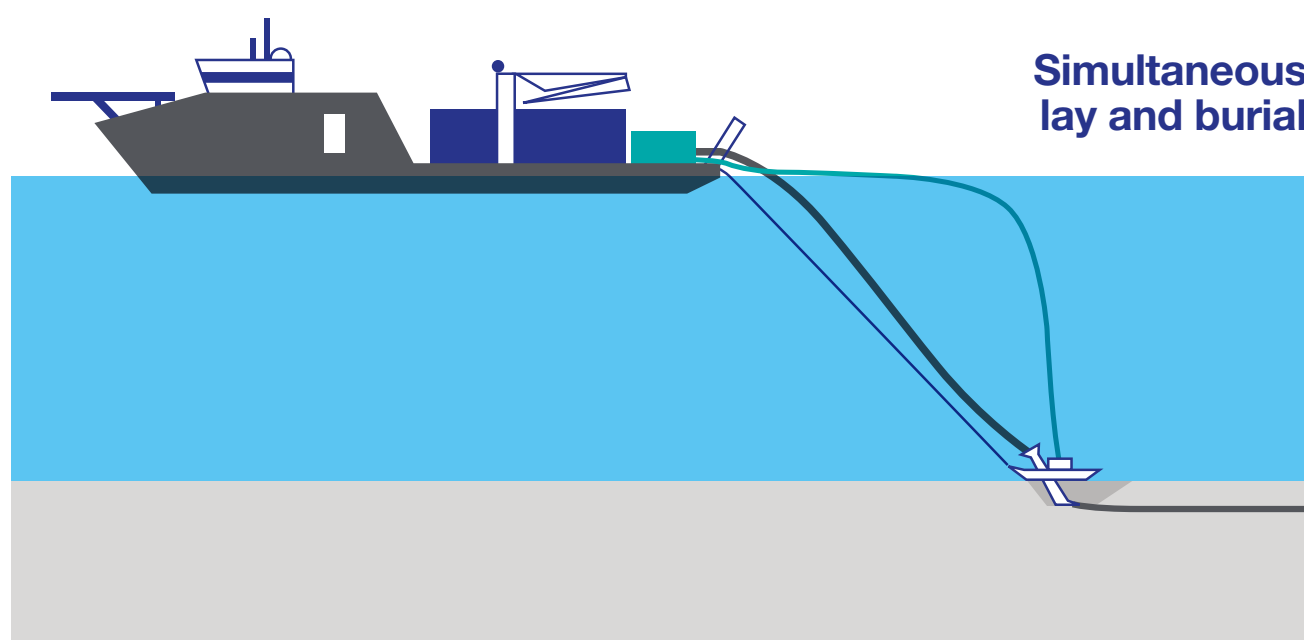


## How our cable will be laid under the seabed

Our proposed HVDC link will consist of two electrical cables and a fibre optic cable. These will be installed in up to two trenches, and buried to a target depth of 1.5m.

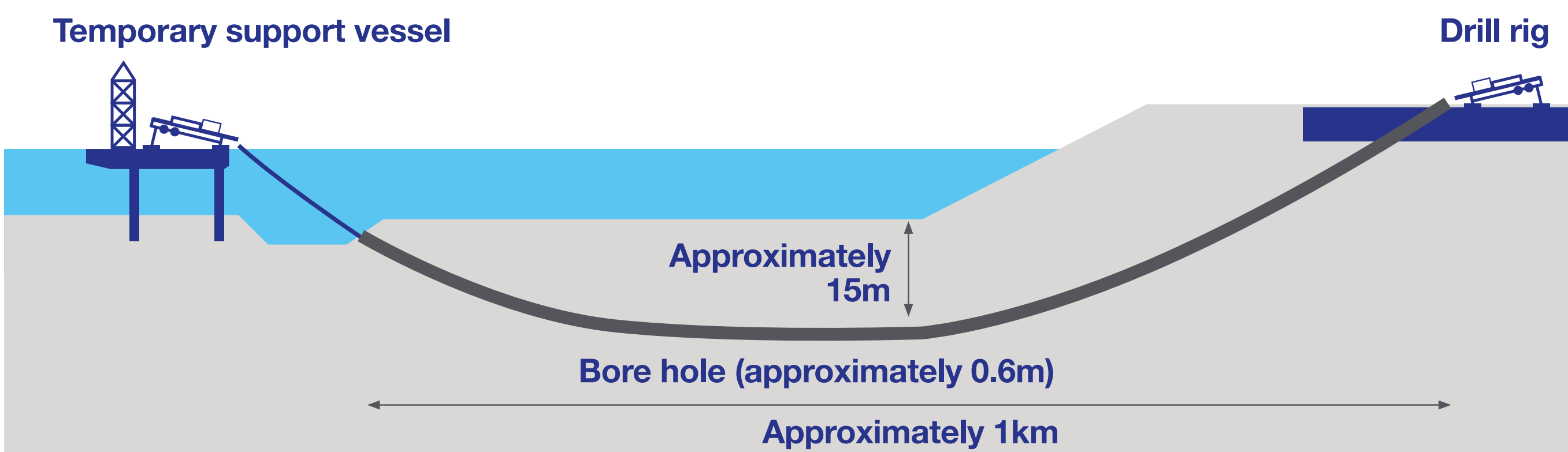
We use two methods to lay cable under the seabed: simultaneous lay and burial, and post lay and burial. The seabed surface conditions determine which method we use. During simultaneous lay and burial, one vessel both lays and buries the cable, and during post lay and burial, one vessel will lay the cable and a second follows behind and uses equipment to bury it.

A 500m exclusion zone will be established around the cable lay vessel(s) during installation to ensure the safety of the vessel(s) and others operating in the nearby area.



## How our cable will make landfall

To minimise impacts at the landfall points, the cables will be installed using Horizontal Directional Drilling (HDD). This method drills conduits to carry the cables under the intertidal zone and the near shore seabed at the landfall points and then installs ducts which the cables can later be pulled through. This approach minimises work in the intertidal zone and also reduces related environmental impacts including those on protected species and sensitive habitats, and on people using the foreshore.



**Take a look at the next boards for more detail about how we will minimise environmental impacts**

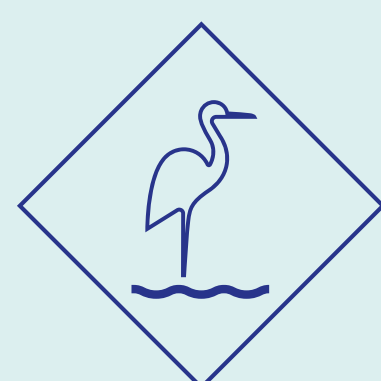
# Protecting the environment – on land

**Helping society decarbonise is the biggest contribution we can make to the environment and this ambition is the very foundation of the SEGL2 project.**

However, we must also consider our direct impact and have worked to ensure that our project will meet and exceed environmental standards to protect local wildlife and local ecology.

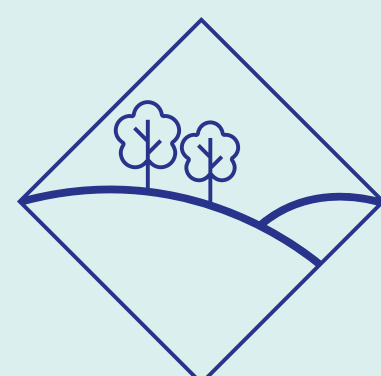
To minimise the impact of our work we have undertaken a range of environmental assessments around the site of our proposed converter station, and along our cable route.

## Environmental surveys we have carried out



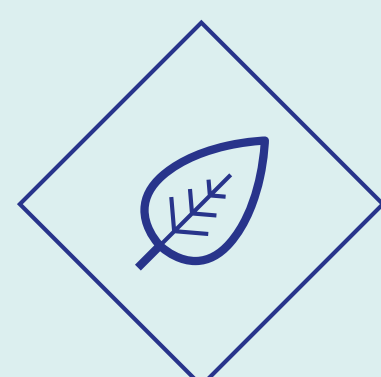
### Biodiversity

We have undertaken a range of habitat and protected species surveys to inform the proposed underground cable route and the location of the converter station. We will not only look to protect existing habitats and protected species but will also seek to ensure that local biodiversity is left in a measurably better condition. We will provide, as a minimum, a 10% Biodiversity Net Gain and we will work with our stakeholders to deliver this.



### Landscape and visual amenity

Our proposed project is being developed in close proximity to our existing Drax substation, and adjacent to the existing Drax power station. Our proposed converter station will be in line with the external appearance and colours of the power station to integrate it into the site and surroundings. We also propose to provide landscape planting, particularly on the east of the site to screen and filter views of the converter station as much as possible.



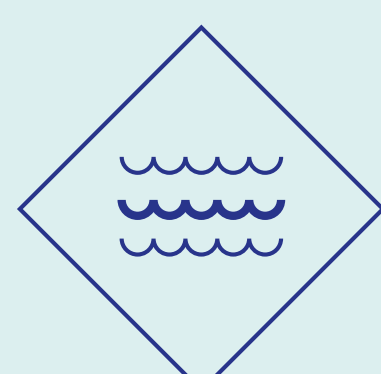
### Soils and agriculture

Soils and agricultural land-uses have been surveyed along the underground cable route and at the converter station site. This is to ensure we understand these resources so that they are carefully managed during construction and then are effectively reinstated.



### Geology and hydrogeology

To ensure that we develop our project on safe and solid ground we have undertaken detailed studies, and consulted the Environment Agency, East Riding of Yorkshire Council, and Selby District Council to better understand contaminated land, ground water, and water abstractions in the area.



### Hydrology, drainage and flood risk

The proposed converter station is located in an area of flood risk. This is because it is preferable to be closer to Drax than to locate the converter station in the open countryside. We will be required to raise the land on which the proposed converter station is located. The final site level will be agreed with the Environment Agency.



# Protecting the environment – marine

**We are just as dedicated to ensuring that our project will meet and exceed environmental standards for protecting marine life and ecology as we are to protecting wildlife and ecology on land.**

## Environmental factors we have considered

We are in the process of preparing an Environmental Appraisal Report (EAR) to help us identify, and prepare to mitigate, any anticipated impacts of our work. As part of our appraisal process, we have assessed potential effects on the following areas:

- The physical environment
- Benthic ecology (including intertidal)
- Fish and shellfish ecology
- Marine mammals
- Ornithology
- Marine archaeology
- Shipping and navigation (including Navigational Risk Assessment)
- Commercial fisheries
- Other sea users

## How we are going to reduce our impact on the environment

We have researched and refined our proposed offshore cable route and landfall points over several years. We have designed our route to avoid, where possible, ecologically important areas such as rock outcrops, and have worked to minimise cross over into designated areas like the Buchan Ness to Collieston Coast Special Protection Area.

As part of the Environmental Appraisal we are also identifying further potential risks and mitigation measures. These will be outlined in our Marine Licence Application, in the same way that potential environmental impacts and mitigation measures will be identified in our planning applications for the onshore elements of our proposed project.

## Fisheries and harbour engagement

To develop our proposals, we have engaged with a wide range of stakeholders including the Scottish and English fishing community, including organisations such as the North Eastern Inshore Fisheries and Conservation Authority (IFCA), the Eastern IFCA and the National Federation of Fisherman's Organisations (NFFO), the Scottish Finfish Federation (SFF), the Scottish White Fish Producers Association (SWFPA) and the

North East Regional Inshore Fisheries Group (NERIFG). Their feedback has provided valuable insight about the fishing activity that takes place in the area near our proposed cable route and will inform our Environmental Appraisal.

We have also engaged with harbour and port authorities to understand any navigational risks there may be near our proposed route.



# Consent for our project and the planning process

**We are holding this public information exhibition, and accompanying online events, to share details of our proposed project, ahead of the submission of our planning applications to Selby District Council and East Riding of Yorkshire Council in spring 2022.**

The exhibition and events follow on from our formal public consultation, which ran between 29 March 2021 and 23 April 2021. During the consultation we received feedback on various aspects of our project from landowners, residents and stakeholders.

The purpose of our public information events is to show people how our plans have evolved and answer any questions they have at this stage. There will be further opportunity to give formal feedback during the planning application process after we have submitted our planning applications to Selby District Council and East Riding of Yorkshire Council and the statutory period of consultation opens.

During this time, you will be able to comment on the planning applications via Selby District Council's and East Riding of Yorkshire Council's planning portals. Each Council will then decide whether to approve our proposed project. Please see the diagram below for more information on the process.

## What planning consents are we applying for?

For SEGL2, we will be applying for planning permission for the onshore elements of our project, the proposed converter station and the onshore cable. Our applications will be made under the Town and Country Planning Act and will be supported by a comprehensive Environmental Statement.

Alongside onshore planning permission, we will also be applying for a Marine Licence from the Marine Management Organisation for the marine cable. Much like planning permission onshore, this process involves a period of technical appraisal and consultation which will inform the outcome of the application. Our Marine Licence application will also be supported by an Environmental Appraisal Report.



**Take a look at the next boards for more detail on what our planning application will contain.**



# Construction impacts

## Construction working arrangements

**If our project is approved, construction will begin in 2024 and conclude in 2029.**

Our proposed project will be subject to approval as part of planning applications made to East Riding of Yorkshire and Selby District Councils. Further details of our construction working arrangements will be agreed through the planning application process.

At this stage, we proposed that all converter station construction traffic will be routed to site off New Road, thereby avoiding rerouting significant traffic through nearby villages.

During the course of construction there will be instances where large pieces of equipment, such as electrical transformers, will need

to be transported to site. These will travel as 'abnormal loads' under escort following detailed planning with highways, police and local authorities.

Based on similar projects, over the course of the construction period we expect to have around 300-350 people working on the converter station build as well as the cable route installation. Our working hours will be determined through the planning application process; however, normal working hours are typically 7am to 7pm Monday to Friday and 7am to 5pm on Saturdays.

We are committed to keeping disruption to a minimum and will proactively share information with local communities throughout the project.

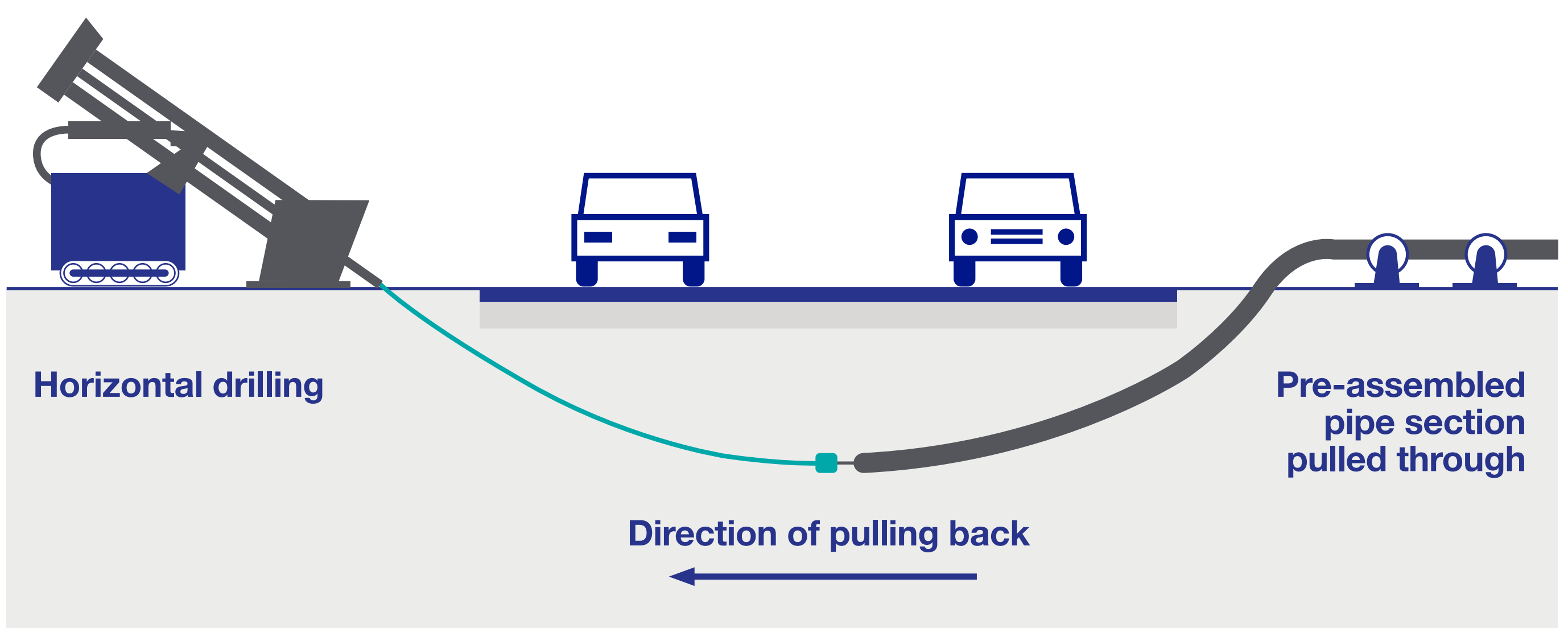
## Installation methods

We use various methods to lay the underground cable, including open cut cable laying and Horizontal Directional Drilling (HDD).

HDD is a trenchless crossing method that we use to cross some roads and rivers and avoid impact on the surrounding area. In this method we drill under the roadway and then pull the cables through the channel.

### Typical horizontal directional drilling method

This is an example of one of a number of road crossing methods







# Being a good neighbour

## Due to the very nature of what we do, connecting people to the energy we all use, National Grid is at the heart of communities.

We are members of the Considerate Constructors Scheme, and abide by the Code of Considerate Practice, which encourages best-practice approaches above and beyond statutory requirements. We're committed to keeping disruption to a minimum and will proactively share information with affected communities through our SEGL2 website.

We know that our responsibility as a business goes beyond safely building new energy infrastructure to enable a cleaner, fairer and affordable future. We want to make a lasting positive impact where we build our projects to help those areas and communities thrive and to support a sustainable future. Here are some of the ways we're planning to do that through this project:

- **Improving biodiversity**

We are developing a landscape masterplan that incorporates new public open space and replacement habitat, to enhance the biodiversity of the local area.

- **Our Community Grant Programme**

We fund projects run by charities and community groups that meet local community needs by providing a range of social, economic and environmental

benefits. When operating in an area, charities and community groups can apply for funding of up to £20,000 for projects that meet local community needs by providing a range of social, economic and environmental benefits.

Since the programme began in December 2015, we have awarded **over £2million** in grants.



**For National Grid's North Sea Link, the project opened an Energy Education Centre in Cambois, Blyth, in order to help provide pupils with an opportunity to gain an understanding of energy and sustainability whilst encouraging an interest in science.**



**When schools closed during lockdown, technology to learn from home was vital and children without access to a computer risked missing out.**

We partnered with five charities to donate 1,000 laptops to help young people keep up with their studies.



**Community Grant awards for National Grid's River Humber Gas Pipeline Replacement project.**

The 1st Goxhill and Barrow Scouts received £1,000 from our Community Grant Programme for new camping equipment.

The Community Recreation Team in Paull, East Yorkshire, received £20,000 from our Community Grant Programme which was used to create an outdoor gym and seating area for local residents to enjoy together.

# Next steps

## Learn more

Thank you for taking the time to review this public information exhibition. Please take time to look around the rest of our website, where you'll find Q&As, maps, infographics and videos.

## Public information events

If you have any questions, or would like to know more about our project, you're welcome to attend our online exhibition events.

Our **live Q&A sessions** will take place on:

- **10am – 2pm Tuesday 22 February**
- **2pm – 8pm Thursday 24 February**
- **11am – 5pm Saturday 26 February**
- **2pm – 8pm Thursday 3 March**

Our **online webinar** on:

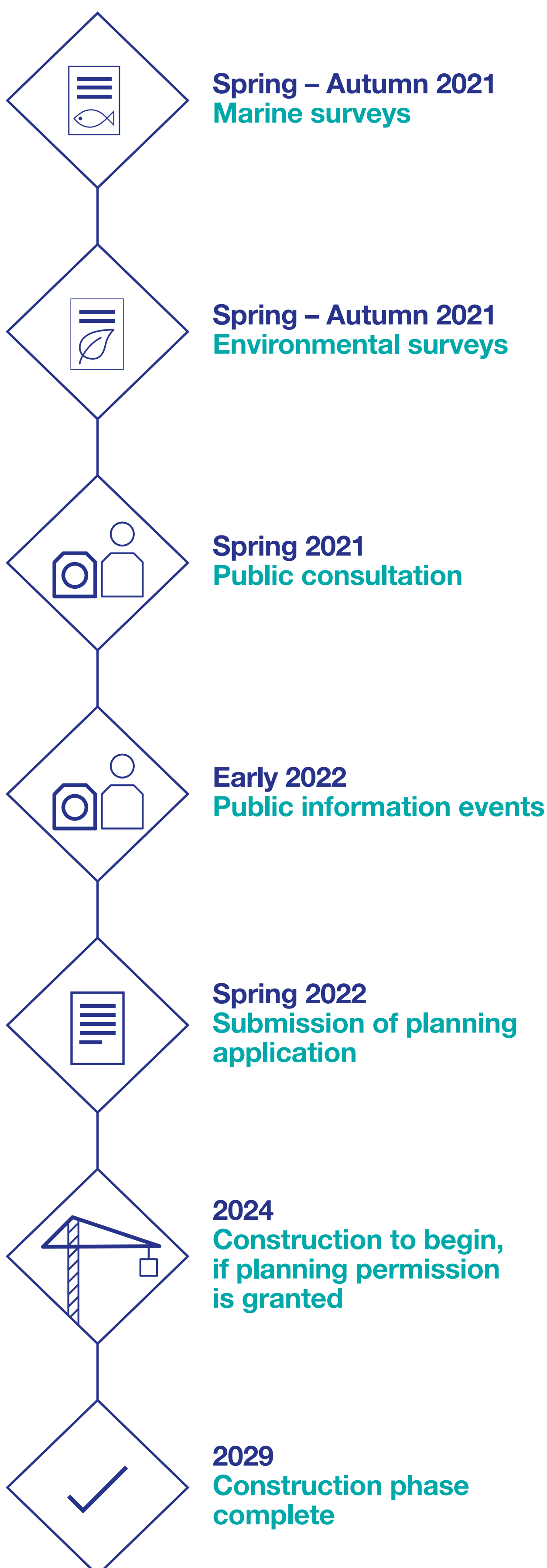
- **Wednesday 2 March  
6:30pm - 7:30 pm**

Alternatively, if you would like to **speak one-to-one with the project team over video call or telephone**, please get in touch with the community relations team via email or telephone (details listed below) to organise a time and date that would work for you.

## Providing formal feedback on our proposals

We are planning to submit our planning applications to Selby District Council and East Riding of Yorkshire Council in spring 2022. At that time, you will have an opportunity to provide formal feedback on our final proposal via the council's planning portal.

## Project timeline



If you would like a hard copy version of these boards or a leaflet, you can contact us using the details below. This information can also be made available in large print format, braille or other languages.

You can also contact us at **0808 1968 407** or **info@segl2.nationalgrid.com**

Please note that any data collected through this website or our information events will only be used to help understand views regarding SEGL2. The data will not be used for any other purposes.