The Great Grid Upgrade

Sea Link

nationalgrid

Community update

February 2025

Courtesy of NGV

As the UK moves to cleaner, more affordable sources of energy such as offshore wind, our infrastructure needs to be upgraded to connect this power to homes, businesses and public services.

Through The Great Grid Upgrade, National Grid is carrying out the largest overhaul of the electricity grid in generations. As part of this upgrade, we are developing plans for Sea Link, a proposed 138 km connection between Suffolk and Kent.

Around 122 km of Sea Link's cables would be out at sea. Where it is planned to come onshore at Pegwell Bay, the cables would be installed underground. From there, underground cables would connect to a converter station and substation near Minster.

To connect Sea Link into the existing electricity network we are proposing to remove some of the existing overhead line and pylons and replace them with new ones. The electricity will then flow into the Grid to be transported to where it is needed across Kent and the rest of the country.

Local communities in Suffolk and Kent have provided helpful feedback on our proposals for Sea Link across several stages of consultation held over the past few years. In this update, we are providing answers to some of the most common questions about Sea Link.

Key facts

Sea Link would strengthen the electricity network's ability to carry power from electricity generators to where it is needed.
Sea Link is not a wind farm and is not an interconnector which transports power between countries.

122 km – or 88% – of the Sea Link cables are offshore, with the cables coming onshore deep underground.

Around 3% of the cable would be onshore and underground in Kent, with the remaining 9% of cabling in Suffolk.

Sea Link must be near the existing transmission network in Richborough.
The further away Sea Link is from the existing network, the more high voltage infrastructure would be required, such as overhead lines and pylons.

We will not be trenching through the saltmarsh.
Cables would be installed beneath the saltmarsh using trenchless construction techniques to avoid disturbing the environment.

Benefits

2 million homes
could be powered through the energy carried by Sea Link.

Boosting energy security
by helping reduce our dependence on imported gas.

Lowering energy bills
by connecting the Grid to more affordable forms of electricity generation.

Your questions answered

1 Why is Sea Link connecting here?

The high voltage electricity grid is a network across Britain. Some parts of it need to be upgraded so we can continue to benefit from a reliable flow of electricity.

The existing network which runs between Kemsley in Sittingbourne (via Canterbury and Richborough) and Lovedean in Hampshire is one area that needs upgrading. This means that Sea Link needs to connect between these two locations. A connection straight to the Isle of Grain is too far north and a connection to Kingsnorth is both further north and further west of where Sea Link needs to be.

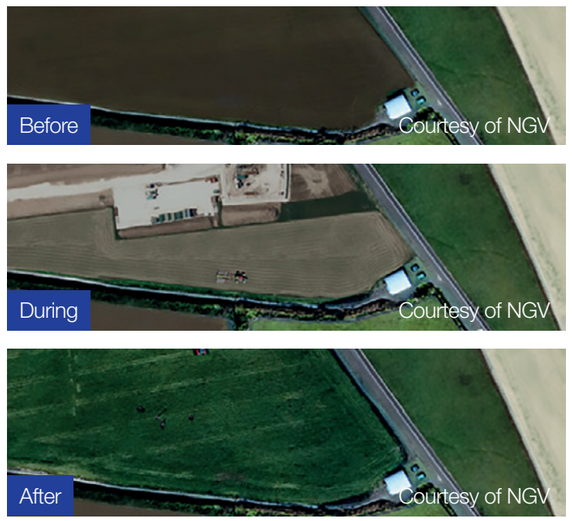
2 Why is the converter station located near Minster Marshes and not on a brownfield site?

At the start of the project, we considered different locations, including brownfield sites in the Richborough area for the converter station, such as around Richborough Energy Park and Richborough Port. There were no brownfield sites in the area large enough for the infrastructure required as part of Sea Link, such as the converter station, or near enough to where we need to connect.

We looked for other sites in the Manston area that could be suitable for the converter station, but they are further away from the existing network and where the project would come ashore. Building the converter station near Manston would mean a further 5 km of new transmission infrastructure would be needed.

Example 1

Example 2



3 Will Sea Link damage the environment?

Sea Link would help to connect homes and businesses to cleaner, greener, more affordable electricity. Decarbonising the electricity grid is vital for tackling climate change – the biggest threat to nature.

We will not be trenching through the saltmarsh. Cables in this area would be installed using a trenchless construction method that would not disturb the ground above.

Some cables for the connection to the converter and substation would be installed using open trenches. Once construction is complete, the land will be restored. We are considering measures that we may implement to reduce the impact in these areas, such as the use of seasonal working.

You can find two examples of construction and restoration works from previous National Grid Ventures projects above. The images are of previous underground cable construction sites.

4 Can't we build an offshore grid?

There is no such thing as a fully offshore grid. Power will always need to come ashore by cable to reach homes and businesses on land.

Underground and offshore high voltage direct current cables which can carry more power than 2 GW do not yet exist. If they did, it would mean more, not less, onshore infrastructure as more converter stations would be needed to cope with these cables. This is evidenced in the 'offshore' solutions being progressed in other countries.

In Belgium, the 3.5 GW from the proposed Princess Elisabeth Island will be connected to the onshore network by up to 10 cables coming ashore. To carry this energy to homes and businesses, over 100 km of new overhead lines and approximately 20 km of new underground cables also need to be built.

The German and Dutch transmission network operator TenneT is building at least 13 individual 2 GW connections from offshore wind farms directly to land. Each connection will use three cables, instead of the two used by Sea Link, and will have a converter station the same size as Sea Link. This approach does not mean that less infrastructure is required.

The evidence shows the offshore grid approach does not mean that less onshore infrastructure is required. An 'offshore solution' would not be faster or cheaper. It would involve a significant redesign of our project, delay the delivery of Sea Link and prevent new renewable energy connecting when it is ready. This will be costly to the economy, the environment and electricity bill payers.

Whilst we always look to new technologies and different ways to future-proof the network, it is vital that Sea Link is in place by 2030.

Project timeline

October – December 2022
Non-statutory consultation

October 2022
Environmental impact assessment scoping submitted to the Planning Inspectorate

October – December 2023
Statutory consultation

July – August 2024
Targeted consultation

Now
Updating stakeholders

Early 2025
Submission of development consent order application

Summer 2025 – Summer 2026
Pre-examination, examination and reporting

Winter 2026
Secretary of State decision

2026 – 2030
Construction

Next steps

We are planning to submit our application for development consent early this year. For now, we are continuing to carry out survey works, which will help us understand more about any potential impacts and how we can avoid, limit, or mitigate them.

What survey work is happening?

We are currently undertaking surveys to look at archaeology and ecology around the project area. We regularly update our website (**nationalgrid.com/sealink**) with our ongoing and upcoming surveys.

Courtesy of NGV

Find out more

Scan the QR code or visit our website at **nationalgrid.com/sealink** to find out more about our proposals.

You can contact us at: **contact@sealink.nationalgrid.com**, or by calling **0808 134 9569**.

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