

Eastern Link – Converter Station

At SP Energy Networks we keep electricity flowing to homes and businesses throughout Central and Southern Scotland, North Wales, Merseyside, Cheshire, and North Shropshire. We do this through the network of substations, overhead lines, and underground cables, which we own, operate and maintain.

We are undergoing unprecedented change to the way electricity is generated and used and as the distribution and transmission operator, we're committed to delivering a cleaner, greener future.

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

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

To meet our target, we need to increase the capacity of the electricity network between Scotland with the rest of the UK and Europe whilst ensuring Scotland remains supported by a secure and stable supply of energy.

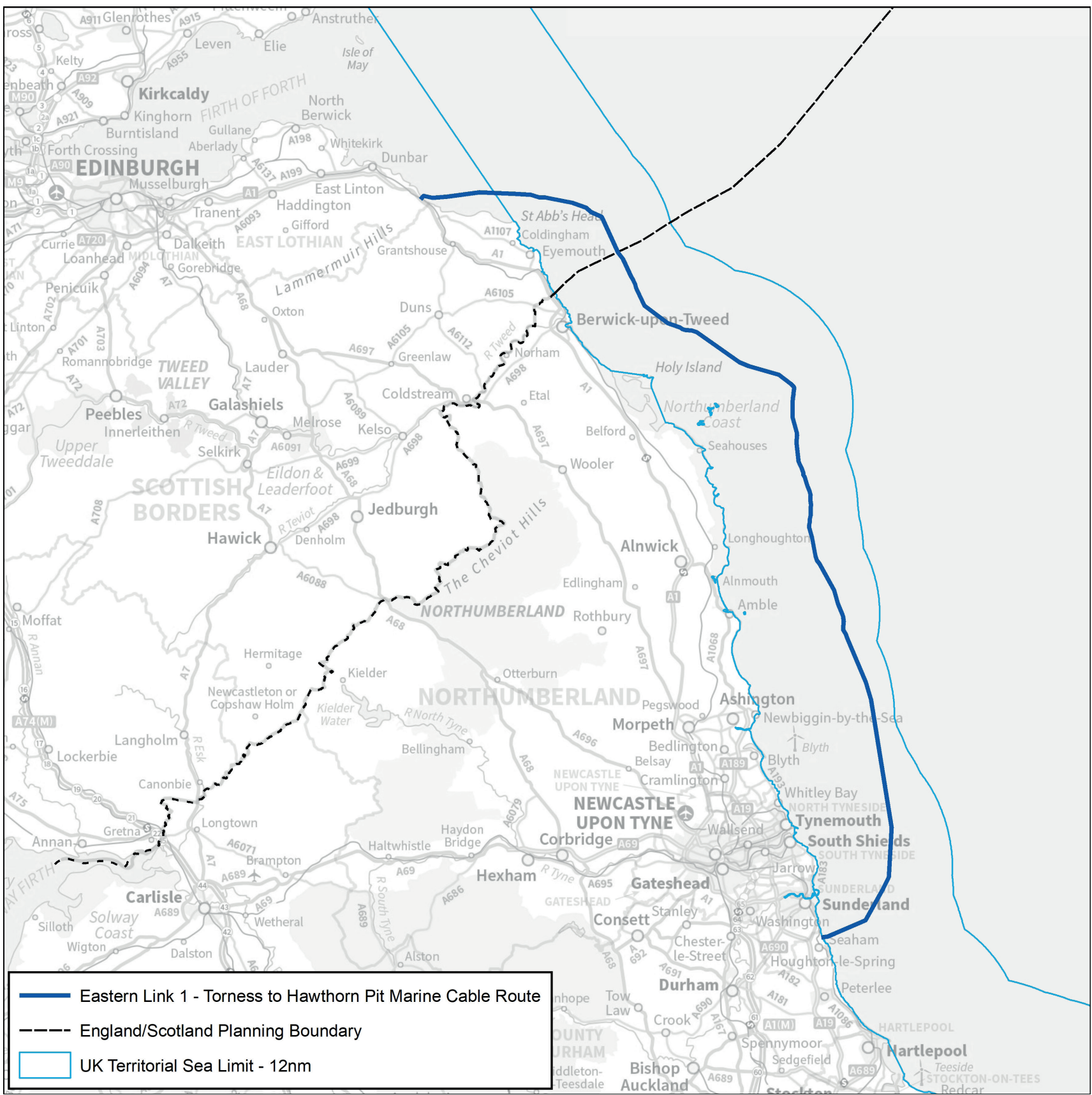
Scotland is committed to becoming net zero in all greenhouse gases by 2045, with England and Wales committed to net zero by 2050 and this will only be achieved by significant new investment and infrastructure in the electricity network.



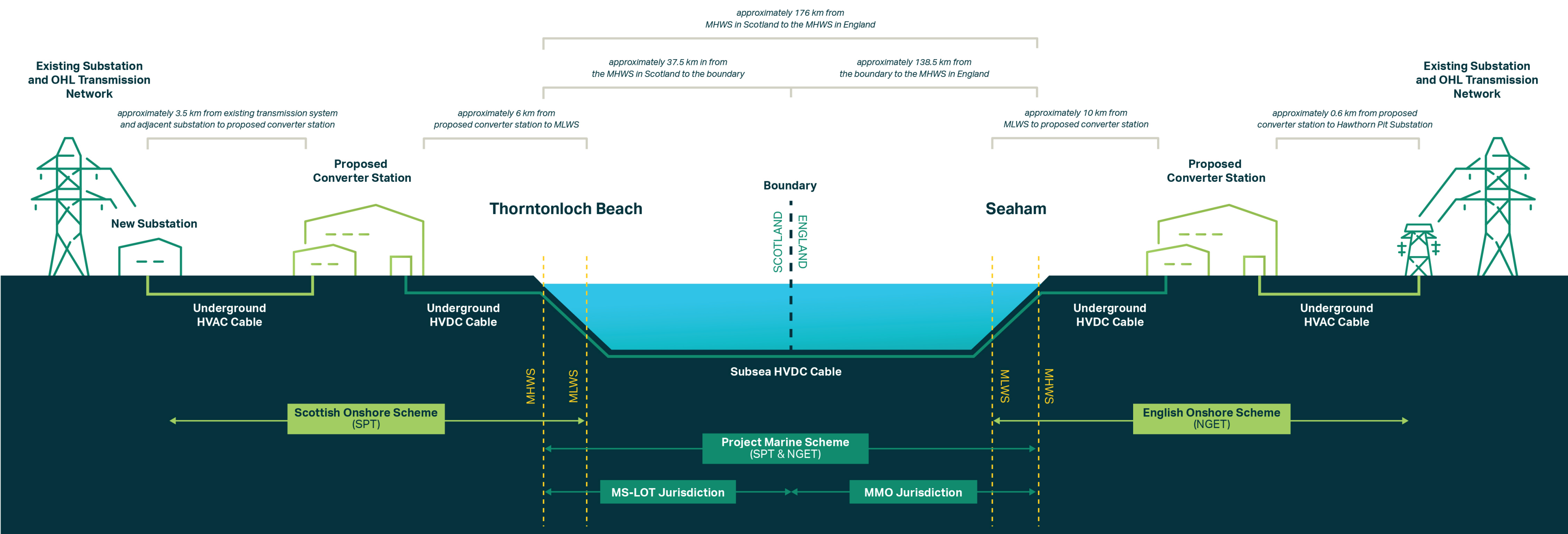
Eastern Link – Project Overview

The Eastern Link Project is a £1.3bn project that is being jointly developed by SP Energy Networks (SPEN) and National Grid Electricity Transmission (NGET). The project will facilitate the unlocking of rich renewable energy capacity around Scotland and support our drive toward our Net Zero targets in Scotland and across the rest of the UK.

The availability and source of renewable energy generated is constantly changing, therefore our network needs to be able to balance this through increased interconnection. This increased interconnection will guarantee Scotland's security of energy supply and making the transition to net zero by 2050 is expected to generate 60,000 jobs across the energy sector. To enable us to deliver this project, we need to build a new substation, converter station and lay underground and marine cables.



The Eastern Link project runs from the Torness area in East Lothian, Scotland to Hawthorn Pit, County Durham, England.



Key:
HVDC - High Voltage Direct Current
HVAC - High Voltage Alternating Current
OHL - Overhead Line
MHWS - Mean High Water Springs
MLWS - Mean Low Water Springs
MMO - Marine Management Organisation
MS-LOT - Marine Scotland Licensing Operations Team
NGET - National Grid Electricity Transmission
SPT - Scottish Power Transmission

Figure is not to scale.

Eastern Link – Project Overview cont.

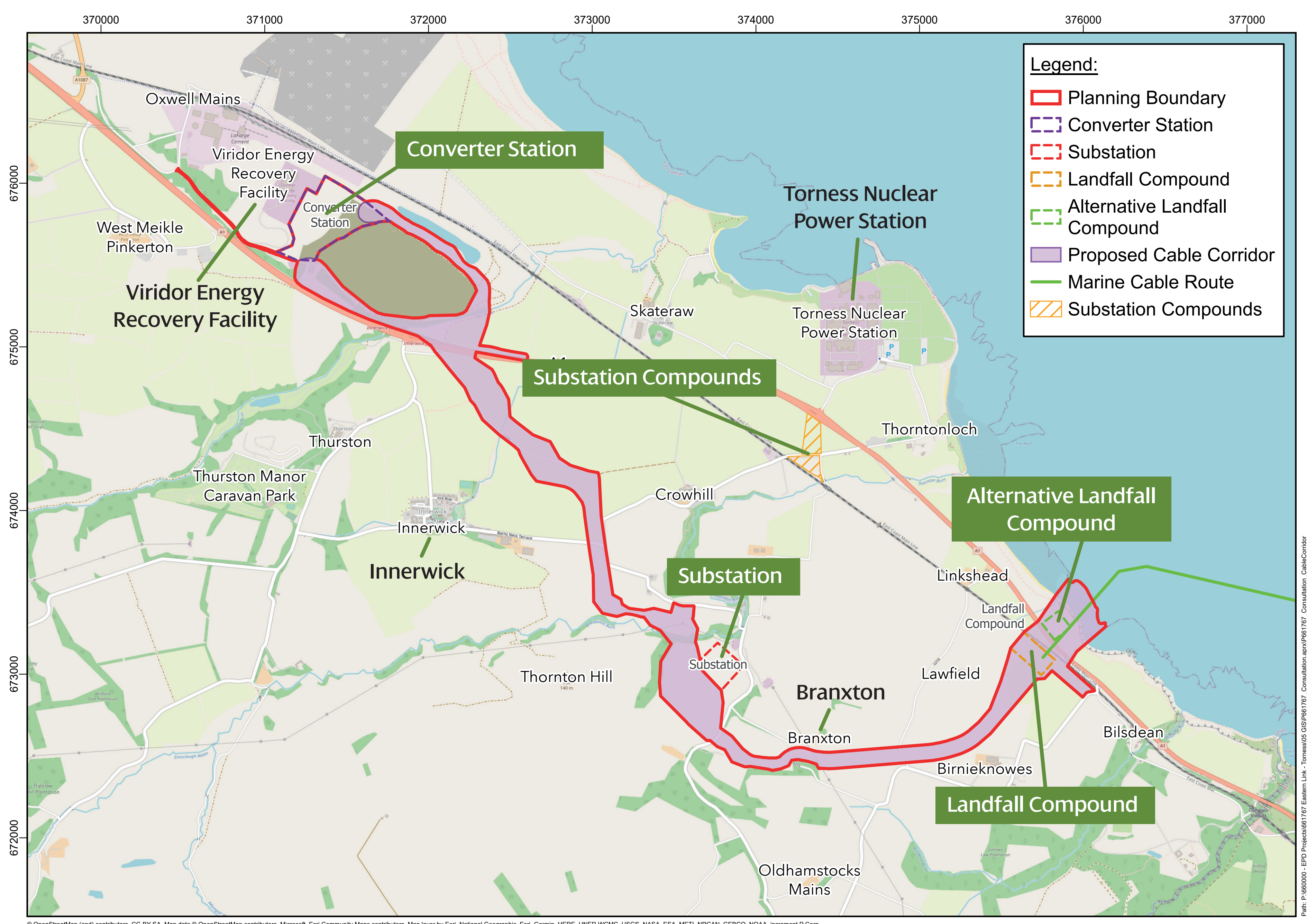
The UK electricity system is mainly AC (alternating current), which is ideally suited to local transmission and distribution of electricity as it is easily transformed in stages from high voltages required for longer routes to the voltages used in businesses and homes. However, where large electricity capacity is needed to be transmitted over long lengths of cable or overhead lines, the use of DC (direct Current) significantly increases both the efficiency and the stability of the wider network.

On the Eastern Link project, we will be using DC marine cables for the 176km of cabling between Torness and Hawthorn Pit. This will require converter stations to be built onshore at each end to allow the energy to be converted back into AC before it is transmitted through the network.

To enable and support the construction of the converter station in East Lothian there will be:

- Temporary landfall site compound where the marine cables will come onshore
- Approximately 6km of underground DC cables that will run from the landfall compound to the converter station at Oxwell Mains
- New converter station buildings and associated works (landscaping, access roads) at Oxwell Mains
- Approximately 3.5km of underground AC cables that will run from the converter station to the proposed Branxton 400kV substation.

Extent of Development



Eastern Link – Project Overview cont.

Landscaping

Field work has been undertaken to understand the current landscape features and identify sensitive locations to be considered as part of the assessment. The assessment will consider key views from locations across the local area and how the converter station can be integrated into the landscape. Mitigation will then be identified to help reduce any potential significant effects.

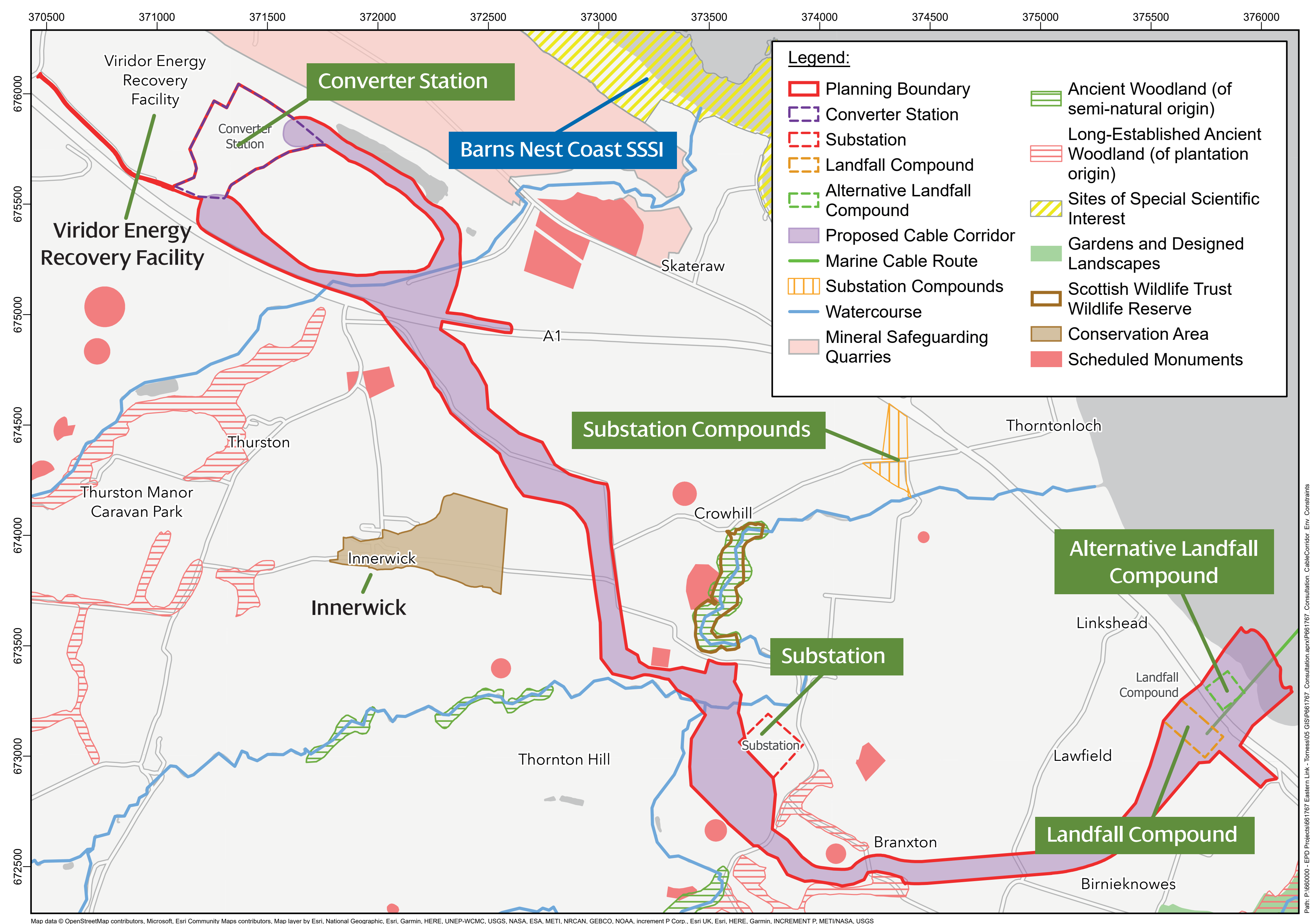
Location

During the process, we have considered access and residential areas, existing and planned energy developments, environmentally protected areas, sites of important historic and archaeological interest, fishing and wider marine requirements. From our initial analysis, we have then further

refined our assessment, taking account of technical constraints and engineering considerations. The site is adjacent to the existing Viridor Dunbar Energy Recovery Facility at Oxwell Mains. Our preferred option seeks to balance our technical requirements, cost of the work, the impact on the environment and the people who live, work and enjoy spending their spare time in the area.

The underground cable routes have been identified to avoid key environmental constraints such as protected archaeological sites, nature reserves and ancient woodlands. The underground cable routes will include excavated trenches for the cable installation, a temporary haul road to enable vehicles to move along the corridor, drainage and storage areas for the excavated material. The corridor will be reinstated following installation of the cables.

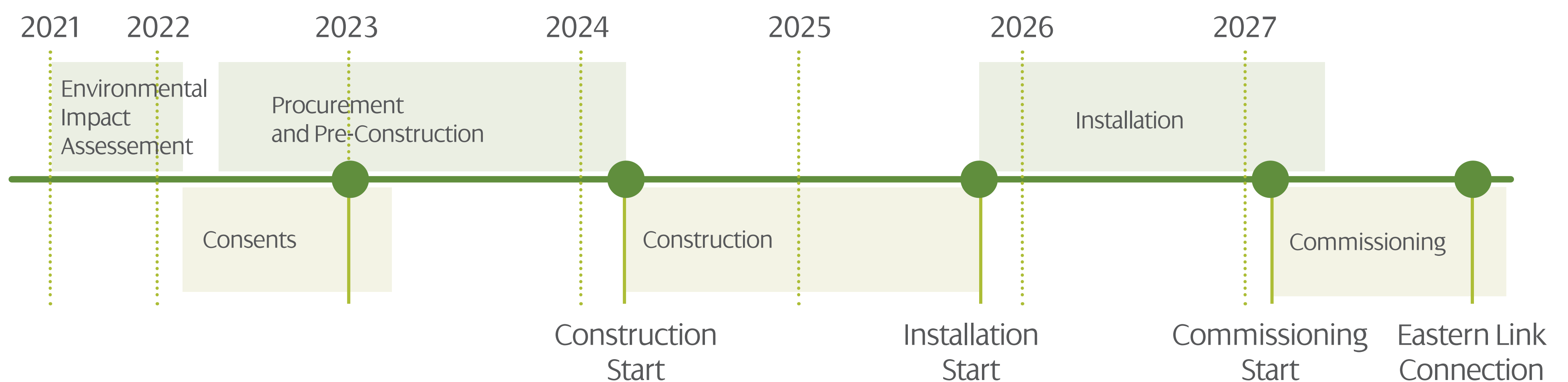
Environmental Constraints in Proximity to the Project



Next steps

SP Energy Networks will be submitting a planning application to East Lothian Council for the converter station and underground cables. A marine licence application to Marine Scotland will be required for the marine cables.

The consultation underway is the final step in our consultation on the project and is the statutory pre-application consultation required for both the onshore aspects of the project and the marine cables. Once the planning and marine licence applications are submitted there will be a further opportunity for comments on the project before East Lothian Council and Marine Scotland determine the outcome.



How to respond

We would welcome your feedback about our proposals, and you can give us your feedback by filling in a form on our consultation page:

https://www.spenergynetworks.co.uk/pages/eastern_link_introduction.aspx

The closing date for you to submit your feedback form is Monday 28th February 2022.

You will also be able to book a 1-1 meeting with the team and ask any questions you may have. You can book your 1-1 online at:

https://www.spenergynetworks.co.uk/pages/eastern_link_introduction.aspx

You can also view physical consultation materials at **Innerwick Library, EH42 1SE** between the 31st January and 28th February.

We will also be handing out information at the **Asda supermarket in Dunbar, EH42 1LE, on the 15th and 23rd of February between 10am and 2pm.**

If you would like a hard copy version of these boards, you can contact us using the details below. Our materials can also be made available in large print format.

You can contact us at: info@tornesseasternlink.com

