## Summary


- Ever since National Grid first came forward with the 'East Anglia Green/Norwich-Tilbury' proposal, the company has made not even the slightest attempt to look seriously at any alternative to pylons through the countryside of South Suffolk, and other East Anglian constituencies.
- When the consultation began, attending 'engagement' sessions at village halls, it was clear from National Grid's (NG) approach that they hadn't at any point looked in detail at other options, and had no intention to – dismissing the very feasibility of options such as offshore, when suggested by constituents, even though the United Kingdom is surrounded by vital offshore interconnectors carrying electricity within our nation, and internationally.
- As it became apparent through engagement between OffSET MPs and NG, and as set out in detail by me and my Parliamentary colleagues in the House of Commons (e.g., Westminster Hall debate on New Pylons in East Anglia, 19th July 2022), NG's refusal to even consider alternatives to pylons was <u>not based on any detailed, objective assessment of alternatives.</u>
- Finally, recognising the need for transparency, ESO agreed to conduct such a review of alternative options and assessed those alternatives in their East Anglia Network Study, with the results published in March 2024.
- In total, 10 options were assessed and range from the current pylon proposal to a network configuration involving no new overhead lines within East Anglia.
- Whilst a fully offshore option was found to require a large level of capital investment, it is striking that even these more 'expensive' options were not as costly as the various options being taken forth offshore elsewhere in the UK.
- Most importantly, ESO found that undergrounded HVDC (U-DC) is cost comparable to pylons, assuming a 2034 baseline – indeed, potentially cheaper, given the greater efficiency of this option and therefore the significantly lower 'constraint payments' involved. I would stress that these findings were retested repeatedly by ESO's senior engineers and found to be fully justified.
- ESO also found the underground HVDC proposal to be technically feasible in the timescales that the capacity is needed.
- Taking a national perspective, the scale of subsea cabling agreed and proposed is now 20:1 in favour of Scotland/North of England compared to East Anglia. People in our region pay the bills that fund infrastructure deliberately brought forward to alleviate rural impact elsewhere in the UK – yet repeatedly we are told that such an approach cannot even be considered in the East, let along delivered.
- The majority of my affected constituents prefer an offshore or underground alternative to proposed pylons, as is self-evident from their many responses to the consultation.
- It is now extremely overdue for National Grid to explain to my constituents why they have been treated as second class citizens – not entitled, for some reason, to even have other options considered by NG, when the same company is spending billions on such solutions elsewhere in the UK.
- Significantly, in Germany the U-DC option is the legal default.
- With new facts on the table, the last Government confirmed – at the final Adjournment debate before dissolution – that it would urgently review the 'pylon presumption', in light of new facts showing the comparable cost competitiveness of U-DC.

- I currently have a huge water pipe, similar in scale to a U-DC cabling project, being built through my constituency – it's disruptive, but I've never had a single complaint because constituents know the rural impact will be 'made good'.
- It is clear to me that U-DC will be far more welcome in rural communities. Given its cost competitiveness, I would urge NG and the Government to continue the last Government's pledge to urgently review the pylon presumption, since it may be that with a national approach to U-DC like Germany, we could both save money for billpayers and deliver infrastructure more quickly, through far less local opposition.
- To conclude, those who oppose pylons are constantly portrayed as 'NIMBYs' – and yet, this dismissive position rests on an assumption of cost competitiveness that now goes against the most recent detailed findings. There is NO data to show the cost competitiveness of a national U-DC approach, which is why the last Government wanted to urgently review its presumptions. I urge NG and the Government to work swiftly to determine if a U-DC circuit for Norwich-Tilbury might not only be cheaper over its lifetime, but act as a model for a wider UK commitment that would be:
  - Cost effective for bill payers
  - Faster to deliver, due to less political and legal opposition
  - Fairer to affected rural communities, with far lower long-term impact on the countryside.

If the answer to all of the above is to 'continue with pylons regardless', I would be grateful to finally receive a detailed explanation as to why billions can be spent mitigating harm to the countryside in the north and Scotland, but not in East Anglia.

**Full response to National Grid:**
I am responding to your Norwich to Tilbury statutory consultation as the MP for South Suffolk, representing constituents affected by your proposals for pylons, overhead lines, and underground cabling through Babergh (Section C in your documentation).

In summary, it is clear from correspondence and the public meetings that I have held throughout this process that the overwhelming majority of my constituents prefer either an offshore or underground HVDC solution, as opposed to your proposals for pylons across open countryside.

As you will know, my main priority is to achieve a fair deal for my constituents in East Anglia, we are bill payers too and are in part funding the significant infrastructure being pursued in Scotland and the north of England, to the benefit of their residents. Crucially, by National Grid's own admission, this infrastructure is primarily going offshore to "significantly reduce its impact on communities".

**From:** SEGL1 <info@segl1.nationalgrid.com>
**Sent:** 26 May 2022 3:39 PM
**To:** [redacted]
**Subject:** Re: [EXTERNAL] SEGL1.

Hi [redacted]

This is a good question.

Routing the cable overground for hundreds of miles would likely require overhead lines that would cause disruption and visual impacts to many communities, ranging from County Durham to southern Scotland, where the route originates. By routing the cable under the North Sea, away from settlements, we significantly reduce its impact on communities.

I hope that the above is helpful but do let me know if you have any further questions.

Thanks,
The SEGL1 Community Relations Team

All we want is to be afforded the same protections in East Anglia.

**Underground HVDC (U-DC):**

I have consistently campaigned for more choice on electrical transmission infrastructure, insisting that alternatives should be assessed and consulted upon alongside your proposals, to enable my constituents to make an informed decision on **all** of the options.

Following months of requests for an independent review of alternatives, this assessment was finally provided by the ESO in their East Anglia Network Study. Whilst I recognise that a fully offshore alternative required – on paper – a greater level of capital investment than pylons (though comparing favourably to offshore options that NG are proceeding with elsewhere in the UK), ESO did present an option that could be delivered at a comparative cost to proposed pylons – an onshore undergrounded HVDC route (U-DC).

When compared to all of the other options assessed, and assuming a 2034 baseline, the ESO found it to be the lowest cost option in the delay situation.

The ESO study concludes: *"When combined with overall system impact, the onshore option ranks highest as it is deliverable earlier (in 2030), however if a later delivery of 2034 is assumed then the undergrounded HVDC option as well as hybrid onshore and offshore options are comparable in ranking"*.

Given the above, some may say that pylons could be delivered quicker, but it must be evident from the level of opposition that pylons would receive far more legal challenge, therefore also resulting in delay. In addition, ESO concluded that the underground onshore HVDC proposal is 'technically feasible in the timescales that the capacity is needed'.

With an option at hand, backed by the most credible evidence, which means we can deliver our electricity transmission needs affordably and efficiently - yet without new pylons - I believe we should seize this way forward.

Whilst of course I accept that undergrounding still has short-term impact, with a single U-DC network for East Anglia (converting in the industrial hinterland of its primary demand hub, i.e., London), there isn't the need to have such wide trenches as the more expensive AC undergrounding, and there would be far less impact than partial undergrounding between pylons. It also doesn't involve the permanent scarring of our countryside, which I feel is so important to mitigate.

**Offshore:**

In my previous response to your non-statutory consultation in June 2022, then known as East Anglia GREEN, I made the point that the scale of undersea cabling already agreed is 10:1 in favour of Scotland/North of England. This was before the proposals for EGL3 and EGL4 were brought forward, totalling an estimated 1050km of subsea cable for the two new links. This now takes the scale of undersea cabling from 10:1 to almost 20:1 in favour of Scotland/Northern England, despite the huge importance of East Anglia's offshore wind farms, and the great and growing impact of densely concentrated onshore infrastructure.

**Cost comparisons:**

Another development since the first round of consultation are the updated costs for the Eastern Links. The Eastern HVDC project was previously estimated to be £3.4 billion for both links. Ofgem has since announced, in March 2024, the funding packages of £2 billion and £3.4 billion for EGL1 and EGL2 respectively, which is in addition to the proposals for EGL3 and EGL4 with an estimated capital cost of £4.8 billion for both links.

Taken together, with the already complete Western Link at £1.2 billion, totals £11.4 billion for electricity transmission infrastructure off Scotland/Northern England - primarily to protect nearby communities from the impact of new pylons or overhead lines but, crucially, funded in part by East Anglian bill payers.

If East Anglia were allocated the same financial commitment, we could deliver multiple iterations of Sea Link, in addition to underground HVDC, ensuring more than the 6GW an overland pylon run will provide.

**Offshore grid:**

If East Anglia were to have its 'fair share' of offshore infrastructure investment, not undermining offshore cabling elsewhere, but bringing our commitments up to the scale seen in Scotland/northern England - we could then use Norwich to Tilbury as a positive opportunity to genuinely drive forward a piece of infrastructure that is in our strategic energy and overall national interest - an offshore grid.

**Conclusion:**

I believe the undergrounded HVDC route is good for the Dedham Vale, and South Suffolk; it is affordable; and I believe it would be far less damaging to our countryside in the long term, supporting our rural way of life – including our crucial tourism and agricultural businesses. With a delivery date of 2034, this option could be cheaper for bill payers, and could be used as a trailblazer approach for U-DC elsewhere in the UK, given that opposition to pylons is very broad across the nation. Fundamentally, I support the huge surge in offshore wind that East Anglia has contributed – strengthening our energy security – and recognise the need for grid reinforcement, which is why (with detailed exceptions) I have by and large accepted the need for Bramford-Twinstead as a reinforcement of an existing pylon run. Nevertheless, as a region, we deserve the same recognition of the need to balance this new energy against mitigation of infrastructure impact, and with an option on the table that could be cheaper and less controversial to communities, I would be grateful for urgent and robust consideration of these alternatives. In short, it's time to respect the views of people in South Suffolk and the East, and properly consider the alternatives to pylons.