SUFFOLK ENERGY ACTION SOLUTIONS

By post and email: Secretary.State@energysecurity.gov.uk **Date:** 30 July 2026

The Rt Hon Miatta Fahnbulleh MP
Secretary of State for Energy Security and Net Zero

CC:
Prime Minister, **The Rt Hon Andy Burnham**
The Rt Hon John Healey MP – Chancellor of the Exchequer
The Rt Hon Dame Angela Eagle DBE MP, Secretary of State for Environment, Food and Rural Affairs
Jenny Riddell-Carpenter MP, Parliamentary Under-Secretary of State, Department for Environment, Food and Rural Affairs and MP for Suffolk Coastal
Polly Billington MP, Parliamentary Under-Secretary of State, Department for Energy Security and Net Zero and MP for East Thanet

Dear Secretary of State

Re: Sea Link DCO Application (EN020026) – Saving of £2.5 billion

Congratulations on your new appointment as Secretary of State.

Today, the Examining Authority submitted its Report and Recommendation to you on the proposed Sea Link HVDC electricity transmission project between Suffolk and Kent. We are writing to highlight a significant value-for-money issue that we believe warrants careful consideration before a final decision is made.

Suffolk Energy Action Solutions (SEAS) participated throughout the Development Consent Order (DCO) Examination as an Interested Party and submitted detailed evidence on the Applicant's Need Case, engineering assumptions, alternatives, economics, policy compliance, environmental impacts and cumulative effects. Those submissions now form part of the Examination record, alongside the Examining Authority's Report and Recommendation.

Rather than repeat that evidence, we wish to focus on one issue that, in our view, has implications extending beyond the determination of this individual project.

The Issue
The issue is not whether reinforcement of the electricity transmission network serving East Anglia is needed, nor whether Sea Link would provide network benefit.

The question is whether Sea Link represents value for money. The Applicant has failed to demonstrate during the DCO Examination that Sea Link remains an appropriate,

proportionate and economically justified solution in light of the material changes to the factual basis on which the original project was developed.

During the Examination, credible alternative reinforcement solutions were identified that would deliver the required network outcomes while saving in excess of **£2.5 billion** and reducing environmental impacts.

The Applicant has failed to demonstrate that Sea Link remains a viable and cost-effective solution.

The Need Case Has Materially Changed

The Applicant's original strategic justification was developed using transmission assumptions that had materially changed by the close of the Examination. Most significantly, the relocation of the Nautilus interconnector from Suffolk to Kent altered the assumptions underpinning the original Need Case. This significantly reduced the transmission deficit relied upon to justify a new 2 GW HVDC connection. National Grid Electricity Transmission nevertheless continued to rely on deficit calculations incorporating Nautilus after Ofgem had approved its relocation.

The Applicant did not dispute these facts but failed to undertake an updated comparative assessment to establish whether Sea Link remained the preferred solution under the revised circumstances. Instead, it continued to rely on conclusions drawn from earlier strategic assessments.

Cost of Living

Evidence presented during the Examination identified an alternative reinforcement strategy based principally on upgrading existing transmission corridors. That option is capable of meeting the network requirement at vastly lower cost while avoiding many of the environmental and community impacts of a new HVDC connection.

National Grid's original estimate for Sea Link was prepared in 2019 prices. Once inflation, supply chain pressures and project changes are taken into account, the current cost is likely to exceed **£3 billion**.

By contrast, the alternative identified during the Examination and advanced by SEAS has an indicative cost of less than **£300 million**. While that estimate requires independent verification, it indicates a potential saving in excess of **£2.5 billion**.

The Applicant produced no updated economic assessment comparing these options using current costs and based on the revised transmission assumptions. The result is that a multi-billion-pound infrastructure project is before you based on assumptions that no longer hold good. It simply does not represent an efficient use of consumer resources.

Although the cost does not fall directly on the Exchequer, it will ultimately be borne by electricity consumers through network charges. Consequently, it has wider implications for the Government's objective of reducing the cost of living and risks offsetting the benefit to households of measures such as the removal of VAT from domestic electricity bills.

The Decision Before You

SEAS fully supports the Government's objective of delivering a secure, resilient and decarbonised electricity network. We are not opposing strategic reinforcement. The issue is that this particular scheme is not the best solution or, on the evidence presented during the Examination, the most economically justified solution.

National policy requires infrastructure to be justified, proportionate and an efficient use of consumer resources. That requires the preferred option to be tested against credible alternatives using up to date evidence. That has not happened.

Conclusion

Before determining this application, we invite you to consider one question.

Has the Applicant demonstrated that consumers should fund a project now likely to cost more than £3 billion when the Examination identified credible alternatives that would achieve the same strategic objectives at a likely saving of over £2.5 billion without compromising the achievement of the Government's Net Zero objectives?

Where a credible means has been identified of achieving the Government's objectives while saving in excess of **£2.5 billion**, the public interest requires that it be independently assessed before Development Consent is granted.

We attach a paper that addresses these matters in more detail.

We would be grateful for your consideration of these matters and look forward to your response.

Yours sincerely

[redacted]

Chair
Suffolk Energy Action Solutions.

About Suffolk Energy Action Solutions (SEAS):

Suffolk Energy Action Solutions (SEAS) is an independent, community-led organisation committed to promoting evidence-based assessment of major energy infrastructure projects affecting Suffolk and the wider United Kingdom. SEAS supports the transition to a secure, resilient and low-carbon energy system and recognises the vital role of modern electricity transmission infrastructure in achieving national energy security and Net Zero objectives. The organisation advocates rigorous engineering analysis, transparent decision-making and sound economic appraisal to ensure that major infrastructure investments deliver the greatest long-term benefit for consumers, communities and the environment. Through constructive engagement and independent research, SEAS seeks to contribute positively to informed public debate and better decision-making on nationally significant energy infrastructure.

SUFFOLK ENERGY ACTION SOLUTIONS

Upgrading the electricity transmission network.

Why National Grid Electricity Transmission's proposal for Sea Link, based on NESO projections, is a costly white elephant.

In this paper, we show how the lack of effective separation (and separate rigorous independent analysis) between National Grid Electricity Transmission (NGET) together with its parent company National Grid plc (NG) and the National Electricity Systems Operator (NESO) are compromising the "electricity transmission network upgrade" and delivering exceptionally poor value for money.

This seems to be amplified by ineffective regulatory oversight by the Boards of both Ofgem and NESO.

Sea Link is a project proposed by NGET, a regulated wholly owned subsidiary of NG. Sea Link was originally developed (it is believed over ten years ago) to fix a problem that NGET (part of which became NG ESO in 2019 and later NESO in November 2024) anticipated would occur and that appeared to be supported by the growth in wind farm energy being brought onshore in East Anglia. The problem is that both the current NESO analysis and NGET's Need Case that was formally presented to the Sea Link DCO Examination in March 2025, are based upon fundamentally flawed assumptions and evidence.

During the current DCO Examination it was demonstrated how Sea Link could be replaced by an alternative fully compliant network solution which would be:

(i) much cheaper
(ii) regulatory effective
(iii) quicker to deliver and
(iv) far less damaging to the natural environment.

NGET has persisted with Sea Link, notwithstanding a fundamental change of circumstances since it was originally planned, which now deny it any economic or other benefit.

Sea Link was believed by NGET to be essential to enable the export of up to 2000MW of power from the Sizewell Generation Group in Suffolk to Kent. However, (and critically) on 14th November 2024 Ofgem gave approval for Nautilus, a 1400MW interconnector planned by National Grid Ventures (NGV, a wholly owned subsidiary of NG), to be moved from Suffolk to the Isle of Grain in Kent.

After that change, Sea Link was then only required to support a possible shortfall of export capacity from East Anglia of up to 352MW, which would not materialise until the very late 2030s **at the earliest** and then ***only if*** LionLink, a non-regulated interconnector proposed by NGV is consented. LionLink's principal purpose is the export of energy from the UK based on arbitrage pricing and this proposal is at an early stage and might not even be built in Suffolk or even at all.

Sea Link now amounts to a prohibitively expensive and disruptive overkill which NGET should have abandoned in favour of a cheaper and more effective solution.

The most egregious aspect of the continued support of the Sea Link proposal by NGET is that almost five months **after** Ofgem had approved the relocation of Nautilus from Suffolk to Kent, NGET still formally submitted its written proposals to the Sea Link DCO Examination (APP-320), explicitly stating that the large deficit that necessitated Sea Link, was about 1850MW, and this continued to include Nautilus, rated at 1400MW.

At the Sea Link DCO open floor hearings, NGET's Project Engineer initially insisted, despite challenge, that Nautilus still created a deficit that Sea Link was still required to satisfy, which was manifestly untrue and had, by then, been untrue for many months.

A better and cheaper solution would have been an upgrade of the existing overhead transmission lines in Suffolk and Kent and, where necessary, construction of additional circuits alongside the existing routes, at a cost most probably well below £300 million, based on indicative IET data. This would be a tiny percentage of the likely cost of Sea Link. In Suffolk, this would be 55Km of double circuit between Sizewell and Bramford and in Kent about 29Km between Canterbury North and Kemsley.

The difference in cost cannot be precisely calculated, but on any realistic view it is very significant and well in excess of £2.5 billion. Possibly enough for 3 type 42 Frigates.

NGET has only ever publicly stated that Sea Link cost would be in the order of £1.18bn *in 2019 money*. After adjusting for post-Covid cost escalations, changes in supply chains and as well as materials and construction cost inflation (again supported by recent IET data) coupled with multiple major project changes (to be explicit, these were not included in the original DCO submission from NGET but have been introduced during the Examination), the projected cost (in 2025 money) can reliably be estimated to be more than £3 billion for Sea Link, as compared with less than £300 million for the alternative proposed transmission line upgrades.

An important (but overlooked) benefit of this approach would be that the project could be delivered more cheaply and also more quickly and without the damaging environmental, socio-economic, noise and traffic impacts that Sea Link would unquestionably bring.

This alternative solution (which NGET rejected) would have the very significant advantage of actually providing a complete fix for the recognised NETS-SQSS network problem across the SC2 boundary in Kent, whereas Sea Link would only provide 2,000MW capacity uplift against a need for 6,516MW.

It is important to note that switching to the cheaper and more effective solution will not delay or have any adverse impact at all on the realisation of the government's Net Zero goals.

Detailed submissions have been made in the current DCO planning examination for Sea Link making the points summarised here, in particular by Suffolk Energy Action Solutions and Save Minster Marshes (for the Kent end of Sea Link). They have been met with a constantly shifting case from NGET, which has failed to offer any answer which bears detailed scrutiny compared to the case for a cheaper, quicker and more effective solution.

NGET also seems to have misled the Sea Link DCO by statements that the maximum transmission capacity of 400kv double circuit transmission lines in the UK (allowing for the N-1 fault condition) is 6930MW.

At the current Norwich to Tilbury (N2T) DCO Examination, it was revealed that NGET's stated upper capacity circuit limit of 6930MW per double circuit is not correct, as they had not selected the highest rated conductor available for the existing tower type. This means that their declared circuit limits are self-imposed and there are other options available to increase capacity further, whilst still using the existing pylons.

The N2T DCO Deadline 6 submission (10/6/26) from PylonsEastAnglia.co.uk presented evidence that AECC technology conductors can carry two to three times the capacity of traditional conductors with minimal sag and reduced line losses.

Specifically, Mr Usama Ahmed, Senior Vice President Technology of TS Conductors gave detailed written evidence that this technology has thousands of miles in revenue service across the United States and internationally, with an established track record on both new-build and reconductoring projects. On the basis of this later information, which was not accepted by NGET during the Sea Link DCO, it's clear Sea Link is an even more absurd and unnecessary costly white elephant. If consented by the Secretary of State, Sea Link would demonstrate that value for money is not even a driver to be considered.

However, to be clear the reconductoring proposal suggested here uses NGETs own transmission line capacity limits and still achieves the required outcomes, **without** relying on advanced conductor technologies that are routinely employed elsewhere in the world.

Another example of the erroneous assumptions being used by NGET emerged during the later rounds of their Sea Link DCO submissions, when they claimed their need case relied upon NESO's Clean Power 2030 (CP2030) Report and its recommendations. That Report was published in November 2024, well before the Sea Link DCO started. Specifically, CP2030 referred to Sea Link as being, in NESO's view, one of the critical grid infrastructure improvements urgently required.

On p7 of Annex 2 of CP2030 (https://www.neso.energy/document/346796/download), NESO explicitly state that Sea Link is one of the network upgrade schemes "*that must be supported back to 2030*".

On p8 of Annex 2 of CP 2030, as part of its justification for this assertion NESO stated:

Sea Link:

(i) "facilitates transfer of clean power through and out of East Anglia"
(ii) "is required for connection of Five Estuaries OWF and firm connection of Rampion Extension"

However, neither of those assertions was correct at the time of the Sea Link DCO Examination, nor are they now.

Both the NESO CP 2030 quoted offshore wind farms (Five Estuaries and Rampion Extension) have been Consented by the current Secretary of State, without any stated need for Sea Link to support them, nor is it required to support them in any way.

It's clear both NESO and NGET continue to rely upon out of date assumptions and data in presenting their analysis and prescription for a solution. Why has this nonsense of NGET's case for Sea Link been allowed to persist in the face of clear evidence supporting a solution that is cheaper, quicker and much less damaging environmental and socio-economic solution?

The Sea Link DCO has been shown that with a relatively low cost and quick upgrade of the existing OHLs in Suffolk, there is more than sufficient capacity to move all the anticipated clean power through and out of East Anglia until way beyond 2040.

Another question that might be considered is what advantage is there to NGET persisting with a grossly uneconomic solution that doesn't have a "Need". It clearly cannot have any connection with the basis upon which NGET (and thus NG) is remunerated based on its "regulated asset base"?

There is no sound case for Sea Link. It's a vastly expensive and unnecessary solution in search of a problem, that will not even occur until after 2040, and then **only** if an optional arbitrage-driven interconnector being planned by NGV (non-regulated) is consented to also be connected in Suffolk. Effectively, UK billpayers are being asked to support (ie fund) a solution to support a profit-making interconnector being developed by another NG subsidiary.

Sea Link is an unsound project that cannot withstand serious scrutiny. This a perfect case study for the NAO to investigate whether NGET and NESO have regard to seeking Value for Money in the upgrade of the electricity transmission network

Our clear and simple recommendations are:

1. Recommend pausing Sea Link as it is currently proposed.

2. Require NESO and NGET to determine the best alternative solution based on upgraded conductors on existing pylons, plus a new circuit in Kent to resolve the SC2 boundary deficit issue.

3. Obtain accurate cost estimates for that proposal and compare them with NGET's internal forecasts of the cost of their current Sea Link plan in 2025/26 costs.

4. Require the appointment of ***truly independent consultants*** to oversee this process, ensuring transparency and value for money throughout. They should report their findings to NESO, Ofgem and DESNZ and, ultimately, to the House of Commons Energy Security and Net Zero Committee. The NAO should then review those findings and publish its conclusions.

Delivering such transparency will help reduce the enormous resistance within England's and Wales rural communities to NGET, as they currently don't feel there is any meaningful consultation, open-mindedness or engagement with them.

Such an open and transparent review could hasten the grid upgrade, not delay it.

July 2026

About the author:

[redacted] studied [redacted] in the late 1960s, followed by post-graduate degrees in [redacted] and then [redacted] (Elliot Memorial Finance Prize 1975). His career of 45 plus years spanned: [redacted] for nine years. [redacted] joined Suffolk Energy Action Solutions (SEAS) in 2024.

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