

Deadline 2 Submission from Pylons East Anglia Ltd.

1. Introduction

1.1. We remain deeply concerned about the great many errors, omissions and misunderstandings in the Applicant's DCO submission. We set out our concerns as follows:

1.1.1. Our response to the Applicant's comments on Open Floor Hearings 8.4.1.

1.1.2. Our response to the Applicant's comments on Deadline A submissions 8.4.6

1.1.3. Our comments on the Funding Statement's updates

1.1.4. Our topic specific responses and appendices:

- Appendix A - Norfolk Rivers Trust evidence of White Clawed Crayfish in the River Tas
- Appendix B - Acid Sulphate Soils – response to the Applicant's comments by Dr David Dent.
- Appendix C - Transcript of TED talk called The High-Wire Act of Unlocking Clean Energy | Jason Huang
- Appendix D - Email to Natural England expressing concern about advice given to the Applicant.
- Appendix E - Bird Collision Matrix
- Appendix F - Environment & Biodiversity comments – separate attachment
- Appendix G - Treasury Green Book – separate attachment
- Appendix H - North Essex Authorities Local Plan Examination Report 2020 – separate attachment
- Appendix I – Bat activity – separate attachment
- Appendix J – Flood risk / Drainage Strategy Review
- Appendix K – Historic Environment

We reserve the right to comment in further detail on the revised Response to Relevant Representations and will submit a legal opinion from Lord Charles Banner KC upon sight of the Applicant's revisions, before 10th April.

2. Our response to the Applicant's Comments on Open Floor Hearings 8.4.1.

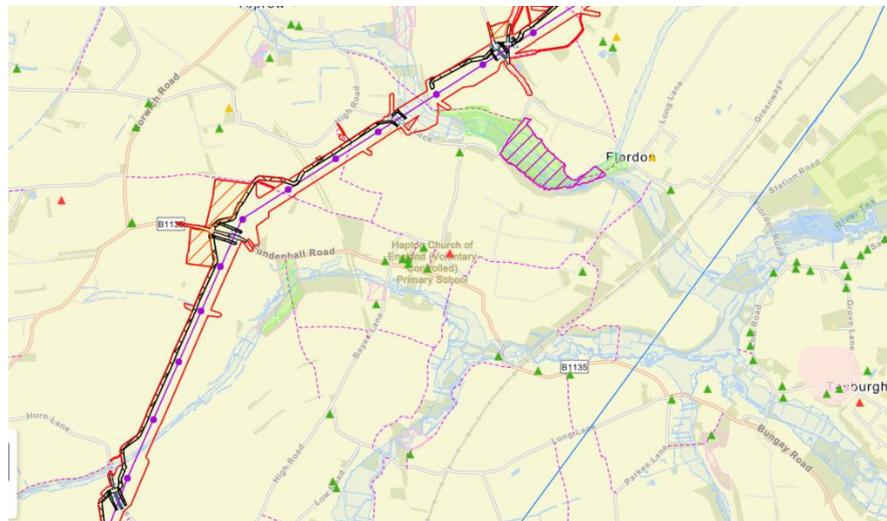
2.1. A summary of themes is wholly inadequate when addressing very specific and localized points raised by residents and stakeholders. It results in serious omissions, such as the risk to White Clawed Crayfish.

2.2. Some of the omissions and areas of disagreement with the Applicant are highlighted below.

2.2.1. White Clawed Crayfish.

2.2.1.1. The Applicant has made no mention in its comments of the colony of endangered White Clawed Crayfish in the River Tas, downstream of the project and at risk from construction pollution. We repeat again that there IS a colony of White Clawed Crayfish in the River Tas which the Applicant was unaware of even though it is known of by Norfolk Rivers Trust, which specifically seeks care by developers (see Appendix A). White Clawed Crayfish are highly vulnerable to pollution and development.

2.2.1.2. The Norwich to Tilbury project crosses several tributaries of the River Tas, such as the two shown below, and the risk of pollution downstream, from construction is severe:



2.2.1.3.

2.2.2. **Security** at Bramford. Security & resilience of electricity infrastructure' is listed as a summary of issue raised, has been only partially summarised and should also say, 'specifically, the continuity of the Bramford Substation in the event of worst-case scenarios'. The response only mentions the resilience of overhead lines, which was not even raised.

2.2.3. **Roydon Parish Council**, South Norfolk, notes that based their open forum verbal submission around the ignoring of the Holford rules in relation to the pylon route around the village on three sides, the Applicant says on page 4 that they did consider the Holford rules when setting out the pylon route. However, the point was that they might have considered those rules but chose to ignore them in the case of Roydon. Consideration of rules is not the same as applying them.

- 2.2.4. **Aldham**, Essex. The Inspectors have received a submission which includes the statement, “The response largely relies on generalised statements regarding efficiency and cost while failing to engage with the site-specific landscape, heritage and environmental concerns raised during the hearing.”
- 2.2.5. **BMV farmland**. The point was raised that the Applicant should have considered the lower quality land when choosing the route, and that this was not done. This has not been addressed.
- 2.2.6. **Pacemakers**. One resident informs us that her concerns about pacemakers remain unaddressed, as do her emails on the subject.
- 2.2.7. **Acid Sulphate Soils**. Addressed in Appendix B.
- 2.2.8. **Bat surveys**. We remain concerned that the applicant has not heeded warnings about the risks of relying exclusively on a tool called Kaleidoscope.
- 2.2.8.1. For the high-level steps agreed, the devil is in the detail, and the implementation could vary from good to execrable. F
- 2.2.8.2. For example, the selection of static detector locations appears to be at the discretion of the applicant's environmental consultants.
- 2.2.8.3. One resident has told us that he has previously told the applicant that he has recorded bats within the proposed DCO boundary, that information could have augmented the survey but that he had no response.
- 2.2.8.4. The biggest issue with the exercise is that all the results and analysis are predicated on species identification by a software tool called Kaleidoscope.
- 2.2.8.5. **This is a standard tool for use in initial species identification but the developers set out very clear warnings on exclusive reliance on its results and that it is not a substitute for fieldwork.** In particular they caution that its results should not be relied upon for land management decisions, which is exactly what the Applicant is doing.
- 2.2.8.6. On the limitations of Kaleidoscope, the software works by pattern matching recordings to a pre-defined library of calls for species. This library is by no means complete and consists solely of sample hunting calls.
- 2.2.8.7. Several species of bat also make mating and social calls which can be at completely different frequency ranges and patterns from their hunting calls. Kaleidoscope will either ignore these calls completely or misidentify them as a wrong species. There is nothing in the environmental report that indicates any quantification of these potential errors in the dataset out.

2.2.8.8. Natural England should be concerned about establishing a precedent for the misuse of software tools in support of planning applications.

2.2.8.9. See comments about Bat Activity Surveys in Appendix I (separate attachment).

2.2.9. **Treasury Green Book.** We remain in disagreement with the Applicant and we also note that they have not challenged the analysis or the conclusions drawn in our report, "Norwich to Tilbury Project Green Book Analysis". We set out in Appendix G, submitted separately, our comments on the Applicant's statements in 8.4.1.

2.2.10. **Historic Environment.** See our continuing concerns in Appendix K, further to document 8.4.1.

3. Our comments on Document 8.4.6, Applicant's comments on submissions received at Procedural Deadline A

3.1. For this project, the Applicant places overly heavy reliance on the presumption in favour of overhead lines. Yet when the Applicant chooses to, in the case of other projects (Sea Link and Eastern Green Link 3 and 4) they ignore this presumption and choose to prefer HVDC subsea/underground over the OHL options they also appraise.

3.2. **Bradwell.** As stated in our Deadline 1 submissions, NG continues to misrepresent our position. We seek to see Bradwell as a landing point, and for the disused 132kv overhead lines to be removed and cable to continue underground (HVDC) along the 132kv route. The pylons are due to be removed soon anyway.

3.3. We have never asked for HVDC undergrounding only in the Dedham Vale. That misrepresents our position. We are fully aware that HVDC for short distances is impractical and that HVDC is a long-distance solution well suited to the entire route from Norwich to Tilbury, ideally without a break.

3.4. Advanced, high-capacity conductors.

3.4.1. We understand the current restrictions in substations, but the Applicant has never explained what upgrades would be required to substations should a technology such as TS Conductor be used and what the costs of those upgrades would be compared with building an entirely new 400kv AC line for 180km.

3.4.2. When it comes to TS Conductors, they are not simply deployed, as the Applicant states, "on pylon designs that are not capable of carrying the normal conductor bundles". They can be installed in their own right to upgrade a grid OR to provide new

overhead lines on lower and fewer pylons at a much lower cost than the 50m lattice pylons proposed.

3.4.3. The Inspectorate does not allow web links but the panel should watch the excellent 11-minute TED talk called [The High-Wire Act of Unlocking Clean Energy | Jason Huang](#) | available on YouTube. Jason Huang is the founder of TS Conductor. We include the transcript in Appendix C.

3.4.4. Note that Bute Energy, in Wales, is choosing to deploy a technology not dissimilar to TS Conductors, not because there is a problem with pylon designs such that old school conductors are required but because they transmit more electricity: "The ACCC (aluminium conductor composition core) Cardiff is also crucially designed to provide higher capacity and reliable long-term performance. Green GEN Cymru will deploy the variant on L7c pylons. At a standard 27m tall and 5m wide, these pylons are half the size of typical 400 kV towers." Why has National Grid not considered solutions such as these that would significantly reduce the overall harm in East Anglia should overhead lines be built?

3.5. Supply issues. NG continues to maintain it cannot get hold of HVDC cables but (as stated in our Deadline 1 submission), the entire transmission market is constrained, not just HVDC, and NG has access to one third of the world's HVDC cables, with its suppliers ramping up output. NG makes the following, unsubstantiated, claim, "The Project will operate at three times the capacity of the best available technology and therefore would require three times the capacity in the market of a typical HVDC project."

3.5.1. **However**, Eastern Green Link 3 is 2GW and is 580km long; Eastern Green Link 4 is 2GW and is 530km long; Sea Link is 2GW and 130k. (In all cases, overhead lines were REJECTED). So National Grid can find enough cable for a total of 1140km of HVDC cable for these projects but not 540km of HVDC cable for Norwich to Tilbury (if delivered at 6GW, not 4GW, which is understood to be the actual capacity requirement unless North Falls/Five Estuaries/North Falls are landed away from North Essex). We arrive at a figure of 540km because to achieve 6GW will require three circuits at 2GW each. This is not to do to with 'best available technology'. It simply needs more cables.

3.6. Impact on farmland

3.6.1. The Applicant's claim that it has sought to minimise impacts on BMV agricultural land holds no water. All of the following options would reduce the impact on agricultural land significantly:

3.6.1.1. The connection of the Five Estuaries/North Falls & Tarchon at a brownfield site closer to London/demand, instead of at ALBA, where the land is predominantly Grade 1 and which would avoid the loss of 125 hectares of land cumulatively.

3.6.1.2. A choice of route which did not deviate by 12.2km to and from ALBA.

3.6.1.3. A route which did not cross a National Landscape, where the AC undergrounding destroys farmland with a swathe of construction 200m+ wide

3.6.1.4. An offshore option

3.6.1.5. HVDC undergrounding, which requires a narrower construction swathe than for OHL and by a huge margin than for AC undergrounding

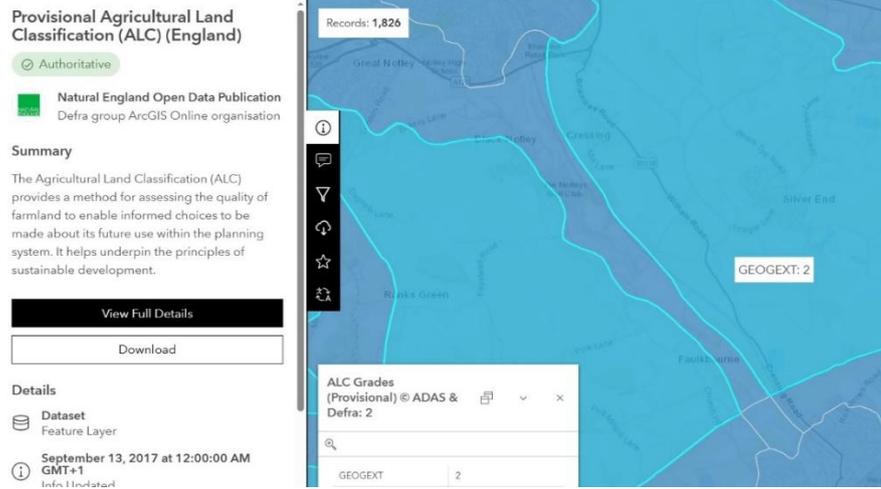
3.6.1.6. Cable ploughing for installation of underground cables, as the disruption is significantly reduced versus open trenching.

3.6.2. We note that the Applicant acknowledges that the loss of best arable land is contrary to the NPPF. We do not agree that the significant benefits arising from this CNP Infrastructure justify the permanent loss of 172.7 hectares of BMV agricultural land and the temporary loss of many hundreds more.

3.6.2.1. As a further point we note that one farmer has pointed out that his land has been downgraded by the Applicant to Grade 3 land when it is Grade 2. See below for National Grid's map showing G3 and Natural England's map showing G2:



3.6.2.2.



3.6.2.3.

3.7. Acid Sulphate Soils. Our response to the Applicant's comments on acid sulphate soils - See Appendix B by Dr David Dent.

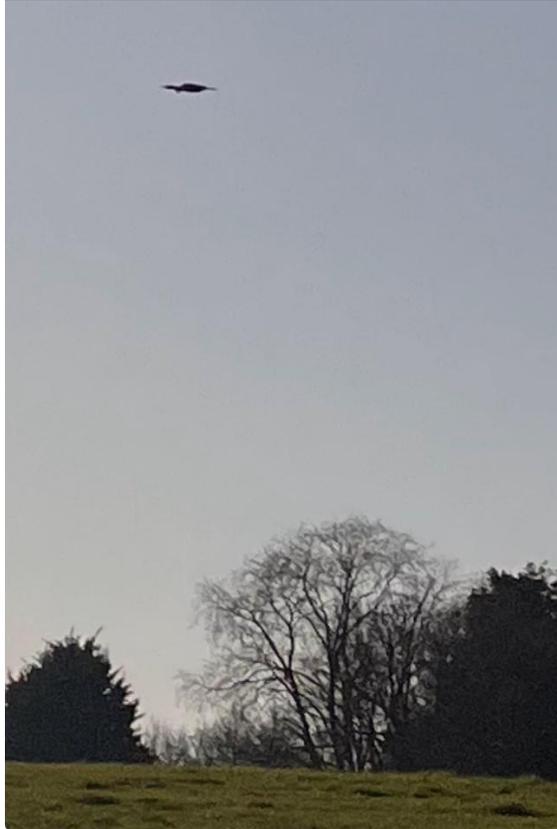
3.8. Flood risk and drainage. See our detailed response to the Applicant's comments in Appendix J (separate attachment)

3.9. Bird strikes.

- 3.9.1. We remain *extremely concerned* about the methodology chosen and the conclusions drawn, namely that “Outside of these key movement corridors the Order Limit is made up of predominantly farmland and would therefore support farmland passerines.”
- 3.9.2. From the detailed evidence that we have submitted at all stages of consultation and again at Registration for the DCO and again at Deadline 1, it is clear that there is not only a risk to farmland passerines but that the farmland areas on the route contain very high numbers of non-passerines at risk. The applicant is refusing to acknowledge evidence that demonstrates that its approach is negligent.
- 3.9.3. We draw the panel’s attention particularly to our submission EN020027-000797 which sets out our arguments which are still unaddressed.
- 3.9.4. We refer below to submission document “6.6.A8 *Environmental Statement Appendix 6.6 - Wintering and Passage Bird Report - Part 1, Final Issue A, August 2025. Planning Inspectorate Reference: EN020027*” and we believe that Natural England has erred in its approach.
- 3.9.5. We tried and were unsuccessful in contacting Natural England in the autumn and have tried again now, with the email text included in Appendix E.
- 3.9.6. We attach a Bird Collision Matrix in Appendix F which gives a very clear picture of the bird species at risk along the route.
- 3.9.7. We would very much like the opportunity to discuss this at a Hearing.
- 3.9.8. Alternatives such as undergrounding or subsea cables would avoid the very high risk to birds of all types in farmland areas (as set out in our submissions) from collisions with power lines.
- 3.9.9. National Grid and Natural England are in breach of Electricity Act 1989. The Electricity Act 1989 places duties on National Grid. These include:
- 3.9.9.1. *Schedule 9 preservation of ecological resources*
 - 3.9.9.2. *Section 38 and Schedule 9 – duty to have regard to the desirability of ... conserving flora, fauna and geological or geophysical features of special interest.*
 - 3.9.9.3. *Shall do what he reasonably can to mitigate any effect on ...any such fauna...*
- 3.9.10. National Grid, by proposing overhead lines and no other options, when it is aware that there are other deliverable and cheaper options that are better for the environment (specifically an offshore grid as set out by National Grid ESO in 2020²), is negligent in relation to the Electricity Act.

3.9.11. It is an all too common, and awful, problem as set out in our submissions to the Applicant and to the Inspectorate, and highlighted again in the Bird Collision Matrix in Appendix E. It is a risk that we should not be inflicting on birds.

3.9.12. Even this week a cormorant was spotted far inland near Fordham Essex, and this is not a passerine...! Quality of photos is poor but it makes the point:



3.9.13.

4. Funding Statement EN020027-001950.

- 4.1. Why is the overall cost base for 2025/26 but the compensation for 2024/25?
- 4.2. A 10% contingency remains woefully inadequate for a complex infrastructure project of this type and size. Previous TGB guidelines recommended c40% (as borne out in the Inspector's letter for the North Essex Authorities Local Plan Examination, 2020 – submitted as Appendix H). At a minimum we need to see reference class forecasting based on an analysis of high voltage transmission projects and compared with our preferred alternative of HVDC cables laid underground by cable plough.
- 4.3. The funding statement cannot be considered suitable evidence for examination of the project - it contains no breakdown of costs for appraisal.

Appendix A- Norfolk Rivers Trust, Crayfish, River Tas

From the Norfolk Rivers Trust website about Crayfish

Norfolk Crayfish Group plea

Norfolk is one of the few remaining strongholds for our largest aquatic invertebrate, the white-clawed crayfish. Forming a major part of the food chain and vital for a healthy functioning ecosystem, this creature was once widespread through our rivers. Sadly, pollution and invasive non-native signal crayfish have almost entirely wiped out this native species.

In recent times, surveys have revealed that the River Tas is one of a few rivers that are still home to the white-clawed crayfish. Although this is hugely encouraging, these native crayfish remain highly vulnerable. Therefore, it is vital that special care is taken to ensure that water quality is maintained for the survival of this remaining population.

Farming: We are asking all landowners, farmers, developers and residents to take extra care around the Tas, including its tributaries and ditches. White-clawed crayfish are very sensitive to pesticides, in particular, flea and tick treatments from dogs, horses, cows and sheep. Therefore, keeping livestock and dogs out of the watercourse is crucial. Furthermore, surface run-off from fields and farm gateways containing sediment and pollutants (such as pesticides and phosphate) can also result in the rapid extermination of a crayfish population.

Appendix B- Acid sulphate soils.

Pylons East Anglia Ltd Deadline 2 response to the Applicant.

The response from NG may be split into the following paragraphs, numbered here 1-3 by us. The Applicant's position is shown underlined, and Dr Dent's response follows.

Applicant: "1.As stated in **6.6.A1 Environmental Statement Appendix 6.1 - Agricultural Land Classification Report [APP-139]**, the detailed Agricultural Land Classification (ALC) surveys were undertaken in line with the revised ALC guidelines by competent soil scientists with the competencies as set out by the British Society of Soil Science."

Dr Dent's response: National Grid have taken us around the houses again

The Agricultural Land Classification is irrelevant to the issues in hand: that is to say engineering, ecology, and even agricultural product, so class 3 land can yield as much wheat and barley as class 1 land, although it may be unsuitable for celery.

It is probably unnecessary to go over the issue of competency but since they mention the British Society of Soil Science, we might point out that one of us has been a member of the British Society of Soil Science for 60 years, a former Director of the international World Soil Information and, more to the point, still in the forefront of environmental science with ten peer-reviewed articles in seven different front-line journals in the last two years as well as editing special issues of *International Journal of Environmental Studies*, *Water International*, and *Agriculture for Development*. He is the author of the definitive text: *Acid sulphate soils. A baseline for research and development* published in 1986 by the International Institute for Land Reclamation and Improvement in Wageningen and remains an active member of the International Society of Soil Science working group on the topic.

Applicant: "2. The detailed ALC surveys did not identify the presence of jarosite in the soil, and in locations where desk-based information suggested a potential for acid sulphate soils, some of the soils were found to be moderately calcareous. There is no evidence to indicate the presence of actual or potential acid sulphate soils within the surveyed areas. Should any evidence of acid sulphate soils arise during construction, appropriate investigation and mitigation measures would be implemented in accordance with best practice."

Dr Dent: One critical issue is that the conspicuous, straw-yellow mineral jarosite is definitive only for actual, active acid sulphate soils that have already been drained so that the dangerous iron pyrite and/or monosulphide has already generated its potential acidity. The issue at present is *potential acid sulphate soils* that have not yet been disturbed. They do not exhibit jarosite. They will generate

sulphuric acid and oxygen-hungry iron (II)and, subsequently exhibit jarosite, only when they are disturbed.

There are two simple tests for potential acid sulphate soils: soil samples may be incubated for a month or so under oxygenated conditions or treated with hydrogen peroxide which produces an immediate reaction. In either case, the sample will become severely acid, the usual cutoff being taken as pH 3.5.

Why cannot National Grid do these tests, and ***tell us where and how many they have done, and show us the actual results?*** Would they like us to do the necessary survey for them?

Applicant: "3. Organic-rich peaty soils were identified in the Waveney Valley during the ALC survey and a further, more detailed, survey was undertaken in the area to identify more information on these soils. 7.2 Outline Code of Construction Practice Appendix C - Outline Soil Resource Plan [AP-303] details measures handling organic-rich soils during construction to prevent for any disturbance leading to its degradation with consequential environmental effects. These surveys (both ALC surveys and detailed peat surveys) have been undertaken in accordance with published guidelines and were designed to provide sufficient coverage of the soil characteristics as required to inform the impact assessment."

Dr Dent's response: There is a further issue with their desk studies. Acid sulphate soils were unknown to the Soil Survey of England and Wales until Dr Dent's 1979-82 surveys for the Broads Authority. They do not feature in any earlier compilations. The definitive Soil Map England and Wales was compiled between April 1979 and March 1982 and, to our knowledge, acid sulphate soils were a last-minute addition only to mapping in the Waveney valley and the Fens.

Appendix C - Jason Huang, TED talk transcript, TS Conductor

“One of the greatest inventions of all time is our transmission and distribution grid. It connects electricity generation to electricity consumption, safely, reliably resilient against extreme weather conditions, and keeps our lights on. But if we were to facilitate the electrification of everything, this most sophisticated and largest machine on Earth is not quite large enough to take on all the renewable generation from where the Sun shines and the wind blows to where people actually live. It does not have the capacity to handle the two-thirds energy that we consume not yet in the form of electricity. Without transmission, we have no transition.

The real bottleneck in our power grid is actually the conductors. Those wires that are carrying electrons are based on outdated technology invented in 1908. It has limited capacity and also poor efficiency. The next generation of advanced conductors exists. It has been invented leveraging the best materials science today has to offer, to build the best conductors. This is what the company I cofounded, TS Conductor, is working on. It can triple line capacity, and, at the same time, reduce line loss by 50 percent. The best part is it comes with a green discount, saving the utility and their customers money from day one.

There aren't many things in our lives that are over 100 years old. So why are we still using and relying on those old-fashioned power lines? This is because our utility companies are regulated monopolies with a very conservative culture.

To understand today's advanced conductors, let's take a look at yesterday's wires. The original century-old technology, the ACSR conductor, which is still dominant today in our power grid, has steel wire as a core for structural support and layers of aluminum for electrical conductivity. The steel wire at the time, 100 years ago, wasn't strong enough, so we had to use hard aluminum for strength contribution. The problem is hard aluminum cannot handle high temperature. This limits capacity.

In the 1970s, our steel industry was able to deliver stronger steel, which then can be combined with annealed aluminum. That forms the ACSS conductor, which is capable of high-temperature operation for high ampacity. The problem is steel expands when hot. This causes excessive sagging. You probably have noticed that our power lines droop on a hot summer day, and that is why. This sag caused its own set of challenges.

In the 1990s, advanced conductors emerged. Instead of the steel core in the traditional conductors, composite materials with lower thermal expansion, such as a ceramic fiber composite or a glass carbon fiber composite, are used to replace steel and reduce sag. Unfortunately, our utility industry experience with this group of first-generation advanced conductors hasn't been positive. They are

known to be delicate, difficult to work with, easy to break, with longevity concerns, and they are also very expensive, used for niche applications at best.

By 2016, TS technology was developed and commercially deployed. We solved all the problems associated with the first-generation advanced conductors, at source. We designed in safety, reliability, longevity, easy installation and maintenance from the start, by leveraging effective protection for the pre-tensioned carbon core with a continuous, seamless, thick aluminum sleeve that is also fully conductive. This technology shifted three conductor paradigms. We can run this conductor at high temperatures for very high ampacity, without the conductor sagging problem, because the carbon core has virtually no thermal expansion. We also maximized the aluminum content in the conductor for optimal ampacity without the weight penalty in the conductor. This is because the carbon composite core was able to eliminate 80 percent of the weight of steel. And we can also incorporate the annealed aluminum for best conductivity in the conductor without compromising on conductor strength, because the carbon core is twice the strength of steel. Furthermore, this solution is also corrosion-proof.

The heat-tolerant, sag-proof feature in this solution makes it much better in terms of surviving wildfires compared to traditional conductors. The strong and compact design also makes it more resilient against extreme wind or ice storms due to climate change. Doing this, we can triple the line capacity with the same structures in the power-line corridors. At the same time, we can reduce line loss by 50 percent, while essentially eliminating thermal sag. And the best part is this technology comes with a green discount, in addition to the green dividend that's associated with line-loss reduction. This saves the grid operators and their customers money from day one, even though this advanced conductor has a modest premium compared to traditional conductors.

Here's how. When you build new transmission lines, the cost of conductors in the overall project is very minor, about a few percentage points, but the cost associated with structure can be as much as 30 percent. With the strong, less-sag TS conductor, you can build these new lines with fewer and shorter structures, creating substantial CapEx savings that more than offset the modest premium associated with conductors. There are numerous new transmission lines deploying TS technology that can prove this point.

In reconductoring, we replace the wire but reuse the towers. There's even better economics in that situation. We can triple the line capacity without retrofitting any structures for the lowest project cost. If you were to use traditional conductors for reconductoring, the required upgrade to the structure can be substantial.

Let me give you a real-world example. In March 2021, we reconductored an 11-mile, 230-kV transmission line in North Dakota. The utility needed to increase line capacity to accommodate wind farms in the area. Traditional conductors, ACSS, were initially used, which required an expensive and time-consuming structural retrofit to 90 percent of the structures because of excessive sagging. When they later switched to the TS solution, they were able to save 40 percent in total project CapEx, because we avoided all the structural retrofit. The project was completed 12 months ahead of schedule, with 1.8 million dollars' CapEx savings.

Let's imagine what is possible if we thus upgraded our power grid and its capacity around the world. We could connect the renewable generation instantly, versus the years-long wait that we're experiencing today. No more bottlenecks holding back wind or solar projects. We can electrify everything and meet the growing power demand for electric vehicles, heat pumps, industrial processes and data centers, without grid reliability or transmission congestion constraints. And here's a big one: we can dramatically reduce greenhouse gas emissions just with the reduced line-loss saving alone. We can avoid as much as 500 million tons of greenhouse gas each year, because we do not have to do as much compensatory generation. Add to that the multigigaton opportunity, if we are able to connect so much more solar and wind to the world's power grid.

You can make it happen. For example, you can support legislation, policy-making and regulations that require our utility companies to consider advanced conductors in transmission, reliability, decarbonization or grid-modernization planning, while at the same time providing performance or other incentives that are enabled by new technology like TS so that they can improve grid performance by investing in this technology.

Conductors have a design life of 50 to 70 years. Let's upgrade our power grid, build it better for a clean energy future, today. We cannot afford to have another 50 to 70 years locked up with century-old technology in our power grid. I believe firmly that our power grid can and should be the enabler for energy transition. We have an opportunity to write that legacy. We went from dial-up internet to 5G in a couple of decades. We can do the same for our power grid. We just need to start now, with the right conductor technology available today. Together, we can make a difference for humanity and for climate change.”

Appendix D Email to Natural England expressing concern about advice given to the Applicant.

Dear [Natural England Planning Adviser 9th March]

I seek your clarification about Natural England's advice to National Grid about the risk to birds of collisions with power lines in the Norwich to Tilbury proposal.

According to NG documentation: "extensive surveys covering all farmland areas were not considered necessary; this was agreed with Natural England during consultation in August 2022 and so is not discussed further."

This appears to be because farmland birds are perceived only to contain passerines and that these are not harmed by collisions with power lines.

As you can imagine, this is of concern.

Firstly, there is a large body of evidence that passerines are killed in collisions with power lines.

Secondly, there are countless examples of/records of non-passerines living in, migrating across or feeding in farmland along the pylons route. These, and the passerines will be at considerable risk from the overhead lines, and would not be at risk from undergrounding using HVDC cables installed by cable ploughing, which is our preferred alternative.

I attach one of our papers that summarises our concerns and includes the records and sightings of waterfowl along the route.

If I have interpreted National Grid's evidence correctly about Natural England's position then birds in the region have been put directly at risk of harm/death wrongly and unnecessarily.

I've included this email in our latest submission to the Inspectorate and will tell them I'll be seeking clarification.

(I did try to get in touch back in November via Patrick Welch, who said you would be in contact with me).

I'd be very grateful if we could have an urgent discussion or if you could email me your thoughts given the tight deadlines we're operating under during the DCO.

Thank you in advance

Best wishes

[Pylons East Anglia]

Email 10/3/26 to Natural England

Dear xx, Further to my email yesterday, the attached will be of interest to you. It summarises the situation - it's a Bird Collision Matrix that compares birds known to be on the route of Norwich to Tilbury, with mortality of those species previously.

I look forward to hearing from you soon. Thank you, Rosie

Appendix E Bird Collision Matrix

Species (NG breeding bird survey)	BTO Dungeness powerline mortality study numbers found dead Table 3 in Stevens 2023)	Ringed Bird deaths reported as hit wires, found under wires, or electrocuted in Essex, Suffolk and Norfolk (BTO) (Table 4 in Stevens 2023)	IUCN Status (Threatened and Near Threatened only)	UK Green, Amber, Red list status
Arctic Tern <i>Sterna paradisaea</i>				Red
Barn Owl <i>Tyto alba</i>		30		Green
Blackbird <i>Turdus merula</i>	52	20		Green
Blackcap <i>Sylvia atricapilla</i>	16			Green
Black-headed Gull <i>Chroicocephalus ridibundus</i>	13	28		Amber
Blue Tit <i>Cyanistes caeruleus</i>		1		Green
Bullfinch <i>Pyrrhula pyrrhula</i>		2		Amber
Canada Goose <i>Branta canadensis</i>		47		N/A
Carrion Crow <i>Corvus corone</i>				Green
Cetti's Warbler <i>Cettia cetti</i>				Green
Chaffinch <i>Fringilla coelebs</i>	6			Green
Chiffchaff <i>Phylloscopus collybita</i>	4			Green
Coal Tit <i>Periparus ater</i>				Green
Collared Dove <i>Streptopelia decaocto</i>	1	1		Green
Common Buzzard <i>Buteo buteo</i>		1		Green
Common Gull <i>Larus canus</i>	35	1		Red
Coot <i>Fulica atra</i>	30	4		Green
Cormorant <i>Phalacrocorax carbo</i>		9		Green
Corn Bunting <i>Emberiza calandra</i>	2	1		Red
Cuckoo <i>Cuculus canorus</i>	1			Red
Dunnock <i>Prunella modularis</i>		1		Amber

Egyptian Goose Alopochen aegyptiaca		3		N/A
Fieldfare Turdus pilaris	38	1		Red
Fulmar Fulmarus glacialis		1		Amber
Gadwall Anas strepera		3		Amber
Garden Warbler Sylvia borin	12			Green
Goldcrest Regulus regulus	2			Green
Goldfinch Carduelis carduelis	2	3		Green
Great Black backed Gull Larus marinus	47	2		Red
Great Spotted Woodpecker Dendrocopos major				Green
Great Tit Parus major				Green
Green Sandpiper Tringa ochropus				Amber
Green Woodpecker Picus viridis				Green
Greenfinch Carduelis chloris	2	9		Red
Grey Heron Ardea cinerea		26		Green
Grey Partridge Perdix perdix	4			Red
Grey Wagtail Motacilla cinerea				Amber
Greylag Goose				Amber
Herring Gull Larus argentatus	18	6		Red
Hobby Falco subbuteo				Green
House Martin* Delichon urbicum				Red
House Sparrow* Passer domesticus	2			Red
Jackdaw Corvus monedula				Green
Jay Garrulus glandarius				Green
Kestrel Falco tinnunculus		11		Amber
Lapwing Vanellus vanellus	3	5	NT	Red
Lesser Black backed Gull Larus fuscus	23	15		Amber

Lesser Spotted Woodpecker <i>Dryobates minor</i>				Red
Lesser Whitethroat <i>Sylvia curruca</i>	5			Green
Linnet* <i>Linaria cannabina</i>		1		Red
Little Egret <i>Egretta garzetta</i>				Green
Little Grebe <i>Tachybaptus ruficollis</i>	7	2		Green
Long-tailed Tit <i>Aegithalos caudatus</i>				Green
Magpie <i>Pica pica</i>	1			Green
Mallard <i>Anas platyrhynchos</i>	5	18		Amber
Marsh Harrier <i>Circus aeruginosus</i>		4		Amber
Marsh Tit <i>Poecile palustris</i>				Red
Meadow Pipit <i>Anthus pratensis</i>	2			Amber
Mistle Thrush <i>Turdus viscivorus</i>	2			Red
Moorhen <i>Gallinula chloropus</i>	38			Amber
Mute Swan <i>Cygnus olor</i>	3	224		Green
Nightingale <i>Luscinia megarhynchos</i>				Red
Nuthatch <i>Sitta europaea</i>				Green
Oystercatcher <i>Haematopus ostralegus</i>			NT	Amber
Peregrine <i>Falco peregrinus</i>		1		Green
Pheasant <i>Phasianus colchicus</i>				N/A
Pied Wagtail <i>Motacilla alba</i>	1	1		Green
Pochard <i>Aythya ferina</i>			VU	Red
Raven <i>Corvus corax</i>		1		Green
Red Kite <i>Milvus milvus</i>				Green
Red-legged Partridge <i>Alectoris rufa</i>				N/A
Redshank <i>Tringa totanus</i>		1		Amber
Redstart <i>Phoenicurus phoenicurus</i>				Amber
Reed Bunting <i>Emberiza schoeniclus</i>	1	1		Amber

Reed Warbler Acrocephalus scirpaceus	14		Green
Ring-necked Parakeet			N/A
Robin Erithacus rubecula		4	Green
Rook* Corvus frugilegus			Amber
Sand Martin Riparia riparia		2	Green
Scaup Aythya marila			Red
Sedge Warbler Acrocephalus schoenobaenus	14		Amber
Shelduck Tadorna tadorna	4	2	Amber
Skylark Alauda arvensis	16		Red
Song Thrush Turdus philomelos	61	3	Amber
Sparrowhawk Accipiter nisus		4	Amber
Starling* Sturnus vulgaris	489	12	Red
Stock Dove Columba oenas	2	1	Amber
Swallow Hirundo rustica	3	11	Green
Swift Apus apus	5	6	Red
Tawny Owl Strix aluco		1	Amber
Treecreeper Certhia familiaris			Green
Whitethroat Sylvia communis	15		Amber
Willow Tit Poecile montanus			Red
Willow Warbler Phylloscopus trochilus	25		Amber
Woodpigeon Columba palumbus	45	3	Amber
Wren Troglodytes troglodytes	1	1	Amber
Yellow Wagtail Motacilla flava			Red
Yellowhammer Emberiza citrinella			Red

Number of collision risk species	44	47
Percentage of NG species identified as collision risk (from BTO data)	45	48
Number of Amber list collision-prone species	14	18

Number of Red list collision-prone species	13	9
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