LionLink
Project overview

March 2025

LIONLINK

What is LionLink?

National Grid Ventures (NGV) is developing plans to build LionLink, a new subsea cable (known as an interconnector) between the UK and the Netherlands. LionLink will bring offshore wind energy to the UK by connecting to a Dutch offshore wind farm.

It will enable the flow of energy between the UK and Dutch electricity systems.

LionLink will connect enough energy to the UK's electricity grid to power approximately 2.5 million homes. It will play an important role in keeping household energy bills down and providing the UK with a secure and reliable energy supply.

LionLink will deliver a range of benefits, including:

Powering 2.5 million homes

Strengthening the UK's national energy security.
Supplying enough energy to power approximately 2.5 million homes.

Savings of £300 million

Lowering energy bills.
LionLink is expected to save UK consumers almost £300 million in its first ten years of operation.

Clean, renewable energy

Providing clean, green, renewable energy.
The carbon savings of its first year is equivalent to taking nearly 600,000 cars off the road.

What is an interconnector?

Interconnectors are high-voltage, primarily subsea cables that connect our electricity system with neighbouring countries, allowing us to import or export energy depending on supply. NGV already has six interconnectors connecting the UK to France, Belgium, Norway, Denmark and the Netherlands.

By sharing energy between countries when supply is high, interconnectors help strengthen the security and reliability of different energy systems, and lower consumer bills.

By connecting to an offshore windfarm, interconnectors like LionLink create the means to introduce more clean renewable energy into the system. As we continue to move toward renewable energy sources, the percentage of energy transferred by LionLink that is renewable will also increase over time.

Whilst over 80% of LionLink will be offshore some onshore infrastructure is required to connect energy to the grid.

How will LionLink work?

LionLink will transmit electricity under the North Sea through underground subsea cables, which will come onshore at the landfall site in Walberswick. The electricity will then be transmitted via underground cables to the proposed converter site at Saxmundham.

Infrastructure

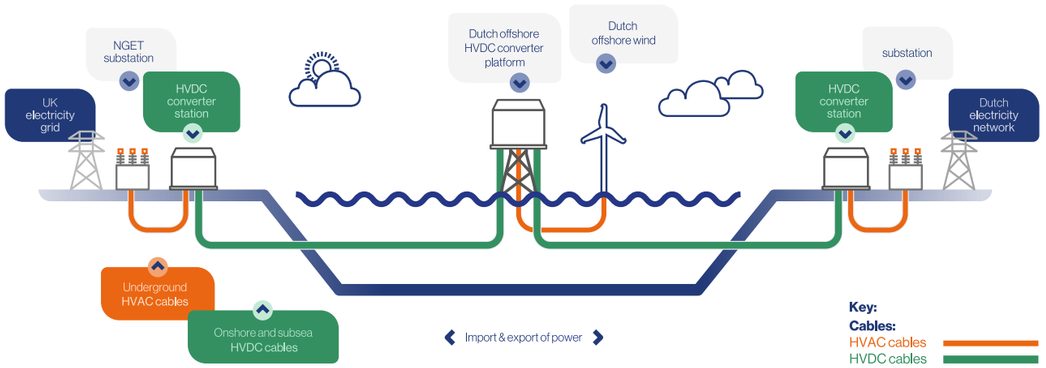
Landfall site
The landfall site at Walberswick will be where the subsea cables are brought onto the land and are connected to the onshore cables. There will be no visible infrastructure left on the beach or shoreline.

Converter station
At the converter station in the Saxmundham area, power will be converted from High Voltage Direct Current (HVDC) into High Voltage Alternating Current (HVAC) so that is ready to be fed into the high-voltage grid.

Substation
Energy is then transferred to a substation to connect to the grid to be used by homes and businesses. A connection from the existing electricity grid will be made via the planned substation near Friston. This substation has already been granted development consent as part of a development by Scottish Power Renewables.

Cabling
All cables for LionLink will be subsea or underground. A subsea HVDC cable will connect Great Britain to the Netherlands, connecting to the UK via our landfall site and then onshore to our converter station. Underground HVAC cabling will then connect our converter station to the substation in the Friston area.

Offshore converter station platform
This will have capacity to connect to Dutch offshore wind. The offshore converter station will be in Dutch territorial waters and will be owned by our Dutch partners, TenneT.



Coordination

We're working with developers like National Grid Electricity Transmission (NGET), who are developing the Sea Link interconnector, to minimise environmental and community impacts by:

Sharing resources, such as materials and site compounds.

Aligning construction activities and mitigation measures.

NGV and NGET are collaborating on co-locating infrastructure for LionLink and Sea Link, identifying a shared converter site at Saxmundham. We will continue coordinating construction plans with other local projects.

Frequently asked questions

Construction and traffic

You asked
Will LionLink require hundreds of daily HGV movements?

We answered
No, LionLink is unlikely to need this number of HGV movements. For example, on our recently completed Viking Link project there was a peak of 60 HGV movements at the height of the construction period. Whilst exact numbers for LionLink will be determined later in the project's development, Viking Link is a comparable interconnector project in scale. Factors such as proximity of construction materials and suppliers will influence this figure, and we will always seek to use local suppliers where possible.

We will avoid movements at peak times and via routes with schools and / or through small villages. Temporary roads will also be built to avoid public roads – these will be restored once construction is completed. We appreciate that the cumulative impact of projects in the area is of interest to residents. NGV is continuing to liaise with other developers to understand where we may be able to coordinate construction activities and minimise impacts.

Environmental factors

You asked
Will Walberswick beach need to be closed now that you are making landfall there?

We answered
No, Walberswick beach is intended to remain open and there will be no construction on the beach. We will drill underneath the beach to bring the offshore cable onto land. The offshore and onshore cables will be connected underground. This is called the transition joint bay. No visible infrastructure will remain at this point.

You asked
Will digging trenches for the cable route damage the environment?

We answered
Cable trenches will not be required across the whole cable route. When installing cabling under sensitive environmental areas, such as rivers, streams and heritage woodlands, we can instead use trenchless construction methods such as Horizontal Directional Drilling. This would install cabling with minimal impact at sensitive locations, helping to preserve ecosystems. Where the cable is installed via a trench, all soil excavated will be stored and reused on site to reinstate the land to pre-construction conditions following the completion of works.

Frequently asked questions

Site alternatives and design evolution

You asked
Can more infrastructure be hosted offshore?

We answered
All energy projects require some onshore infrastructure to connect to national electricity systems via substations – this cannot be avoided. Over 80% of LionLink's UK infrastructure will be offshore, but it still needs an onshore connection to the UK's electricity grid.

A first-of-its-kind project, LionLink's technology will enable us to reduce onshore infrastructure by connecting to windfarms offshore. LionLink is a key step toward an integrated grid and will pave the way for greater offshore coordination.

Innovative new projects like LionLink will help to address the regulatory, financial and legal challenges that currently limit more expansive offshore coordination. However, the point remains that all projects require an onshore connection – this cannot be avoided.

You asked
Does all the energy from LionLink get transferred solely to London?

We answered
The energy brought to the UK via LionLink will be distributed across the national transmission network. This will ensure it meets increasing demand for energy and the development of renewable energy sources across the country, not just in London.

You asked
Why isn't LionLink utilising existing brownfield site?

We answered
There are no suitable brownfield sites near Leiston where our connection agreement was granted by the Energy Systems Operator. The proposed substation near Friston enables onshore coordination with other projects, like Sea Link.

Bradwell for example, would not be viable as we must approach the shore from the Dutch windfarm in the North Sea, a longer marine cable would be needed here which would require more cable crossings of protected marine sites and result in the significant loss of marine habitat.

Scan here for more answers to your frequently asked questions.

We want to keep you informed and hear your views on LionLink. We have a dedicated project website, email address and Freephone information line available for you to use at any time. If you have any questions about the project, please don't hesitate to contact the project team using the details below.

Thank you for your ongoing interest in the LionLink project.

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