DCO response.

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My response to the DCO for Sea Link is as follows:

My first point to make is that my house, in the current make is that my house, in the current boundary of the convertor station proposed site in Saxmundham, so the points I am making do affect me directly due to proximity of the convertor station and my property.

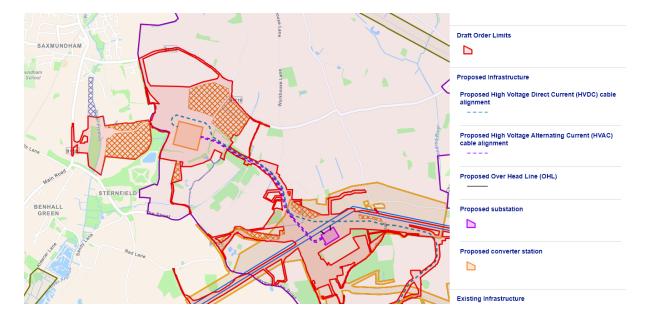
Cumulative impact:

When planning was given for the Substation at Friston, concerns were raised by the inspectors regarding the cumulative impact of future projects. As there were no applications in place at the time these could not be considered in the final decision.

Now in 2025, we are being overwhelmed with 6 energy projects in a 5-mile area of Saxmundham.

Sizewell C
Scottish Power EA1 and EA2
Town Farm Solar Park
SeaLink
Manor Park Solar Farm
LionLink.

The impact of these combined infrastructure projects on this small area is devastating, where there are over 400 acres of brown field land at the Isle of Grain that could elevate at least some of the strain on the communities here.



The map above shows the increasing impact on Sternfield and Saxmundham.

My property is is across open fields, so limited screening and noise pollution will be an issue. This is new to the original proposal from National Grid before DCO.



Red line shows Glebe Farm and proposed new access road.

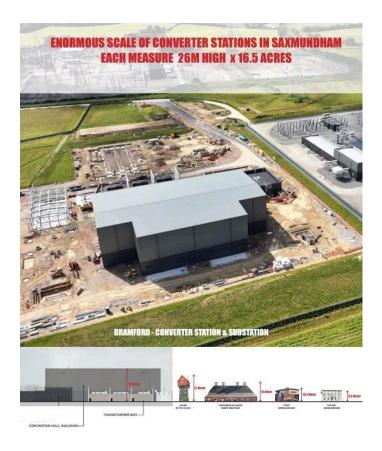
A very worrying element of the map is the fact that LionLink has clearly identified our meadow as within the LionLink boundary.

The interactive map identifies the area below in purple as the LionLink boundary,	
	At no point have National Grid mentioned this to us and
	that meadow for wildlife and as a wildflower
meadow.	, around 14% is in this area.



How can National Grid and LionLink identify areas that they do not own, and without any consultation add those areas to their boundary map.

The visual impact of these is not being shared with Government ministers. To show the full extent, this is just 1 of the possible 3 convertors for the site. In fact, this is a smaller convertor as it is half the wattage of the Saxmundham convertors.



A more realistic image is where SeaLink and LionLink if built will look as below:



The image being shown to ministers by National Grid is a lot smaller and gives a view that the development is far less of an impact on the region:



Another concern is that all comments concerning the visual aspect of this site are focussed on the view from Saxmundham. There is no concern being given to the view from the Street going through Saxmundham to Friston where these massive building will dominate the skyline.

Light pollution

Converter stations, particularly onshore ones as with SeaLink, will contribute to light pollution. Thise large installations, with the significant footprint and height (excluding LionLink, and SeaLink 2 proposed), require extensive lighting for security and operation, which will spill onto surrounding areas, impacting the local environment and causing nuisance.



Visual Impact:

The bright lights of converter stations will be visible from considerable distances, disrupting the natural darkness and creating a visual disturbance, as noted in the SeaLink project discussion.

Light Intrusion/Nuisance:

The artificial lighting can intrude into nearby homes and areas, potentially causing discomfort or impacting activities that rely on darkness, <u>as mentioned in a report by ScottishPower Renewables</u>.

Spill Light:

Unshielded or poorly directed lighting can spill light beyond the intended area, further contributing to light pollution and potentially impacting sensitive ecosystems, <u>also mentioned in the ScottishPower Renewables report</u>.

Environmental Impacts:

Light pollution can affect wildlife, particularly nocturnal animals, by disrupting their natural behaviours, such as foraging, mating, and migration, <u>as discussed in the UK Fab Link report</u>.

Noise pollution - Post completion:

Converter stations, especially those for High Voltage Direct Current (HVDC) or Ultra-High Voltage Direct Current (UHVDC) power transmission, can be significant sources of noise pollution. The primary noise sources are transformers and associated cooling equipment, but other equipment like reactors, capacitors, and harmonic filters also contribute. This noise can be a problem for nearby residents and is a concern for environmental impact assessments. The

SeaLink placement of this convertor station, while in a rural area, it is a populated area and will impact more than 5000 people of Saxmundham, Benhall, and Sternfield.

Sources of Noise in Converter Stations:

Transformers:

Converter transformers are a major source of noise, particularly in the 300-500 Hz frequency range. The noise is generated by the core's magnetostriction and is often steady-state, but can fluctuate with changing electrical load.

Cooling Equipment:

Fan-based cooling systems and other equipment associated with transformers also contribute to the noise.

Other Equipment:

Reactors, capacitors, and harmonic filters used in converter stations can also produce noise.

Harmonic Noise:

The frequency of the noise produced by transformers and other electrical equipment can be twice the normal operating current frequency (e.g., 100 Hz in the UK) due to magnetostriction.

Noise Characteristics:

Steady-State Noise:

Much of the noise from converter stations is steady state, meaning it is consistent under normal operating conditions.

Tonal Noise:

The noise generated by transformers is often described as tonal, meaning it has a distinct pitch.

Frequency Range:

The primary frequency range of noise from converter stations is between 300-500 Hz.

Impulsive Noise:

While not expected to be impulsive, changes in electrical load can cause noise levels to fluctuate.

Noise pollution - Construction:

The recent archaeological digs at the site gave me cause to complain to the planning department of Suffolk Council, the constant loud beeping of heavy construction traffic moving around the field went on for hour after hour. This was a small sample of what is likely to come should planning be permitted as we will be looking at construction for the next 5 years.

Working hours:

The proposed working hours

The 07:00 to
19:00 weekdays, then the 07:00 to 17:00 for Saturdays, Sundays and Bank Holidays means that
for the next 5 plus years there will not be a day that construction noise will be a constant

pollutant to my location. If you add to that the 1 hour at each end of this period for start-up and shutdown, we could have noise impact from 06:00 to 20:00 every weekday.

All other projects in the area, Sizewell C, Sizewell C park and ride site build, and Sizewell Road building at Friday Street as a good example, work from 08:00 to 17:00 weekdays and do not work weekends.

Why do National Grid need to have working hours that far exceed other building sites, both infrastructure and I believe residential sites where planning will not allow late or weekend working.

It is an impact on the 5000 plus local people that will be blighted by these extended hours.

Traffic:

As a rural community, we are already heavily impacted by the volume of abnormal loads, tipper trucks and HGV's travelling to Sizewell C for both the main site and the associated works on roads and park and ride sites.

The peak outlook (excluding weekends and holidays) is predicted to be over 550 additional vehicle movements per day, of which around 350 of these will be HGVs. The A12 is already a busy route and the additional traffic will make any journeys needed far slower as the roads will likely be congested.

This is just for SeaLink, should other convertors be approved as with Lion Link, then this traffic can only increase for many more years.

With reference to the railway bridge at Benhall, it is rated at 44 tonnes, and the large transformer part delivered to Bramford sub-station weighed in at 470 tonnes, is 77 metres (252 feet) long, and 4.85 metres (15.85 feet) wide.



This would be one of many, so how do they plan on moving this size load over a bridge rated at 10% of this loads weight?

This is also something that will need to be taken into account for the bridge crossing the Fromus being proposed.

Unsuitable location for site access:

The SeaLink project's proposed Saxmundham location has faced significant opposition due to concerns about its impact on the town's historic character, landscape, and the surrounding environment. Specifically, the large converter station and cable routes are considered unsuitable due to their visual impact, noise pollution, and the potential disturbance of sensitive areas like the River Fromus and the Grade II listed Hurts Hall.

Impact on Saxmundham Character:

Industrialization of Eastern Saxmundham:

The proposed converter station, which would be up to 26 meters high, is seen as an industrial intrusion on the outskirts of the town, potentially undermining its historic charm.

Loss of Landscape Integrity:

The scale of the project is considered inappropriate, potentially damaging the landscape and views of important locations like Hurts Hall and St John the Baptist Church.

Impact on Residential Areas:

The proximity of the converter station to residential areas raises concerns about noise and light pollution, as well as the potential disruption of everyday life.

Concerns about Access and Route: Limited Access Options: The rail bridge between the proposed access and the A12 has restrictions for heavy vehicles, limiting options for access to the converter station.

Disruption to Traffic:

The proposed routes for the cables could cause significant traffic disruption, particularly within Saxmundham, which already faces congestion.

Environmental Impacts:

The cable routes themselves are also seen as potentially disruptive to the surrounding environment, particularly in areas of high ecological sensitivity.

Call for Alternatives:

Review of Alternative Locations:

<u>Suffolk County Council</u> and other stakeholders have called for a thorough review of alternative locations for the converter station and cable routes, including those with less environmental and social impact.

Integration with Other Projects:

There's a call for the SeaLink project to be integrated with other infrastructure projects to minimize the overall impact on the environment and local communities.

The location of the site in general makes no sense in the rush to Net Zero. It is an unprecedented location of convertor station close to population of over 5000 people. To put such a massive development so close to a community of this size, with the risk of electric emission which may cause cancer in children has not been thought through.

There is no current infrastructure to the site due to the rural location, access roads will need to be built including a permanent 6-metre-high bridge to cross a river and get to the site. The bridge, which seems yet to be fully designed, looks to need a minimum of 80 metres ramp to cross the river, this can only add enormous costs to the whole project.

There will need to be further land lost for the construction site, parking and storage, all being an eyesore on the views of Saxmundham.

Isle of Grain alternative site:

Nautilus interconnector project, originally planned for Suffolk, has been moved to the Isle of Grain in Kent. This decision was made by Ofgem following a consultation and after receiving community and stakeholder feedback. National Grid Ventures, the project promoter, stated that the Isle of Grain offered a better location, with existing energy infrastructure and a potential shorter offshore cable route to Belgium.

I was intrigued by the Isle of Grain and what is there as a brown field site. Looking on Google maps it is a massive old industrial site with what looks like old sewage plants.

I tried took a rough area map to see how much land is unused, it's a bit subjective as not always clear on Google, I think the map below shows the area that seems to be neglected and barren now.

I made it approx. 1.92km2 area that looks barren. That is 474 acres so enough for all the infrastructure to be built.

It looks like there is a train line to the area which must help with construction material movement, and National Grid are already there.



By locating SeaLink at the Isle of Grain, along with Nautilus give construction savings, easy access and connection to the grid is already there at the National Grid site which can be upgraded.

Environmental impact:

SeaLink is showing no concern for the areas that will be destroyed with this development, the cable landing point will come directly through the Warren Nature Reserve at Thorpeness, a vital breeding and migration point for thousands of birds, plus associated wildlife in the area. The same is said for the location of the Kent Convertor station which is in the idle of a wetland nature reserve of Minster Marshes with the cable landing at the beauty spot of Pegwell Bay. These sites are thousands of years old, and the so-called mitigation offered by National Grid will never allow these sites to fully recover and they will be lost for ever.

These protected sites are vital refuges for rare and legally protected species. Beavers, hares, skylarks, barn owls, slow worms, and lizards.

The footprint of the area designated by National Grid has grown, according to the interactive map, The treeline as marked by area 3 below is a rich and ancient corridor for wildlife.

A measurement of circumference of the many Oak trees gives the following:

- 2.85 m 1st oak.
- 4.9 m 2nd oak. Approx age 290 years!
- 2.6 m 3rd oak.

Bluebells.

- 4.1 m 4th oak. Approx. 235 years old.
- 3 behind 1.6 m 1.9m.
- 1.9 m 5th oak + bluebells.
- 2.4 m 6th oak.

Field maple ash hawthorn.

Estimate 3m 7th oak.

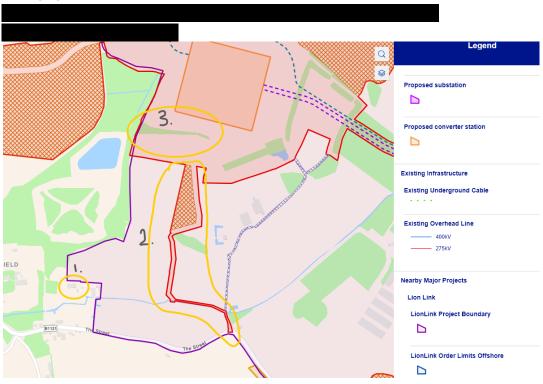
Corridor between 2 farms approx. 10 m wide.

8th oak approx. 2 m.

- 2.6 m 9th oak.
- 2 m 10th oak.
- 2.6 m 11th oak.
- 2.3 m 12th.

1m 13th oak.

The age guide is from the Woodland Trust



National Grid identified 63 hedgerows on the Suffolk onshore survey, of which it states some are defunct. This is their opinion and where there are currently incentives across the UK to plant hedges and support wildlife corridors, the possible destruction of up to 63 hedges will destroy local wildlife and their habitats.

Offshore solution:

I have seen with interest that the direction Nation Grid promote is for Offshore solutions, and is clearly covered in their own promotional video at:

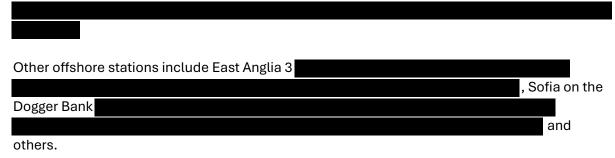


Abdi Osman an Electrical Engineer at National Grid states "tomorrow's solution: Offshore wind and interconnectors in harmony - Offshore Hybrid Asset (OHA)

Today, offshore wind and interconnectors operate alongside each other, connecting to the shore individually. In the future, offshore hybrid assets could enable offshore wind and interconnection to work together as a combined asset."

National Grids own information shows a saving of around £6,000,000,000.00 by going offshore.

Hornsea 3 for example has 2 offshore convertor stations:



A new news item confirms the Dogger Bank installation of the sub-station.

This must be a better way than destroying communities, and countryside for the sake of shareholder profit.

The argument from National Grid that there is no offshore solution is not valid as not just UK projects but many others around the world are following the offshore route. This is cheaper, faster and less damaging onshore solution which puts the environment and people before the profits of the shareholders of National Grid.

With regards to infrastructure at the Isle of Grain, National Grid are already upgrading the network there.

As one of NG's arguments is there is no infrastructure at Grain, this looks like they are upgrading the network there which may help our argument that all these projects should terminate there.

https://www.kentonline.co.uk/gravesend/news/huge-cross-county-power-tunnel-approved-as-government-pledge-321239/

Fire risk:

A major fire at the Sellindge converter station in Kent, UK, significantly impacted the Interconnexion France Angleterre (IFA) interconnector, a key high-voltage power cable linking the UK and France. The blaze, which started around 12:30 am on September 15, 2021, forced the shutdown of the 1GW interconnector and led to a period of 1GW capacity being unavailable, according to the National Grid, reported by 4C Offshore. The fire caused substantial damage to the DC Hall (converter station) and the wider site,

Response: 12 fire engines and other specialist vehicles responded to the fire, with firefighters using compressed air foam, according to Current News.

The smaller Heathrow fire earlier this year, required ten fire engines, two bulk foam units, and one high-volume pump needed to be deployed to a fire at a substation near Heathrow Airport. This deployment equates to roughly 70 London Fire Brigade (LFB) personnel. This is a tiny unit compared to the proposed convertor stations and cover needed in an emergency.



Another fire on 29th April in London https://www.westminster.gov.uk/news/electrical-substation-fire-maida-vale required 100 fire fighters to attend.

With SeaLink, and now LionLink which needs to be considered, there is insufficient fire coverage to cover a fire at these convertor stations as the rural nature of Saxmundham and surrounding villages means the closest manned station is in Ipswich with all other stations being part time.

In addition to this, the building of the huge Substation in Friston adds to the fire risk as the potential for a fire can only increase with the amount of infrastructure being built.

The risk of not just the fire, but the pollutants that will spew over the surrounding residential area has to be addressed.

Flood risk:

The removal of many acres of farmland and the water retention of that land has been only partially addressed. Currently if we have heavy rain, the drainage ditches and footpath near the site overflow. By removing any ability of the land to hold water in the ground has been taken away and will cause additional flood risk as the water will leave the convertor station area quickly and flood the local area of Saxmundham, and Sternfield.

Rain on the 27th of January 2025 caused the ditches to overflow, this is not uncommon.





Same area before rain:



A few small catchment areas on the site will not hold sufficient water to stop my property from flooding.

Compensation for house devaluation:

Nowhere in the DCO has any regard been given to the loss of value of property. We have spent almost 3 years no upgrading and modernising our house. With the SeaLink proposal less than 500 metres from my property, it is now either unsaleable or devalued so much that we would make a massive loss if we were able to sell.

We purchased our property in 2022 and have invested in heavily in restoration costs, we were aware that Nautilus may have been sited there, the current expansion now with the additional convertor stations, and other infrastructure has impacted the value of our property and will kill this region.