

Deadline 8 submission

This submission sums up issues where we remain in disagreement with the Applicant.

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Critical National Priority

1. We maintain and rely upon the Opinions of Lord Banner KC. We do not repeat those arguments at Deadline 8. No inference of agreement with the contrary opinion advanced by Mr Harris KC should be drawn from the absence of a further reply.
2. A Critical National Priority (“CNP”) infrastructure project must accord with policy, not least the National Policy Statements EN-1 and EN-5, the Planning Act 2008 and the Electricity Act 1989. Being a CNP project does not exempt it from obligations.
3. National Policy Statement EN-1 (“EN-1”) states, in paragraph 4.1.5, that the Secretary of State should have regard to the project’s “potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy.”
4. EN-1 paragraphs 4.2.10–4.2.15 state:

Before the CNP presumptions apply, the Secretary of State must be satisfied that the Applicant has complied with the NPS requirements, applied the mitigation hierarchy and demonstrated that the residual impacts are genuinely unavoidable.
5. Even where the CNP presumptions apply, they do not cover residual impacts presenting an unacceptable risk to or interference with human health and public safety, defence, irreplaceable habitats, net zero, or onshore flood and coastal erosion risk.
6. The evidence we have submitted during the Examination demonstrates, first, that the Applicant has not satisfied the gateway requirements necessary for the CNP presumptions to apply and, secondly, that a number of the Project’s unresolved residual impacts fall within the express exceptions to those presumptions.
7. Furthermore, there are exemptions to the CNP presumption, several of which are triggered by N2T (as well as harm caused to Green Belt, Local Green Spaces, the National Landscape and SSSI’s along the route - EN-1 5.11.38):

Risk to human health

8. Acid sulphate soils – the Applicant now admits that it has not carried out tests for acid sulphate soils, despite these being known to exist in the region’s river valleys. These are known as the world’s nastiest soils, with risks to the environment and human health. We refer the ExA to the submissions by Dr Dent.
9. Aviation – the CNP exemption is triggered when airfields identify risk to human life from operations when N2T is built.
10. The British Gliding Association¹, for example, remains concerned about scenarios relating to low height and shallow glide angle approaches, and also that there is an increased risk to glider operations at Tibenham due to the Project, which will not be resolved within the examination.
11. Likewise, Raydon Wings² remains in disagreement with the Applicant as follows, “The Stakeholder position is that the proximity of General Aviation aerodromes and associated safety impacts was not appropriately considered during the early stages of the Project’s design development” and “The Stakeholder position is that the Applicant’s engagement and

¹ https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-004109-8.3.89%20Signed%20Statement%20of%20Common%20Ground%20-%20British%20Gliding%20Association_Revision%20C_Tracked%20Changes%20Version.pdf

² https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-004142-8.3.35%20Final%20Statement%20of%20Common%20Ground%20-%20Raydon%20Wings%20Aerodrome_Revision%20C_Clean%20Version.pdf

consultation throughout development of the Project design was inadequate, including in relation to the position of the overhead line.”

12. Similarly, Priory Farm Airfield³ also remains in disagreement with the Applicant: “The Stakeholder’s position is the Applicant has inadequately considered authoritative aviation guidance and has not fulfilled its ‘Agent of Change’ responsibilities with regards to mitigation.”
13. This is symptomatic of the approach to a predetermined technology and route by the Applicant throughout consultations since April 2022. It is clear that the Secretary of State cannot be satisfied (EN-1): “5.5.50 In particular, the Secretary of State should be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes.”
14. Our previous submissions set out why the Applicant is wrong to state that the CNP exemption is not brought into play.
15. Mental health – our own surveys have identified substantial mental health issues due to N2T, and we submitted a mental health survey at Deadline 4 (REP4-369). This impact on human health is unacceptable.
16. Protected Characteristics.
17. Within REP4-369, we also pointed out the failure to take into account Protected Characteristics such as pre-existing physical and mental health, which is a failure under the Equality Act 2010 and EN-1 4.4.6 which requires the Applicant to seek opportunities to “mitigate indirect impacts by promoting local improvements to encourage health and wellbeing.
18. This includes potential impacts on vulnerable groups within society and impacts on those with protected characteristics under the Equality Act 2010, i.e. those groups which may be differentially impacted by a development compared to wider society as a whole.” Yet our surveys have demonstrated the level of mental health impact caused by the project and by the Applicant, and that pre-existing (and new, caused by the project) physical conditions have not been identified or addressed.
19. Those with pacemakers, for example, have been neglected throughout the process and remain deeply concerned given the stated possibility (by the Applicant) that the high voltage network may interfere with these devices:

“There are also ‘indirect’ effects that can occur as a result of exposure to EMFs, and which are not explicitly covered by the exposure guidelines. Examples of indirect effects are interference with active implantable medical devices (AIMDs), and microshocks” (1.3.6 in REP3-034)

“2.10.5 The Project would be capable of producing EMFs which, while still compliant with the public exposure limits, are in excess of the reference levels for public exposure. Therefore, in theory, some interference of EMFs with AIMDs could possibly occur.” (2.10.5 in REP3-034)
20. While the Applicant comes to the conclusion that because no incident has yet been reported, there is a ‘negligible’ risk, this does not feel reassuring, and the Applicant has made no effort to identify those with pacemakers or to provide those who have been asking questions since 2022 with information.
21. The Applicant has failed to provide the information and assessment necessary to enable the Secretary of State to discharge the public sector equality duty conscientiously and with

³ https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-004139-8.3.36%20Final%20Statement%20of%20Common%20Ground%20-%20Priory%20Farm%20Airfield_Revision%20C_Tracked%20Changes%20Version.pdf

adequate regard to the differential effects of the Project upon people sharing protected characteristics.

22. Farming – the risks of farming and operations near or under high voltage overhead lines are passed back to the farmers. It is still not clear that the sag/ground clearance for today's modern machinery is safe. We note that issues concerning agricultural safety remain unresolved (as per Land Agents' submission 20 July⁴).

Flooding

23. The Applicant's Deadline 6–7 revisions to the DCO, CoCP, DASSI, Drainage Strategy, FWEP and Schedule of Changes don't address eight of the nine specific technical concerns (Table 1). Going into Deadline 8, the record still doesn't contain the ground investigation data, the Tilbury North culvert calculations, the FRA discharge limits, the Exception Test reasoning for FZ3 link pillars, or the site-specific fluvial modelling for the Tas and Wid.
24. NPS EN-1 paragraph 5.8.36 requires the Secretary of State to be satisfied of — among other things — an appropriate FRA. That test isn't met on the current record when two of the four LLFAs whose areas cover most of the route continue formally to record the FRA and the Drainage Strategy as Not Agreed at signed Deadline 7.
25. Please see also full note in Appendix A from PEA Ltd's hydrologist, and local case study in separate Appendix C from Roxwell Flood Prevention Group.

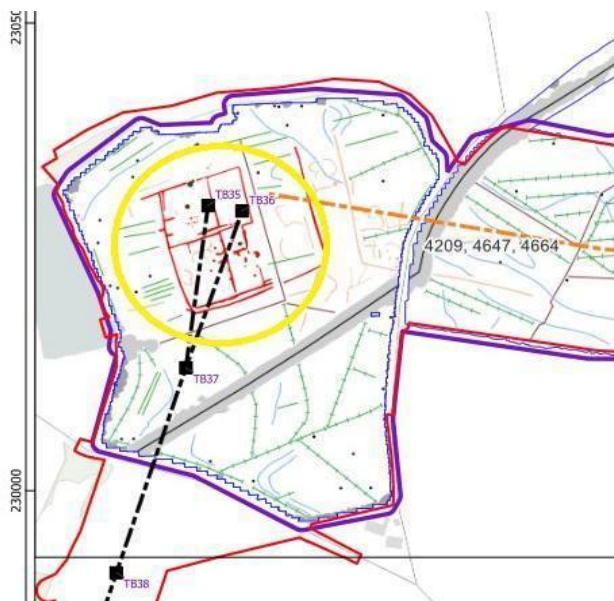
Defence and security

26. Our submissions to the ExA demonstrate that the Applicant has not provided any evidence that they have acted in accordance with National Policy Statement requirements.
27. EN-1 4.16.4 states that there may be national security considerations: *"Government policy is to ensure that, where possible, proportionate protective security measures are designed into new infrastructure projects at an early stage in the project development"* There is no evidence that this was done.
28. *"4.16.6 Where national security implications have been identified, the applicant should consult with relevant security experts from NPSA, ONR (for civil nuclear) and/or DESNZ to ensure security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks."* There is no evidence that the national security implications have ever been raised or discussed, let alone that there has been any consultation with relevant security experts.
29. *"4.16.7 The applicant should only include sufficient information in the application as is necessary to enable the Secretary of State to examine the development consent issues and make a properly informed decision on the application."* There is virtually no information on security and defence in the DCO submission, so the Secretary of State cannot make an informed decision.
30. New, as opposed to withdrawn, EN-1 also notes (2.4.6) that The Clean Power 2030 Action Plan sets the need to maintain high levels of resilience and security...and in managing threats to our national security" Thus the Clean Power speed objective cited by the Applicant is not the only priority. National security is essential, too.

⁴ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-004051-Response%20for%20Deadline%207.pdf>

Historic Environment

31. Paragraph 4.2.17 says that CNP infrastructure is to be treated as having met tests under which substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional. The Secretary of State cannot be sure of the level of harm to assets along the route due to the approach taken by the Applicant. In Appendices C and Ci, sent separately from this paper, we include two final submissions by Bidwells which state that:
- Repeated Signposting Does Not Constitute a Substantive Response
 - GPA3 Five-Step Methodology not thoroughly carried out
 - PEA does not accept that Historic England's agreement is a fair representation of the position.
 - We see Corroborated, Systemic Pattern, Not a Difference of Opinion
 - The Planning Balance Is No Substitute for an Adequate Assessment
 - That undergrounding as the only effective mitigation available
32. **Archaeology.** We are also concerned about the failure of the Applicant to take into account consultation responses. For example, the image shows the outline of a Roman villa and other structures(Asset 4050) from the Applicant's geophysics.



33. The Applicant's geophysical survey and trial trenching confirm a substantial Romano-British enclosure complex incorporating a possible building, industrial activity and a cremation, situated within and around the proposed Great Horkesley CSE compound. The Applicant itself predicts a permanent moderate adverse residual effect which is significant. We disagree. Complete destruction of the asset via cut-and-cover trenching and a sealing end compound on top of the asset will cause severe adverse effects.
34. This is not an unforeseen archaeological discovery. The Applicant has not demonstrated that it conscientiously considered the repeated pre-application warnings concerning this precise location, nor has it provided an adequate comparative assessment of reasonable local alternatives capable of avoiding the asset. The continued location of the CSE and cable works over asset 4050 is therefore inconsistent with the mitigation hierarchy and EN-1 paragraphs 5.9.9, 5.9.16 and 5.9.24. Preservation by record cannot substitute for consideration of

preservation in situ. This is not the only example of archaeology at Fordham that is at risk. See map at REP4-329 Fordham Parish Council.

35. HVDC undergrounding of the whole N2T project would result in greater flexibility of route choice to avoid assets such as this, assisted by narrower construction swathes.
36. Similarly, in Ardleigh the Applicant has not taken on board information about the section of the Ardleigh Cropmark Complex intersected by the proposed project which is considered to have the archaeological potential to demonstrate equivalent significance to the scheduled monument. In submissions from Ardleigh Parish Council since 2022, the Applicant has been advised of the high archaeological potential of this area and therefore has not avoided the harm, not conducted surveys early enough in the project and not conducted the right type of survey or rerouted the infrastructure to avoid harm.
37. Past submissions have also highlighted that key information was missing from the Applicant's non-designated heritage asset maps. Information on the archaeology of the Ardleigh Cropmark Complex did not appear on the maps supplied by the Applicant until Examination had commenced. Other information is still missing from the maps.

Need

38. The Applicant has not demonstrated that the boundary need must be met by 2030. There are delays to connections, which Hiorns warned about in his report for the County Councils in 2023 and which have indeed materialised. Thus, the urgency is not as presented by the Applicant. As far as we are aware, the Applicant has not refuted our own analysis (including in RR-2973 document EN020027-000801) of the need case, which is significantly lower and later than presented.
39. Although the Applicant states that they have addressed our points on the need case in 8.8.2 (Comments on Local Impact Reports REP2-030) we still cannot see where the Applicant addresses the important detail, first of the Hiorns report that cites delays to connections, and second, to the demonstrated delays to connections that we have set out in our own submissions. The Applicant simply states that it disagrees with Hiorns, pointing to Clean Power 2030 (CP2030) as the reason for need and speed.
40. In fact, the CP2030 report (as we have pointed out before) is inaccurate and therefore unreliable as an evidence source. The Applicant presents a table from CP2030 as Image 3.3 in document 8.8.2. Yet this image shows that NESO claims constraint costs due to projects that have nothing at all to do with East Anglia (Rampion) or with Sealink (Five Estuaries), thus claims for constraint costs of between £1.1bn and £1.4bn are simply incorrect⁵.
41. The Secretary of State cannot rely on a need case from NESO that is wrong, nor on assertions that Hiorns is incorrect without detailed evidence about specific projects. We carried out that analysis ourselves (submitted to the Examination), and Hiorns was right in 2023 that the estimates for connection of new generation were too optimistic by around 4.5 years on average. There is no evidenced case that N2T has to be built by 2031/2030.
42. Finally, just because there are connections offered to Five Estuaries, North Falls and Tarchon has no bearing on whether N2T should be approved or not.

⁵ It is right to add that, given widespread press coverage of issues at NESO this summer (with engineer whistleblowers expressing concerns about the way the grid is being run), Claire Coutinho, MP, has described the CP2030 report as 'one of the most discredited reports I have ever seen'. It cannot form the basis for any sensible decision-making. In addition, in February 2025, NESO was shown by an FOI for The Times not to be independent from Government.

Alternatives

EIA

43. Regulation 14(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the Environmental Statement to describe the reasonable alternatives studied by the Applicant which are relevant to the proposed development and its specific characteristics, and to provide the main reasons for the option chosen, taking the environmental effects into account. Paragraph 2 of Schedule 4 expressly includes alternatives relating to development design, technology, location, size and scale.
44. The Environmental Statement skirts over alternatives (REP7-158), referring back to the 2022 CPRSS. This means that not only does the Environmental Statement not provide a sufficiently transparent and consistently based project-level comparison of the significant environmental effects of the predominantly overhead AC proposal and an underground HVDC alternative. This is particularly important given the disputes during the Examination concerning capacity, converter costs, cable and construction swathe widths, construction methodologies and the extent of environmental disturbance.
45. The assessment pre-dates the DCO by four years. It pre-dates all consultations. It pre-dates the NESO Anglia Study. The strategic choice was made before consultation; subsequent consultation largely concerned the alignment and siting of that already-selected solution; and the ES does not transparently demonstrate that later consultation responses, later evidence and materially changed circumstances were used genuinely to reopen the strategic alternatives assessment.
46. It contravenes 14(3 b) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 “include the information reasonably required for reaching a reasoned conclusion on the significant effects of the development on the environment, taking into account current knowledge and methods of assessment”. It does not include information on alternatives (also required in 14(2)d.)
47. The ES Chapter reminds us that, somewhat miraculously, the Preferred Option has consistently been confirmed as the strategic preference, despite consultation responses presenting requests and evidence for alternative solutions that meet the same need (paragraph 3.4.29).

The Applicant states that (3.5.13) Decision planning then determined preferred corridors and substation siting zones, guided by the following principles:	Pylons East Anglia’s response
Using or adapting existing infrastructure is generally preferable to creating new infrastructure	The Applicant has not used the disused infrastructure at Bradwell, or the corridor where the 132kv pylons will be removed, which could become an HVDC underground corridor. The Applicant has not considered how the existing grid could be upgraded using the most recent (instead of 20 year old) High Temperature Low Sag conductors. Even the current Pelham upgrade is not bringing a significant capacity increase.

Shorter routes are generally preferable to longer routes (for comparable technology options)	The Applicant has chosen a route which requires a c10km detour through the Dedham Vale National Landscape to reach the EACN. Not only does this bring environmental and community and heritage harm, it is extremely costly.
Financially less-expensive options support National Grid's statutory duty for an 'efficient, co-ordinated and economical' network	Offshore coordination is known to reduce costs. Upgrading the existing infrastructure is cheaper than building new. Cable ploughing is cheaper than cut-and-cover. HVDC undergrounding is broadly the same cost as AC pylons/undergrounding through the Dedham Vale, if all costs are included properly.
Options which avoid, minimise and mitigate environmental or socio-economic impacts are preferable to those with significant residual effects.	As the Applicant has not quantified the impacts, there is no way of knowing which options are best. (Pylons East Anglia HAS quantified these impacts, using Green Book compliant techniques, as the Applicant should have done).

48. The Applicant's ES defines a reasonable alternative as one capable of delivering an equivalent 400 kV double circuit connection by 2030. That risks circularity. A 400 kV AC double circuit is the Applicant's chosen technical solution; it is not necessarily the underlying project objective. The underlying objective is the required network reinforcement and transfer capacity. Defining the objective by reference to the selected voltage and technology can exclude alternatives precisely because they use a different means of meeting the need.
49. This requirement is distinct from the provisions of EN-1 paragraphs 4.3.22–4.3.29 concerning the weight which the Secretary of State may give to alternative proposals. Those provisions do not justify defining the objectives of the Project so narrowly that the Applicant's selected technology becomes part of the objective itself.

National Policy Statements

50. The Applicant decided, long before the first consultation in 2022, that the preferred option was HVAC overhead lines (underground in the National Landscape) between Norwich and Tilbury, and presented only one route for consultation. Nothing submitted through consultation has resulted in the Applicant reopening or materially reconsidering the fundamental strategic decision to construct a predominantly AC overhead-line connection. The consultations did not provide a genuine opportunity to influence, nor did they present sufficient information about credible alternatives and the reasons for their rejection to enable an intelligent response. Even before we look at the requirements of the policy statements, this is a breach of the Gunning Principles, which require consultation at a time when proposals are still at a formative stage. They were not. Nor were the results of the consultations conscientiously taken into account. We have already made the ExA aware of consultation failings, relating to these and the other Gunning principles.
51. The starting presumption for overhead lines is only that – a starting point. NPS's require a consideration of alternatives as follows:

- EN-1 5.4.43 “If significant harm to biodiversity resulting from a development cannot be avoided (for example through locating at an alternative site with less harmful impacts)...”.
 - EN-5 2.10.1 The applicant should consider and address routing and avoidance/minimisation of environmental impacts both onshore and offshore at an early stage in the development process.
 - EN-5 1.1.6 ...right kind of technology is brought online at the right time, in the right places.
 - EN-5 1.1.8 seeks to strike an appropriate balance between costs to consumers, timely delivery and the minimisation of community and environmental impacts of new network infrastructure from an early stage of network planning.
 - EN-5 2.2.10 ...applicants must take into account Schedule 9 to the Electricity Act 1989, which places a duty on all transmission and distribution licence holders, in formulating proposals for new electricity networks infrastructure, to “have regard to the desirability of preserving natural beauty, of conserving flora, fauna and geological or physiographical features of special interest and of protecting sites, buildings and objects of architectural, historic or archaeological interest; and ...do what [they] reasonably can to mitigate any effect which the proposals would have on the natural beauty of the countryside or on any such flora, fauna, features, sites, buildings or objects.”
 - NEW EN-1 3.2.3 ... there is no singular path to achieving clean power, but instead, that there are a range of scenarios that could get us there.
52. PINS Guidance “Nationally Significant Infrastructure Projects: Advice on Preparing Applications for Linear Projects” actively encourages options:
- “Options within DCOs.** Flexibility for future commercial delivery alternatives or technological advancement can require options to be kept open at application and consent stages. Operational options within applications for linear projects can cover:
- routing
 - electrical current, high voltage alternating current (HVAC) or high voltage direct current (HVDC), which also influences the need for converter stations”
53. According to EN-1, alternatives should be
- Able to meet the objectives of the proposed development (EN-1 4.3.22)
 - Realistically deliverable (EN-1 4.3.23) at the same infrastructure capacity (including energy security, climate change, and other environmental benefits) in the same timescale as the proposed development.
 - Important and relevant to the decision (EN-1 4.3.25)
 - In accordance with the NPSs (EN-1 4.3.26)
 - Be identified before application to the Secretary of State (EN-1)

Summary of alternatives

54. The alternatives that we have presented since April 2022 meet those criteria:
- **HVDC** – we have seen no evidence from the Applicant that an underground HVDC solution is not achievable. Our own analysis, most recently submitted at Deadline 6, shows that an HVDC solution is broadly comparable cost-wise with an AC solution.
 - the assessment is largely strategic and high-level rather than a transparent project-specific comparison;

- the environmental advantages are acknowledged but not comprehensively evaluated;
 - the relative construction footprints, trench widths, habitat losses, archaeological effects, agricultural impacts and lifetime effects are not compared consistently or accurately;
 - the reasons for rejecting HVDC depends upon disputed cost, capacity and construction assumptions.
55. **Cable Ploughing** – The Ramboll report demonstrates that it is a plausible alternative. We are unaware of any assessment of this option in the ES (despite it being a solution which would significantly reduce harms in the Dedham Vale in the project proposed, or overall if an underground HVDC solution was adopted). We can see no evidence or good reason why cable ploughing would not be preferred over cut and cover in the National Landscape, or if the entire route was undergrounded using HVDC. In fact, the evidence from reports, which we have submitted, indicates that cable ploughing is cheaper, faster and less environmentally damaging.
56. **High Temperature, Low Sag Conductors** – we have seen no evidence that:
- the Applicant evaluated an upgrade of the existing grid using the latest, highest capacity HTLS conductors (in the style of TS Conductors)
 - there was any consideration of using these conductors on new pylons between Norwich and Tilbury. The applicant appears to be relying on a 20-year old technology.
 - Both of these options would be cheaper and less harmful to the environment and communities, and should have been considered and presented for consultation. This is despite HTLS conductors and reinforcement of the existing network being:
 - an important and relevant alternative under EN-1 paragraph 4.3.25;
 - raised sufficiently early that paragraph 4.3.29 cannot be used to place the entire evidential burden on third parties;
 - directly related to Schedule 9 duties to mitigate effects.
57. **Offshore coordination.** EN-1 states (3.3.71): “For regions with multiple windfarms or offshore transmission projects it is expected that a more coordinated approach will be delivered. For these areas, this approach has the potential to reduce the network infrastructure costs as well as the cumulative environmental impacts and impacts on coastal communities by installing a smaller number of larger connections, each taking power from multiple windfarms instead of individual point-to-point connections for each windfarm.” Yet instead, we see the continuation of the piecemeal approach, with the particular harm caused at Ardleigh, where two wind farms and an interconnector converge across Tendring.
58. **Upgrading the existing network.** EN-5 2.11.3 states “The Secretary of State should also be satisfied that all feasible options for mitigation – including the rationalisation, reconfiguration, or undergrounding of existing electricity networks infrastructure, have been considered and evaluated appropriately.” From the evidence provided, we cannot determine that the existing network cannot be upgraded using the latest, highest capacity HTLS conductors, or HVDC overhead lines. The Bradwell substation remains unused and the 132kv overhead lines disused and due for removal. This corridor offers the opportunity to land HVDC cables and use the 132kv corridor for underground HVDC. Even if the boundary need cannot be met through an existing network upgrade, it would potentially reduce the need for a 400kV solution. The Applicant has repeatedly refused to look at this solution.
59. **Alternatives to proposed route alignment.** The Applicant has not demonstrated a meaningful comparative assessment of reasonable local alternatives. This can be seen, for example:
- At Great Horkesley, where the CSE compound and cut-and-cover cable works are located

upon the substantial Romano-British archaeological complex now confirmed by its own investigations. General reliance upon the national need for Norwich to Tilbury does not explain why this particular location and design are necessary or why a less harmful local alternative could not be adopted.

- At Fordham, where numerous submissions about the frequency of archaeological findings along the route have been insufficiently dealt with.
 - In the Chelmsford area, where the submissions of the NW Parishes, including a professional landscape study, about the consideration of alignments for AC OHL have been inadequately addressed.
 - In the Colne Valley, dealt with in detail below.
 - In the Waveney Valley, where respondents have raised concerns about the consideration of alternatives including route alignments and undergrounding.
 - On a microscale on numerous occasions, when landowners have requested pylon siting or haul road siting to better reflect the landscape or the business, but have had no satisfactory response from the Applicant.
60. Accordingly, the Examining Authority and Secretary of State cannot be satisfied, on the information presently available, that the Environmental Statement provides an adequate description and comparison of the reasonable alternatives studied, or adequate reasons for the chosen option which properly take environmental effects into account.

Cable Ploughing and Haul Roads

61. We respond to the Applicant's comments relating to Cable Ploughing and Haul Roads in "Appendix E, Applicant's Response to Pylons East Anglia (PEA)"⁶
62. The Applicant states the following at the start of the [REP7-481] response to PEA [REP6-229]:
- "The Applicant has provided a significant number of responses around these topics and PEA continues to assert positions without responding to evidence supplied at previous deadlines. The response below is consistent with our documentation and previous responses."*
63. PEA highlights that it was responding to the recently released report from the Government commissioned study: "RAF021/2425 Study of the Potential for Cost Reduction in Undergrounding Transmission Lines over Long Distances", published on 12 June 2026. This is referred to as the "Ramboll" report, in reference to the consultancy who undertook the study.
64. The study brought new and relevant evidence, which was reviewed in "Appendix A: Cable Ploughing" of PEA submission [REP6-229].
65. The Applicant states: *"It should also not be assumed that cable ploughing resolves all issues as numerous utilities pipes and cables need to be crossed along with multiple hedgerows and other features along with the challenges of installing each cable at greater separation than is achieved in trenching"*.
66. Neither the Ramboll report nor PEA's review claim that *"cable ploughing resolves all issues"*. Both reports highlight both the pros and the cons. The PEA work in fact makes recommendations for future work and highlights limitations with the Ramboll study. It also identifies potential issues in one part of the study and works around these by referring to original data from the 2025 IET study, as this was the source of the relevant baseline data used in the Ramboll study.

⁶ in "8.4.16 Applicant's Comments on any Further Information or Submissions Received by Deadline 6" [REP7-481].

67. The Applicant's reference in this statement to crossing "*multiple hedgerows*", highlights an advantage of cable ploughing. A cable ploughing contractor has outlined to PEA how cable ploughing can minimise the harm to hedgerows. Due to the much narrower construction swathe and the fast installation, the contractor can lift sections of hedge with a large excavator and, in the same day, put them back in position with minimal disruption. This form of reinstatement therefore has significant advantages over replanting.
68. The Applicant quotes several issues that it asserts have not been addressed by the Ramboll report. Examples are:
- "*There will be a need for pre-ploughing or ripping hard ground*". Not so: the Ramboll report highlights that this can sometimes be the case.
 - "*It cannot be used if the area where the topography is largely rock, especially areas of granite rock with no substrate soil*". This is not relevant to the proposed project where the surface geology in the region is dominated by sedimentary layers and is devoid of granite.
69. The Ramboll report also covers the other points raised by the Applicant such as the need for haul roads and issues surrounding the incorporation of thermal backfill.
70. It is important to note that, as stated in the Ramboll report, and highlighted in previous PEA submissions, cable ploughing is being successfully employed elsewhere.
71. The Ramboll report indicates a tendency for contractors to keep to traditional methods due to familiarity and because they do not bear the cost. It states that "*...large principal contractors tend to prefer cut-and-cover as a construction method they are familiar with, with any increase in costs passed to clients*".
72. However, it highlights that: "*in the Netherlands, carbon footprints and dewatering issues led clients to instruct principal contractors to adopt cable ploughing as the installation method. Clients tend to recognise advantages in cable ploughing and consider it to be the preferred solution in subsequent projects*".
73. The Applicant states in its discussion on costs that "*all of these references show that cost parity with Overhead Lines is not possible*". To be clear, PEA is not claiming that there would be cost parity with the HVAC OHL "Lifetime Power Transfer Costs" presented in the 2025 IET report. When externalities are also considered these costs constitute just one element of the total cost, as illustrated in the previously submitted PEA report "Norwich to Tilbury Project Green Book Analysis".
74. It is interesting to note though that in evidence supplied by ATP Cable Plough to the Independent Advisory Group on Future Electricity Grid for Wales in September 2024⁷, ATP contrast the speed of delivery of cable ploughing with the much longer timeframe required for overhead lines. ATP then claims in the evidence: "*Cable ploughing can offer a significant reduction in time money and risk. It can provide for a huge increase in productivity over and above traditional ways of working.*"
75. In brief, the Ramboll report provides further evidence that cable ploughing is a credible, proven and relevant underground cable laying technique with proven potential to reduce cost, save time and reduce environmental harm. The PEA submission "Appendix A: Cable Ploughing" in [REP6-229], discusses analysis carried out by PEA where the findings from the Ramboll study, data from the 2025 IET study and the PEA "Norwich to Tilbury Project Green Book Analysis" were combined to illustrate the potential net result. All the assumptions are outlined in the report.

⁷ p14/44: <https://www.gov.wales/sites/default/files/publications/2026-03/cable-ploughing-evidence-submission.pdf>

76. In relation to the comments on haul roads, both the Ramboll report and the PEA response acknowledge that they may be required in some circumstances with cable ploughing. However, as highlighted in PEA submission [REP7-568], with both cut-and-cover and cable ploughing techniques the much lower material requirement of HVDC technology compared with HVAC technology means that the need to use haul roads is significantly reduced. This is not only due to the significant reductions in the cable requirement with HVDC but also the substantial reductions in the amount of material that needs to be excavated and the amount of backfill and other material that needs to be imported because of the need for far fewer trenches.
77. Therefore, when HVDC technology is combined with cable ploughing it has the potential to significantly enhance the advantages of this technique in relation to cost, time and the reduction in environmental harm.
78. PEA submission [REP6-229] "Appendix A: Cable Ploughing", provides illustrative calculations relating to the volume of aggregates and land take associated with the haul roads required with the current Norwich to Tilbury project plans.

Cable Swathes

79. This is an update to: "Cable swathes (7) and Haul roads (8)" section of PEA submission [REP7-568] (page 5/11 onwards).
80. After the submission of PEA [REP7-568], PEA was contacted by a Suffolk resident who was keen to emphasise how the underground HVDC cabling installed by ScottishPower Renewables to transfer the power from the East Anglia THREE (EA3) windfarm *"was achieved with very little fuss and bother"*. A BBC report from 6 February 2024 relating to the EA3 underground cable installation was subsequently uncovered and this highlighted how *"residents have praised an energy company for the environmental planning"*⁸.
81. The EA3 onshore cables run from Bawdsey on the coast to a converter station at Bramford, near Ipswich⁹. As this relates to underground HVDC cabling, this provides a further relevant comparison to add to those discussed in [REP5-265] (p143/197 onwards) and [REP7-568] (p5/11 onwards).
82. Information on the EA3 ducting and cable installation was obtained from ScottishPower Renewables. This is located within the East Anglia ONE Cable Method Statement¹⁰, as the ducts for EA3 were installed at the same time as those for EA1.
83. The drawings for the EA3 HVDC underground trenches show parallel sides with a width of 0.7m and a total depth of 1.8m. The dimensioning of the associated layout drawing appears to allow for a trench width of 1m. One of the sectional drawings also shows dashed lines at 30° to the trench sides. Assuming that this is to allow for trenches with splayed sides to be used in some circumstances, the resulting trench width at the surface has been calculated at 2.778m. As established in [REP7-568] this compares with a typical width of 2m for both the Tarchon Interconnector HVDC cable trench and the Hornsea 3 HVDC trenches (both with splayed sides).
84. The following image was copied from drawing "TYPICAL CROSS SECTION OF DC CABLE TRENCH"¹¹ included in the referenced Cable Method Statement. The two EA1 HVAC trenches

⁸ [REDACTED]

⁹

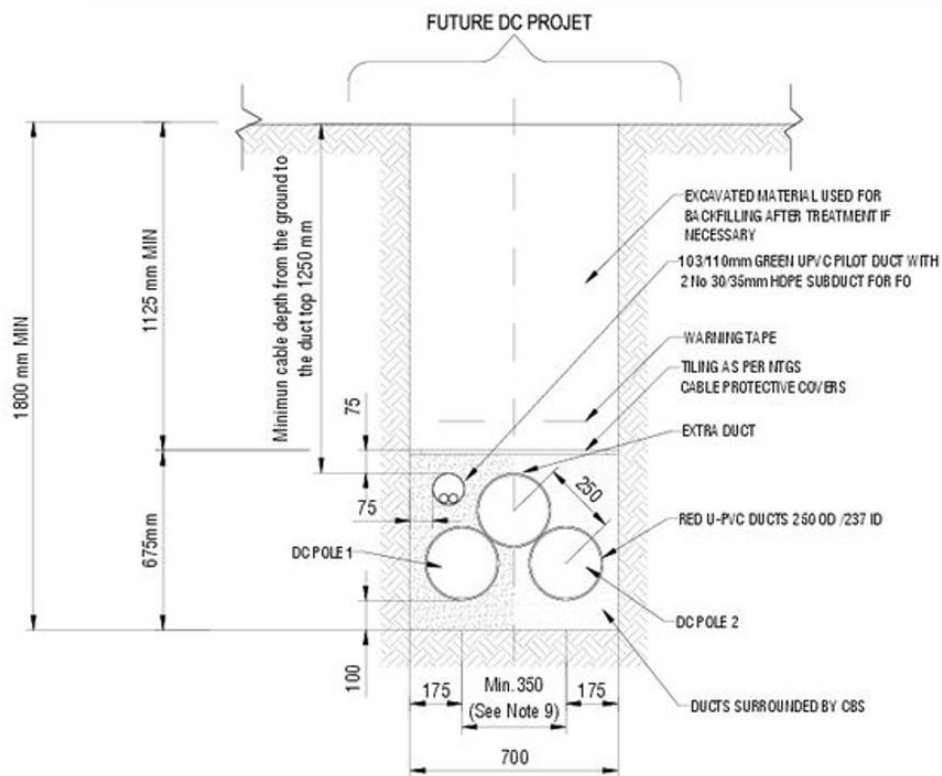
[REDACTED]

[REDACTED] Conditions Discharge Documents - Cable Method Statement:

[REDACTED]

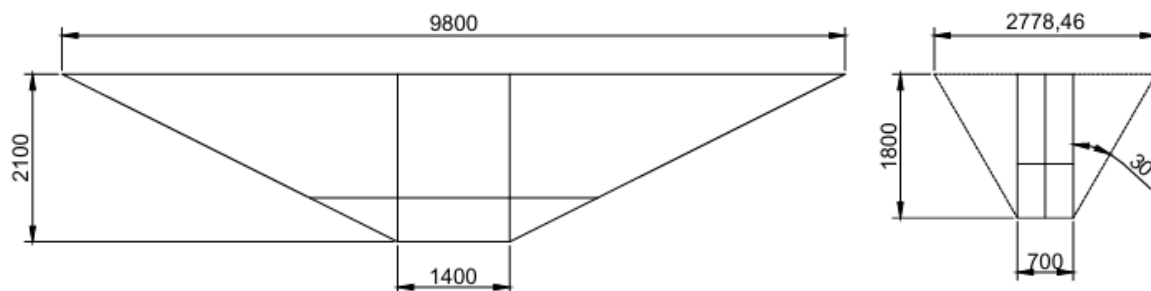
¹¹ Drawing number: EA1-GRD-D-IB-001302 (Rev: 0)

are slightly narrower at 560mm, but the 280mm (140mm x 2) total difference over two trenches is not significant relative to the scale of the resulting cable swathes.



EA3 HVDC Cable Trench

85. These dimensions and those quoted by PEA in [REP5-265], which include figures from the Applicant's EGL 3&4 HVDC project, therefore differ greatly from the HVDC trench width of 9.8m stated by the Applicant for the Norwich to Tilbury project. This dimension is provided on the Applicant's drawing "Figure C1" in Annex C of "8.5.3 Applicant's Written Summary of Oral Submission and Response to Action Points for Issue Specific Hearing 1" [REP1-139].
86. The following drawing shows, on the left, a single HVDC trench from the Applicant's drawing for the Norwich to Tilbury project and, on the right, a single HVDC trench from the EA3 project. In the EA3 drawing the 30° dashed lines shown on one of the ScottishPower Renewables drawings has been included, on the assumption that this is to allow for an option with splayed sides. With straight sides the trench would be just 0.7m wide. The two sections are drawn to the same scale.



Dimensions in mm

HVDC trench from Applicant's drawing HVDC trench from EA3

87. The ScottishPower Renewables drawings show that the space between the trenches is 5m, whether it applies to the space between two HVAC trenches or between HVAC and HVDC trenches. The EA1/3 layout drawings¹² show the following approximate swathe widths:
- 44.5m for the open cut construction swathe
 - 13m or 21m for the “permanent easement swathe” (depending on the configuration)
88. This is for 3 trenches: 2 HVAC (for EA2) and 1 HVDC (for EA3).
89. For comparison, the following is stated on the Applicant’s drawing “Figure C1” [REP1-139]:
- “Illustrative ~ 85m open cut construction swathe”
 - “Illustrative ~ 41m permanent cable installation width”
90. This also applies to 3 trenches, but in this case all 3 are HVDC.
91. Therefore, the Applicant’s HVDC trench and swathe widths are considerably larger than those specified by ScottishPower Renewables.
92. In the work carried out by PEA for [REP5-265], layouts were produced using the HVDC trench widths and depths specified by the Applicant for EGL 3&4, but with the splay angle specified by the Applicant for the Norwich to Tilbury HVAC trenches. This information is provided in the section with the title “Appendix: The Requirement for Good Design”, which starts on page 143/197 of [REP5-265].
93. This resulted in the following dimensions:
- 61m construction swathe
 - 31m permanent swathe
94. The information subsequently obtained on the Tarchon Interconnector and Hornsea 3 HVDC cable trench dimensions, as discussed in [REP7-568], and the information now obtained from ScottishPower Renewables for the EA3 HVDC trench dimensions indicates the potential for the HVDC trenches and the resulting cable swathes to be even narrower than this.
95. At 2 GW, the power requirement for each Norwich to Tilbury HVDC circuit is higher than EA3 at 1.4 GW and heating effects are a key consideration in trench design. However, a 2 GW circuit would operate at 525 kV, whereas EA3 operates at 320 kV. This reduces the current to transmit 2 GW to below that required to transmit 1.4 GW at 320 kV. The calculated current for the two options is shown in the following table.

Power (GW)	Voltage (kV)	Current (A)
1.4	320	4,375
2.0	525	3,810

96. As the power dissipated as heat is proportional to the square of the current (I^2), the reduction in the heating effect from an increase in voltage is greater than these figures suggest. Assuming

¹² Onshore Conditions Discharge Documents - Cable Method Statement:

the resistance of both cables to be the same, there would in fact be 24% less heat generated in the 2.0 GW, 525 kV alternative.

97. In [REP6-114], the Applicant requotes the following from the Applicant's [REP4-300] response:
- "For a comparable 6 GW HVDC connection an illustrative construction swathe of 85 m would be expected for standard open cut installation; details are provided in 8.5.3 Applicant's Written Summary of Oral Submission and Response to Action Points for Issue Specific Hearing 1 [REP1-139] Annex C Figure C1. In comparison 2.6.1 Design and Layout Plans - Subs and Cables [REP1 -003] National Grid Drawing Reference AENC-MMAC-ENG-DWG-0085-01, shows an illustrative construction swathe of 120 m. The reduction in temporary land take of the construction swathe for an HVDC installation is therefore 3.5 ha per km less than the equivalent HVAC installation."*
98. Replication of this calculation was carried in the work associated with PEA submission [REP7-568]¹³. The calculation was then performed with the Applicant's 85m HVDC construction swathe substituted with the corresponding figure of 61m obtained from the layout produced by PEA for submission [REP5-265]. This resulted in a land take for an HVDC installation construction swathe of 5.9 ha per km less than the equivalent (120 m) HVAC installation.
99. When the calculation is repeated with the 44.5m open cut construction swathe shown on the ScottishPower Renewables drawings, this results in a land take for an HVDC installation construction swathe of 7.6 ha per km less than the equivalent (120 m) HVAC installation. This is therefore more than twice the figure of 3.5 ha per km stated by the Applicant for the reduction in temporary land take achieved with HVDC cabling.
100. For comparison purposes it is also worthwhile performing similar calculations assessing the impact on the permanent swathe for HVAC and HVDC options. Using the approach the Applicant has taken in its calculation for the construction swathe, figures were derived for the difference between the permanent land take of the proposed HVAC Norwich to Tilbury cable swathe and the EA3 "permanent easement swathe".
101. To simplify the calculation the permanent swathe of the HVAC Norwich to Tilbury proposal was assumed to be 40m wide for a project length of 181km. The average width will be slightly greater than this because in the underground sections and in locations with low-height pylon the width of the permanent swathe width is around 50m.
102. As stated earlier, the EA3 "permanent easement swathe" is 13m or 21m depending on the configuration.
103. The calculations show the following:
- with a 13 m permanent swathe, the land take is 2.7 ha per km less than the current HVAC proposals. This equates to a reduction in land take of 489 ha for a project length of 181 km.
 - with a 21 m permanent swathe, the land take is 1.9 ha per km less than the current HVAC proposals. This equates to a reduction in land take of 344 ha for a project length of 181 km.
104. This demonstrates that a significant reduction in permanent land take is possible with underground HVDC. The figures, for example, substantially outweigh the 90 ha figure quoted by the Applicant in [REP4-300] for the combined area of the converter stations and compounds needed to accommodate the 6 GW capacity. It is also to be noted that the 90 ha figure quoted by the Applicant refers to the construction land take of the converter stations and therefore the associated permanent land take will be lower.
105. As highlighted in PEA submission [REP7-568], in [REP6-114] the Applicant simply requoted

¹³ Page 5/11 onwards

sections from the Applicant's previous submissions [REP4-300] and [REP1-139] without responding to the issues raised by PEA in [REP5-265]. Consequently, the significant discrepancies highlighted by PEA relating to trench sizes and the resulting cable swathes remain unexplained. Additional information subsequently obtained from other relevant projects, as discussed in this submission, has further reinforced the concerns raised.

106. PEA has focussed on this issue due to its significance. Such information is of key importance when comparing underground HVDC with HVAC. For example, a construction swathe of 44.5m, or even 61m, is significantly different to the typical 120m construction swathe quoted by the Applicant for underground HVAC. Furthermore, the HVAC construction swathe can be substantially larger than the typical width stated, due to the difficulty in routing a swathe of this width around constraints. This is illustrated in Figure 3 of PEA [REP7-568] in relation to the proposed route through the Dedham Vale National Landscape, where there would be two parallel swathes.
107. As demonstrated in the simplified calculations referenced in this document, this data is very relevant to the initial optioneering process where decisions are made on alternatives. It would not only apply to consideration of an onshore HVDC alternative. It would also apply to an offshore HVDC alternative, as this requires an HVDC underground cable from the Norwich Main substation to the coast. The swathe widths have a significant impact in many areas including environmental harm, cost and the construction timeframe. This information is therefore fundamental to the key trade-offs.
108. The only drawing that PEA has seen from the Applicant for underground HVDC cable swathes is Annex C, "Additional Cross Sections" Figure C.1 in [REP1-139]. This was issued in response to Action Points for Issue Specific Hearing 1. Unlike the HVAC version, it was not presented at the Hearing.
109. If, as appears to be the case, the Applicant's drawing greatly overstates the HVDC swathe widths, it casts doubt on the optioneering process as such information is key to the validity.
110. If alternative information was used in the optioneering process this should have been referenced in the Examination responses to PEA. Instead, the Applicant has only referred to the drawing in question, i.e. Figure C.1 in [REP1-139].

Additional note re. Alternatives

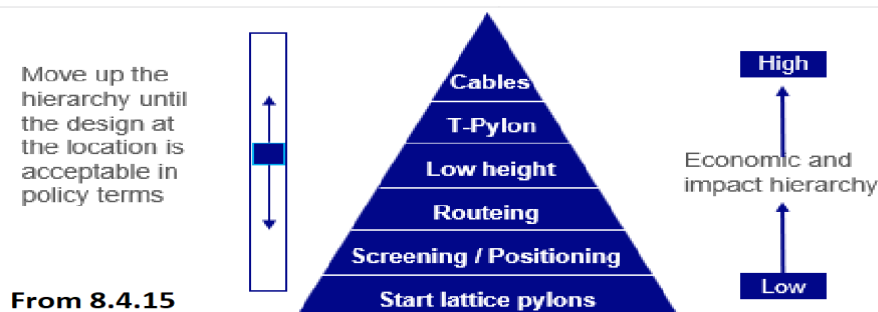
111. While investigating the EA3 project for information on HVDC trench widths, the location of the HVDC converter was questioned. If, instead of Bramford, it was located at Tilbury (preferably on a brownfield site), the power would be delivered using underground HVDC cables. As achieving this would use the existing converter, the cost of transferring the 1.4 GW capacity would be limited to a single pair of HVDC cables, with all the inherent environmental advantages that this entails.
112. This links into the discussion in PEA submission [REP6-229]. Under the heading "Alternative scenarios for underground HVDC circuits from Norwich to Tilbury" the [REP6-229] submission refers to Appendix G of Pylons East Anglia submission [REP5-265] which shows how the 3.48 GW of total capacity from the North Falls and Five Estuaries Offshore Windfarms plus the Tarchon Energy Limited Interconnector could be connected to the grid using HVDC transmission to minimise the impact. [REP6-229] highlights that when added to the 2.9 GW HVDC Hornsea 3 output it would result in a potential total HVDC capacity of 6.38 GW.
113. With the EA3 1.4 GW capacity added, the potential total capacity would therefore be 7.78 GW.
114. In addition, it was noted from the recent Tarchon Interconnector non-statutory consultation that the capacity has been increased from 1.4 GW to 1.8 GW. This would therefore add a further 0.4 GW, bringing the potential total capacity to 8.18 GW. This is therefore beyond the

requirements of the Norwich to Tilbury project and, in this scenario all the onshore transmission would be HVDC (apart from the cables between converters and substations).

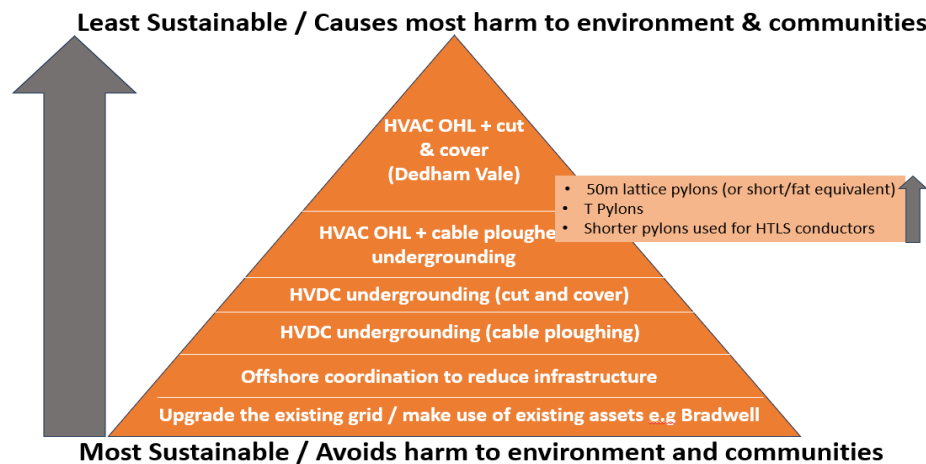
115. This is raised here as an example to highlight that much better, far less harmful options are available.
116. We discuss above how overstated trench widths and cable swathes leads to a flawed assessment of onshore HVDC technology. The Examination has also been informed of flaws in the assessment of offshore HVDC technology, in that a properly formulated proposal was not available in the optioneering stages.
117. In the speech from James Cartlidge MP at Open Floor Hearing 4 (OFH4) on 23 June 2026 [EV12-002] (00:20:40:16 onwards), he discusses a meeting between MPs, the Applicant and Ofgem held on 18 July 2022. In the meeting, James Cartlidge MP asked the Applicant to share their detailed evidence of alternatives to pylons. He states: *“they said they would provide me with such information and I quote in a few months, why not immediately I asked”*. James Cartlidge MP goes on to state: *“there has been no detailed assessment of an offshore option. Indeed, there has been no detailed assessment of any other option than pylons”*.
118. This meeting and the resulting letter from the Applicant, dated 11 October 2022, are discussed in PEA submission [REP5-265] (p164/197). It also needs to be highlighted that, as discussed by PEA in [REP5-265], *“the Applicant then updated the letter in January 2023 to correct significant cost errors. This would therefore indicate that from the outset the Applicant did not have a formulated HVDC offshore proposal, despite having already discounted this alternative”*. A copy of the letter is included in [REP5-265] (p170/197).

The Applicant’s proposed mitigation hierarchy

119. We have serious concerns about the *mitigation* hierarchy proposed by the Applicant in 8.4.15:



120. This cannot be accepted at face *value* – it needs to be evidenced, and supported by analysis such as Treasury Green Book analysis and environmental comparisons. **It is unjustified, inaccurate, has no foundation in policy or legislation, and cannot be relied on.** In fact, contradicts many of the NPS policies. Our own hierarchy is based on evidence submitted during four years of consultations and six months’ of Examination:



121. **Treasury Green Book** - We remain in dispute with the Applicant about their failure to adhere to the Green Book, in particular to quantify socio-economic and natural capital impacts. Please find our full rebuttal of Russell Harris's opinion in Appendix B.

Environmental issues

122. **Environmental Improvement Plan.** The Applicant has not demonstrated (as required in EN-1 4.3.20) how the Norwich to Tilbury Project would affect the achievement of the relevant statutory environmental targets or the ambitions and goals of the Environmental Improvement Plan. Its assertion that environmental topics have been addressed in separate Environmental Statement chapters is not an assessment of compliance with, or contribution towards, those targets.
123. In particular, no adequate route-wide assessment has been provided of the Project's effects upon species abundance, wildlife-rich habitat, ecological connectivity, tree and woodland canopy, hedgerows, water resources, resource efficiency or people's enjoyment of nature. Nor has the Applicant demonstrated how delayed, uncertain or off-site compensation would address those effects.
124. The evidence presently before the Examination is insufficient to enable the Secretary of State properly to discharge the duties identified in EN-1.
125. **Bats.** We remain concerned about the use of technology unscreened by human experts to identify bat species.
126. **Best and Most Versatile Farmland.** Despite claiming, in paragraph 6.6.2 of Chapter 6 of the ES, Agriculture and Soils, that the Applicant has an 'embedded mitigation' policy to avoid environmentally sensitive features, The Applicant has selected the most harmful option in terms of loss of farmland:
127. AC overhead lines and AC open-cut undergrounding have been selected instead of offshore or HVDC undergrounding. As we set out in our comparison of trench widths, this has a very significant difference in terms of land take.
128. For undergrounding, the Applicant has selected cut & cover instead of cable-ploughing, those increasing the farmland harmed.
129. The choice of EACN's location means that the route diverts east-west and back again, resulting in an additional and unnecessary 10km of project impact, as well as being an area with a large

amount of Grade 1 farmland.

130. We have seen no evidence from the Applicant of how loss of best and most versatile soils could be avoided via an alternative approach.
131. This is contrary to EN-1 5.11.34 “The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.”
132. **Bird collisions.** We remain of the view that the Applicant has not properly assessed the risk to birds and that the construction of a 180km, 50metre high barrier across three counties will injure and kill significant numbers of birds (a risk recognised in EN-5 2.9.3).
133. The Applicant has stated (8.4.13.1) that it has followed guidance that does not exist (CIEEM), and has ignored much of what ScotNature sets out in its guidance (as per our REP6-229).
134. Our own evidence (summarised in the Bird Collision Matrix) demonstrates that there is a risk to all types of birds, large and small, and that farmland birds must be surveyed. Our supporters have submitted photos of water bird feeding grounds along the route. Many of these are likely to be functionally linked to the coastal SPAs and SACs. The river corridors in particular see incidences of egrets, herons and cormorants in addition to geese, swans and ducks. Birds of prey are common along the route. This is contrary to EN-5 2.9.6, “Particular consideration should be given to feeding and hunting grounds, migration corridors and breeding grounds, where they are functionally linked to sites designated or allocated under the ‘national site network’ provisions of the Conservation of Habitats and Species Regulations”
135. The Applicant’s approach is the opposite of the precautionary principle.
136. Even the approach to bird diverters is perfunctory, being at two locations only, and not including night lighting, as far as we can tell. EN-5 requires (2.9.4) bird flappers and diverters which (2.10.3) swivel in the wind, glow in the dark and use fluorescent colours.
137. The Preferred Route that was presented in 2022 has remained the Preferred Route (bar a few tweaks within the original swathe). As confirmed to the ExA in 2022, bird surveys had not been considered. Although the route was chosen to avoid designated areas, the risk to birds functionally-linked to those areas remains, and the risk to the farmland/river corridor/waterbody birds along the route remains but is unquantified. Without evidence, the DCO cannot be granted.
138. We remind that underground HVDC or sub-sea solution or upgrade of the existing grid would completely avoid all risk of bird collisions.
139. **Dark skies.** We seek a Dark Skies strategy, to be signed off by Local Planning Authorities (LPA’s).
140. **Cumulative Impact.** We refer the ExA to the report for Ardeigh and Little Bromley Parish Councils.
141. **Greenhouse Gas Emissions.** The Applicant refers to its Cost Book analysis (Document: 6.4.A1 Environmental Statement Appendix 4.1 - Greenhouse Gas Assessment), but this does not appear to have been published. ES Appendix 4.1 describes the Applicant’s Cost Book as a tool at optioneering stage to compare the CO₂e associated with different options, including embodied construction carbon, emissions associated with SF₆ alternatives and operational transmission losses. It states that this information can be factored into the decision about which option to take forward. However, no comparative Cost Book outputs or results are presented in the Environmental Statement.

142. More significantly, the Applicant has subsequently confirmed (Document 8.4.6) that “an assessment of carbon emissions has not been undertaken for alternative options” and that carbon emissions “would not influence the option taken forward”. Its assertion that differences between alternatives are unlikely to be significant is therefore unsupported by any disclosed comparative assessment.
143. This evidential gap is material. EN-1 paragraph 4.3.15 requires the Environmental Statement to explain the principal reasons for the Applicant’s choice between the reasonable alternatives studied, taking account of their environmental effects. Paragraphs 5.3.4 and 5.3.5 require the GHG assessment to explain the steps taken to drive down climate impacts and to be used to ensure that emissions are minimised as far as possible. Under paragraphs 5.3.8, the Secretary of State must be satisfied that GHG emissions have been assessed as far as possible ‘at all stages of development’ - which should include optioneering.
144. EN-5 further confirms that EN-1’s assessment principles and generic impacts apply to electricity networks infrastructure.
145. The ExA cannot properly conclude that GHG emissions were taken into account in selecting between reasonable alternatives, or that the chosen approach minimises GHG emissions as far as possible. No weight should therefore be placed upon the mere existence of an undisclosed Cost Book process as evidence of the comparative GHG merits of the preferred solution. Unless adequate comparative evidence is provided, the Secretary of State cannot be satisfied that the relevant requirements of EN-1 have been met.
146. **Hedges/‘where practicable’.** We remain concerned about the use of ‘where practicable’ in relation to any elements of the DCO, but in particular with regard to hedge and tree work during bird nesting season. This has been demonstrated to put birds at risk in the Bramford to Twinstead project.
147. **Moths.** Four Spotted Moths have been trapped in July 2026 in the field at Feeringbury Manor that the pylons will go through and additionally a further one in June 2026 the other side but close to the pylon route. The moth is officially **Nationally Threatened** in the Butterfly Conservation 2019 paper (attached) and described as **Scarce and Vulnerable** species by UK Moths.
148. **Nature Opportunity maps** – we see no evidence that the numerous issues raised by a large number of respondents about the nature opportunities maps have been resolved. As previously stated, they cannot be relied upon. EN-5 2.10.6 refers to such nature opportunity schemes, but those presented for Examination cannot be accepted as appropriate evidence. We note that EN-1 states: “5.4.53 The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons [\[footnote 163\]](#) and a suitable compensation strategy exists.” It does not.
149. **Water.** Without evidence of the amount of water required for the Project/water sources/a Water Resource Assessment, it cannot be determined that the Project will not cause harm/significant adverse impacts under the Water Framework Directive, the Water Industry Act 1991 or National Policy Statement EN-1 paragraphs 5.16.1, 5.16.2, 5.16.10 and 4.3.3¹⁴. The Consent Order cannot be granted and this decision cannot be passed to the LPAs post consent

¹⁴ EN-1 also requires (5.16.12) the Secretary of Secretary of State to “give impacts on the water environment more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017”, and to consider (5.16.13) duties under other legislation including duties under the Environment Act 2021 in relation to environmental targets and have regard to the policies set out in the government’s Environmental Improvement Plan.

order, because the risks are regional, significant and cumulative.

150. **White Clawed Crayfish.** We can have little confidence in the Applicant's interest in protecting this species. Firstly, the Applicant was unaware of the WCC colony on the River Tas. Secondly, the Applicant claimed that only one tributary of the Tas was affected by the Project, when four are. Finally, the Applicant stated that on-site pollution controls would be in place, but we have not seen the details of these and how they will protect this very sensitive, endangered species. The Project is in breach of the Wildlife & Countryside Act 1981.

Miscellaneous

Colne Valley

151. The ExA has seen the evidence presented by two independent landscape consultants of the particular harm to the Colne Valley. We do not repeat this here.
152. The Applicant has not considered alternative routings that avoid the Colne Valley, or underground or subsea alternatives as required in EN-5 2.9.14¹⁵ and EN-5 2.11.6¹⁶
153. We disagree with the Applicant's response (in 8.4.16) to our appraisal of the characteristics of a National Landscape and how these apply to the Colne Valley. The Colne Valley displays a coherent and substantially intact river-valley landscape with comparable landform, landscape structure, scenic composition, historic continuity, ecological connectivity and perceptual qualities. Specifically, we dispute the following:
154. The Applicant says that the Colne Valley is disturbed by roads and rail. So is the Dedham Vale (A12, A134, Mainline Rail)
155. The CV's valley floor is described as narrow. It is not.
156. We have submitted evidence of heritage associations with the area.
157. Land uses are similar in the two valleys.

Climate Change

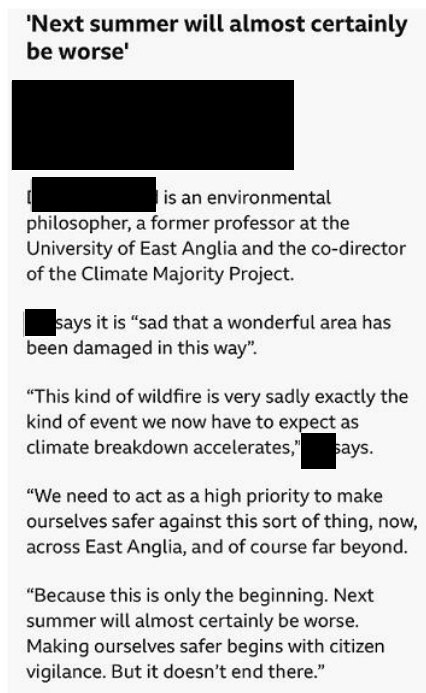
158. While we are aware that climate change has been scoped out, we believe that, in accordance with EN-1 4.10.2, 4.10.8, 4.10.9 and 4.10.10, the Applicant should have assessed the impact on and from their project from a range of climate change scenarios. However, it has not yet demonstrated that the Norwich-to-Tilbury project has been subjected to the structured, project-specific, whole-life climate-risk and adaptation-pathways process envisaged by the EN-1 or the relevant British Standards.
159. Flood risk is not the only relevant manifestation of climate change; as seen this summer in Europe, Wales, Scotland and Suffolk, as we are warned of a new normal of forest fires. The Observer reported on 2 August that 717 wildfires have hit England and Wales this year. Yet we

¹⁵ "Where the nature or proposed route of an overhead line will likely result in particularly significant landscape and visual impacts, as would be assessed through landscape, seascape and visual impact assessment, the applicant should demonstrate that they have given due consideration to the costs and benefits of feasible alternatives to the overhead line. This could include – where appropriate – re-routing, underground or subsea cables and the feasibility e.g. in cost, engineering or environmental terms of these."

¹⁶ Away from these protected landscapes and in locations where there is a high potential for widespread and significant adverse landscape and/or visual impacts, the Secretary of State should be satisfied that the applicant has provided evidence to support a decision on whether undergrounding is or is not appropriate, having considered this on a case-by-case basis, weighing the considerations in paragraph 2.9.24 above.

see no assessment of scenarios relating to heat, strong winds, and fires, or how those scenarios change with different technologies, and we have submitted concerns about assessment of flood risk throughout the examination. NPS EN-5 also references the importance of understanding climate risks like these.

160. Paragraph 2.4.6 in NEW EN-1 also makes it clear that the Clean Power 2030 Action Plan sets the need to maintain resilience, including to “severe weather events which are expected to increase in intensity and frequency as a result of climate change”. The Applicant has failed to present evidence.
161. In particular, (4.10.9) “the ES should set out how the proposal will take account of the projected impacts of climate change, using government guidance and industry standard benchmarks such as the Climate Change Allowances for Flood Risk Assessments, Climate Impacts Tool), and British Standards for climate change adaptation, in accordance with the EIA Regulations.” This is backed up in NPS EN-5: “2.3.3 Section 4.10 of EN-1 advises that the resilience of the project to the effects of climate change must be assessed in the Environmental Statement (ES) accompanying an application”. We have seen none of the above in this DCO Examination.
162. As we write this, a 200-hectare fire is raging out of control on the Suffolk coast. [REDACTED], a former climate professor, notes that next summer will almost certainly be worse.



163. Research demonstrates that climate change drives the risk of electricity-triggered forest fires, and that wetter winter climates contribute to power tower collapse¹⁷. While it has not been assessed by the Applicant, it is obvious that overhead lines are at great risk from wildfires, and wildfires are known to be started by overhead lines. It is irresponsible in this 'new normal' to build new overhead lines.
164. Given the operational lives of proposed transmission assets, it would also be wise to test against Met Office AMOC-collapse and weakening scenarios, such that even drier summers may lead to increased fire risk, and colder winters with more extreme weather may put additional stress on overhead lines.
165. Climate change is here, and according to [REDACTED] in The Times (3/8/26), "Until

¹⁷ [REDACTED]

we get our carbon emissions down things will continue to get much, much worse.”. The Applicant needs to model it.

Evidence base: late requests for ecological, heritage and landscape survey access

166. The Applicant has, a week before the final deadline of the examination, sought access to the majority of a landowner’s estate in Essex for surveys covering bats, badgers, otters, birds, watercourses, trees, and heritage/landscape visual assessment. The estate includes a SSSI.
167. This timing raises a fundamental question as to whether the Examining Authority and the Secretary of State can be satisfied, on the evidence now before them, that the statutory tests applicable to this application have been met. The Rochdale Envelope approach permits a worst-case methodology where design parameters remain flexible, but it was never intended as a substitute for baseline survey data that simply does not exist. PINS Advice Note 9 (withdrawn on 30 July), new guidance on 30 July, state that worst case scenarios must be assessed. The absence of survey information should not be used to lower the statutory requirements that apply. A generic worst-case label applied at the eleventh hour, over land the Applicant has not yet surveyed, cannot properly be described as evidence-based. We have not seen a worst-case assessment for the estate, and we ask how many other land holdings this affects. The Applicant has had over four years to carry out surveys. It is not acceptable to commence them as the DCO Examination ends.
168. This is of particular concern for bats and otters, both European Protected Species under the Conservation of Habitats and Species Regulations 2017. The competent authority must be satisfied there is no reasonable scientific doubt as to the absence of adverse effect before consent is granted, on the basis of complete, precise and definitive findings. That standard cannot be met by assumption alone where no field survey has taken place. The Applicant cannot discharge the Habitats Regulations and EIA Regulations duties in respect of this land in the time remaining. It is our view that consent should not be recommended in respect of the affected areas (or any other area with such late surveys) until adequate, evidence-based survey data is obtained and has been subject to proper scrutiny by interested parties and statutory consultees.

Good Design

169. EN-1 and EN-5 both require good design. EN-1 4.7.5: “To ensure good design is embedded within the project development, a project board level design champion could be appointed, and a representative design panel used...” This has not been done, nor has the Applicant asked the Design Council for a review as per 4.7.8. 4.7.10 states that the “Secretary of State needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable, and adaptable (including taking account of natural hazards such as flooding) as they can be.” As we point out above, the Secretary of State cannot be confident about flood risk or adaptability to climate change. In EN-5, 2.4.2-2.4.4 cover the importance of secure infrastructure, and we have demonstrated above that the Applicant remains in conflict with the NPS’s when it comes to defence and security.
170. PEA maintains its stance on the importance of following the National Infrastructure Commission (NIC) “Design Principles for National Infrastructure”¹⁸. This is highlighted in PEA submission “Appendix D The Requirement for Good Design” [REP3-132] and [REP5-265], which provide further details including, for instance, examples of similar organisations who have adopted these principles. Some fundamental points are highlighted here:
171. The National Infrastructure Commission (NIC) was set-up with the objective that it “provides the government with impartial, expert advice on major long-term infrastructure challenges”¹⁹.

¹⁸ <https://majorprojects.org/wp-content/uploads/2024/10/NIC-Design-Principles.pdf>

¹⁹ <https://www.gov.uk/government/organisations/national-infrastructure-commission>

172. The NIC *“established an expert design group because we believe the UK needs renewed ambition for the quality of our infrastructure”²⁰*. It states *“We are moving into a decade where many big infrastructure projects will begin. Their legacy will be defined by the quality of their design. We owe it to present and future generations to make them the best they can be. These principles are here to show the way”*.
173. The recommendations from the “Design Principles for National Infrastructure” report are stated as *“the start for improving the quality of design of national infrastructure. Design champions and design panels will take forward the spirit of the design principles. They will push for designs that create great places, respond to what people need and want, mitigate society’s climate impact and provide good value. They will do this by appreciating the wider context, engaging meaningfully and continually measuring and improving”²¹*.
174. A key requirement is the undertaking of independent design reviews. The need to be *“independent”* is one of the 10 fundamental design review principles endorsed by both the Design Council²² and Planning Inspectorate²³. The Design Council highlights that: *“It is conducted by people who are unconnected with the scheme’s promoters and decision makers, and it ensures that conflicts of interest do not arise”*.
175. The Design Council’s report *“Design Review: Principles and Practice”²⁴* states: *“Design Review is an independent and impartial evaluation process in which a panel of experts on the built environment assess the design of a proposal”... “...gives decision makers the confidence and information to support innovative, high quality designs that meet the needs of their communities and customers, and to resist poorly designed schemes.”*
176. The NIC guidance was clear in that *“design review panels should be set up for every nationally significant infrastructure project”*.
177. The NIC report was published in February 2020 and therefore significantly in advance of the Norwich to Tilbury project inception in 2022.
178. There was therefore sufficient time for the advice to be adopted for the Norwich to Tilbury project before it became embedded in the 2023 Overarching National Policy Statement for Energy (EN-1)²⁵ and in the associated “Energy National Policy Statements, Appraisal of Sustainability - Appendices Supporting Evidence Volume I”.
179. As discussed in [REP3-132], in various pre-application meetings, the Planning Inspectorate provided Section 51 (s51) advice to the Applicant that related to the NIC guidance on issues such as the use of design champions and design panels. For example, at the s51 meeting with the Planning Inspectorate held on 30 January 2023, the Applicant was reminded of the NIC guidance,

²⁰ “climate, people, places, value” “DESIGN PRINCIPLES FOR NATIONAL INFRASTRUCTURE”

<https://majorprojects.org/wp-content/uploads/2024/10/NIC-Design-Principles.pdf>

²¹ <https://majorprojects.org/wp-content/uploads/2024/10/NIC-Design-Principles.pdf>

²²

https://www.designcouncil.org.uk/fileadmin/uploads/dc/Documents/Design%2520Review_Principles%2520and%2520Practice_May2019.pdf

²³

https://assets.publishing.service.gov.uk/media/67603830cfbf84c3b2bcfa6d/Achieving_good_design_in_Nationally_Significant_Infrastructure_Projects.pdf

²⁴

https://www.designcouncil.org.uk/fileadmin/uploads/dc/Documents/Design%2520Review_Principles%2520and%2520Practice_May2019.pdf

²⁵ The 2023 and 2025 versions of EN-1 state: “Design principles should take into account any national guidance on infrastructure design, this could include for example the Design Principles for National Infrastructure published by the National Infrastructure Commission, the National Design Guide and National Model Design Code, as well as any local design policies and standards.”

including that relating to design champions and design panels²⁶. Similar advice was provided by the Planning Inspectorate at two further pre-application meetings. At a further s51 meeting held on 30 June 2025 the Inspectorate asked: “...whether the project had been subject of an independent design review, to which the applicant confirmed it had not, providing its reasons for this”²⁷.

180. It is unacceptable that the Applicant has ignored this critical guidance, which is referenced in both the 2023 and 2025 versions of EN-1, particularly considering the scale of the Norwich to Tilbury proposal and the duration of the resulting impact. With refurbishment the life of the infrastructure could be more than 100 years²⁸[11]. The impact is likely to extend significantly beyond this. This therefore warrants best practice in all areas, including full adherence with the NIC guidance.
181. While design reviews can be undertaken at the end of a project this is detrimental to the outcome as the impact will be very limited: key design decisions will have already been made. As this relates to all aspects to the design and not, for example, purely the aesthetics, design reviews need to take place at the formative stages from inception to completion to properly inform the design as it progresses.
182. The Applicant did not assign a design champion or arrange for independent design reviews to be held throughout the project development stages. Ignoring such key guidance excludes vital sources of external input and impartiality from the design process.
183. Independent design reviews can bring a diverse range of skills, expertise and perspectives to all stages of project’s development cycle, with significant benefits to the outcome. The process can also provide visibility and transparency. It can be used to assist in building meaningful and constructive community engagement and thus help in establishing confidence and acceptance. It is after all the communities, who, as part of their daily lives, will extensively interact with and ultimately pay for the resulting infrastructure. Independent design reviews simply represent best practice in achieving good design.

National Landscape

184. In a National Landscape, EN-1 requires any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated to be set out. EN-1 5.10.34 states that the aim should be to avoid harming the purposes of the designation or to minimise adverse effects on designated landscapes. The Secretary of State should consider (5.10.37) whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, and this needs to be done in the light of the duty required of decision makers in s.85 CROW Act 2000 as amended, see further below .
185. We stand by the submission by Richard Buxton, REP4 358. Harm to the Dedham Vale could, and should, have been avoided (e.g. by HVDC undergrounding, offshore coordination, cable ploughing, HTLS conductors), and the alternatives should have been assessed and presented for consultation.
186. We remind the ExA of the statutory duty: section 85 CROW Act 2000, which, as amended by the Levelling-up and Regeneration 2024, provides: “In exercising or performing any functions in

²⁶ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-M-51216755-East%20Anglia%20Green%20Project%20Update%20Meeting%2030-01-23.pdf>

²⁷ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-000144-EN020027-000022-Pre-application%20s51%20Advice%20Log%20template%20-%20Norwich%20to%20Tilbury%2030%20June%202025.pdf>

²⁸ “We expect our towers to last in excess of 100 years (typically two conductor lifetimes, depending on environmental factors)” [REDACTED]

relation to, or so as to affect, land in an area of outstanding natural beauty [now National Landscape] in England, a relevant authority ... must seek to further the purpose of conserving and enhancing the natural beauty of the area of outstanding natural beauty.”

RVAA

187. The Applicant points to document 6.13.A4 (which confirms that measurements should have been from the curtilage, not the centre of the property), although this document has been superseded by several documents (REP4-148 through to 156) and these have been also been superseded by others (REP5-126 through to 134). As previously stated, it has taken members of the public to point out the errors and we have no way of telling if there remain properties with measurements from the centre instead of the curtilage.
188. In one example, Whitehead's Farm, Essex, while assessments now do show distances from the curtilage, this appears to be an afterthought. The assessment on a property appears to consider only views from the property itself, not the curtilage, apart from a brief mention of the garden. This is despite PER7-268 (on page 1 Document: 6.13.A4 Environmental Statement Appendix 13.4 Residential Visual Amenity Assessment - Clean Version - Part 1 LI TGN 2/19) defining Residential Visual Amenity as 'the overall quality, experience and nature of views and outlook available to occupants of residential properties, **including views from gardens and domestic curtilage**' The fieldwork at this example property was carried out from a public space and not from the property and the visualisations provided do not show the full extent of the Limits of Deviation.
189. There is no cross-referencing to the Historic Environment Report where Highfields Farmhouse and the other properties mentioned have been considered. The criteria for inclusion in these two reports are different and as a consequence, listed properties where there has been an assessment of high impact from the project are not included in the Residential Visual Amenity Assessment, so we still maintain that this document understates the number of properties highly impacted by the project.

Conclusion and findings sought

190. We thank the panel for their consideration of the issues. Through no fault of their own, a six-month examination is too short for a linear infrastructure project - compared with the amount of time devoted to hearings for relatively small housing developments.
191. Pylons East Anglia supports the urgent reinforcement and decarbonisation of the electricity transmission system. The existence of a national need for new network capacity does not, however, establish that this particular project, technology, route or design should be consented. Nor does urgency displace the statutory duties, National Policy Statement requirements and principles of procedural fairness that govern the decision.
192. For the avoidance of doubt, PEA maintains and relies upon all the representations, evidence, appendices and oral submissions it has made throughout the pre-application process and this Examination, including the Opinions of Lord Banner KC. The fact that a matter is not repeated in this final submission must not be treated as its withdrawal, a concession, or agreement with the Applicant.
193. As a resident-led community group, participating in the examination of the biggest ever DCO has been challenging. We have, by necessity, not been able to focus on every topic and every location along a 180km route. We are concerned that issues we have raised such as the White Clawed Crayfish not discovered by the Applicant; the errors in the RVAA measurements; the mental health issues, the archaeology affected by the project, for example, may only be the tip of the iceberg. Our evidence is not worse case - there may be countless examples of issues we have missed on top of those submitted.

194. PEA submits that, on the evidence presently before the Examination, the Examining Authority cannot properly recommend, and the Secretary of State cannot lawfully grant, development consent for the Project. In particular, the decision-maker cannot be satisfied that:
195. **The gateway requirements for the Critical National Priority presumptions have been met.** The Applicant has not demonstrated compliance with the relevant National Policy Statements, proper application of the mitigation hierarchy, or that the substantial residual impacts of the Project are genuinely unavoidable. Several unresolved impacts also fall within the express exceptions to the CNP presumptions, including human health and public safety, flood risk, defence and security, and impacts upon irreplaceable habitats. PEA's submission throughout has been that CNP status does not exempt N2T from its legal and policy obligations.
196. **The Environmental Statement contains a lawful and adequate assessment of reasonable alternatives.** The strategic choice of a predominantly overhead HVAC solution and preferred alignment was made before consultation. The alternatives assessment relies substantially upon work undertaken before the consultations, before the NESO Anglia Study and before material subsequent evidence became available. It does not provide a current, transparent and consistently based comparison of the environmental effects of the proposed development against reasonable technological, routing and construction alternatives.
197. **The consultation process was undertaken while the fundamental proposal remained at a genuinely formative stage.** The public was principally consulted upon the detailed siting of an already-selected technological solution. Credible alternatives were not presented with sufficient information to permit intelligent consideration and response, and the Applicant has not demonstrated that representations seeking materially different solutions were conscientiously taken into account.
198. **The necessary environmental and technical conclusions can safely be reached.** Important matters concerning the historic environment, flood risk, ecology, protected species, archaeology, water resources, human health, equality impacts, aviation safety, security, climate resilience and other environmental effects remain unresolved, unsupported by complete baseline evidence, or dependent upon future assessment.
199. **The adverse effects of the Project have been avoided and minimised as required.** The Applicant has repeatedly treated mitigation and compensation as substitutes for avoiding harm through the selection of a less damaging technology, route or construction method. That reverses the mitigation hierarchy.
200. **The need and urgency advanced for this particular scheme have been demonstrated.** General national need does not answer the disputed evidence concerning the scale and timing of the East Anglia boundary requirement, delays to generation connections, or the availability of less harmful ways of meeting the underlying transmission need.
201. **That Treasury Green Book guidance has been followed.** This is not just a procedural technicality. It enables quantitative comparison of impacts of projects and alternatives.
202. **That sufficient information has been presented to landowners to justify compulsory purchase.** It is astonishing, and unacceptable, that after four years of consultations and six months of examinations that at Deadline 8 land agents are still highlighting numerous issues relating to safety, heads of terms and other farming/land ownership matters.
203. These are not minor matters of detailed design which can simply be left to requirements, discharge processes or later agreement with local authorities. They concern the adequacy of the environmental information, the lawfulness of the consultation and alternatives process, the selection of the fundamental technology and route, and the ability of the decision-maker to discharge statutory duties at the point at which development consent is determined. Post-

consent processes cannot retrospectively provide the assessment, consultation or comparative consideration that should have informed the application and the Examination.

204. PEA therefore asks the Examining Authority:

- to recommend that development consent be refused; and
- to identify expressly in its Recommendation Report its findings upon each of the principal legal and evidential matters raised by PEA.

205. PEA asks the Secretary of State to refuse development consent. Should the Secretary of State nevertheless be minded to grant consent, the decision must address PEA's principal submissions individually and provide clear and intelligible reasons identifying:

- the relevant statutory or policy test applied;
- the evidence relied upon;
- how the unresolved evidential deficiencies have been overcome;
- why the contrary evidence and reasonable alternatives have been rejected; and
- why the outstanding matters are considered capable of lawful resolution after consent.

206. A decision to grant development consent without resolving and giving adequate reasons upon these matters would be made in the knowledge that PEA contends that the decision would be unlawful.

207. The issue is not whether the electricity network must be reinforced. It must. The issue is whether urgency permits a predetermined, inadequately assessed and avoidably damaging scheme to be consented without compliance with the law and the National Policy Statements. **It does not.**

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Appendix A Flood Risk

Deadline 8 note

1. This picks up from the Applicant's response at section E.4 of 8.4.16 [REP7-4373] and sets out where the Water Environment is going into Deadline 8.
2. Since Deadline 5 the Applicant has re-issued the DCO (Rev G), the CoCP (Rev G), DASSI (Rev E), the Drainage Strategy (Rev D), the FWEP (Rev C) and the Schedule of Changes (Rev F). Most of those revisions don't touch the matters still recorded as Not Agreed at Deadline 7.

What's changed since Deadline 6

3. The following matters have moved to Agreed or been closed on wording since Deadline 6:
 - Environment Agency [REP6-3810, 5.9.15 Rev E signed] — all 24 items in the hydrology section and all 9 in the contaminated land / groundwater section now Agreed.
 - Suffolk County Council [REP7-4252, 5.9.2 Rev E signed] — all hydrology items Agreed.
 - Thurrock Council [REP7-4248, 5.9.4 Rev E final] — all 13 hydrology items Agreed.
 - CoCP W07 wording — the revision we asked for at Deadline 5 ("ensuring the most vulnerable components are placed in the areas at lowest risk") was provided in Rev E and has held through Rev F and Rev G. Closed.

- DCO Requirement 4 EA consultee — the change is in DCO Rev E [REP5-060] and retained through Rev F and Rev G [REP7-4377]. Closed.
4. **Norfolk and Essex – Change in Status.** Two of the four LLFAs have moved substantive Water Environment matters from “Under Discussion” at Deadline 5 to “Not Agreed” at signed Deadline 7. The Applicant’s statement in 8.4.16 that the Deadline 7 SoCGs record all hydrology, land drainage and flood risk matters as Agreed isn’t true for these two.
 5. **Norfolk — 11 of 13 items Not Agreed.** Norfolk CC [REP7-4254, 5.9.1 Rev E signed]: 11 of 13 items in section 3.7 are Not Agreed. At Deadline 5 the same 11 were Under Discussion. The only ones still Agreed are 3.7.2 (study area) and 3.7.4 (assessment methodology). Everything substantive is Not Agreed:
 - 3.7.3 Data sources — Norfolk’s point is that the Drainage Strategy (even at Rev D [REP7-4371]) doesn’t contain the ground investigation data needed to inform the assessment.
 - 3.7.5 Key parameters and 3.7.6 Baseline conditions.
 - 3.7.7–3.7.9 Mitigation (embedded, standard, additional). NCC’s recorded position: “no ability to judge the sufficiency of mitigation measures because basic information has not been included with the application”, and it “cannot be confident that the proposal does not increase flood risk elsewhere, or that mitigation which complies with EN-1 can be delivered within the footprint of the development”.
 - 3.7.10 Construction effects and 3.7.11 Operational effects. NCC calls out particular concern about construction effects “due to the large area of impermeable material proposed for use in haul roads and the fact that no investigations have been done to demonstrate the viability of drainage solutions”, and flags it as “a serious disagreement” in its ISH4 post-hearing submission [REP6-158].
 - 3.7.12 Outline CoCP (including FWEP).
 - 3.7.13 The FRA itself. Norfolk’s recorded position is that surface water flooding is inadequately considered and the FRA “lacks the site-specific modelling, detailed drainage design annexes and consistent application of stated methodologies”.
 6. Norfolk also records item 3.13.4 (DCO wording) as Under Discussion. Norfolk wants a surface water drainage or management plan secured under the DCO Requirements. The Applicant argues GG22 in the CoCP is enough. That disparity hasn’t been closed.
 7. **Essex — 9 of 12 items Not Agreed.** Essex CC [REP7-4250, 5.9.3 Rev F signed]: 9 of 12 items in section 3.8 are Not Agreed. At Deadline 5 the same items were Under Discussion. The Applicant’s characterisation of Essex as having “no significant concerns” in 8.4.16 doesn’t match what’s in the signed SoCG.
 8. Items now Agreed at Deadline 7: 3.8.2 (study area), 3.8.4 (methodology), and 3.8.10 (construction effects — the Applicant updated the CC allowances in the Drainage Strategy and Essex accepted that).
 9. Items Not Agreed at Deadline 7: 3.8.3 (data sources), 3.8.5 (key parameters), 3.8.6 (baseline), 3.8.7 (embedded mitigation), 3.8.8 (standard mitigation), 3.8.9 (additional mitigation), 3.8.11 (operational effects), 3.8.12 (Outline CoCP/FWEP), and 3.8.13 (FRA). The concerns are specific:
 - Tilbury North Substation culvert (3.8.3, 3.8.6, 3.8.11) — ECC records that “details for flow rates and dimensions for a culvert proposed under a construction laydown area associated with the proposed Tilbury North Substation have not been provided. It is therefore impossible to assess whether the capacity of the proposed culvert is sufficient to manage the predicted peak flow.”

- Discharge limits in the FRA (3.8.13) — “The submitted FRA contains no specified discharge limits.”
- Surface water runoff rates (3.8.12) — ECC wants runoff “restricted to 1-year greenfield rates” and “network modelling... for 100 years plus climate change allowance”.
- Certainty on 1 in 30 and 1 in 100 rainfall events (3.8.12) — the application doesn’t provide it.

The Applicant’s Deadline 6–7 revisions don’t address the concerns. See Table 1 below:

Concern recorded as Not Agreed	Applicant’s latest revision that was meant to address it	Addressed?
Ground investigation data (Norfolk 3.7.3; Essex 3.8.5, 3.8.6)	Drainage Strategy Rev D [REP7-4371]. Paragraph 3.3.1 still reads “Intrusive site surveys have not been undertaken for this drainage strategy”. Ground investigation is described as “currently being undertaken”.	No
Tilbury North Substation culvert hydraulic calcs (Essex 3.8.3, 3.8.6, 3.8.11, 3.8.13)	Drainage Strategy Rev D and CoCP Rev G [REP7-4593]. Commitment W08 defers culvert design to the Main Works Contractor. No hydraulic calcs on the record.	No
Discharge limits in the FRA (Essex 3.8.13)	7.9 Flood Risk Assessment [APP-331]. Not updated at any deadline. No specified discharge limits.	No
Exception Test reasoning for River Stour link pillars in FZ3 (Applicant’s own reference in 8.4.13.1)	DASSI Rev E [REP7-4369], twice revised since we made this point at Deadline 6. Section 5.6 still runs six sub-sections — Siting, Technical Requirements, Boundary Treatment, Access, Surface Treatment, External Appearance — plus an early-workshop paragraph. Nothing on flood resilience, Exception Test or FZ3.	No
Norfolk mitigation concerns (3.7.7, 3.7.8, 3.7.9)	Drainage Strategy Rev D and CoCP Rev G. NCC’s position at Deadline 7: “no ability to judge the sufficiency of mitigation measures because basic information has not been included with the application”.	No
Site-specific fluvial modelling for the Tas and Wid	FWEP Rev C [REP7-4589]. Table 2.2 still uses NaFRA2 for these watercourses. The footnote still reads “Defined using the National Flood Risk Assessment 2 dataset as there is no available data from EA flood models for these watercourses at these locations”.	No
SWMP secured under DCO Requirements (Norfolk 3.13.4)	DCO Rev G [REP7-4377]. No SWMP Requirement added. Applicant still points to GG22 in the CoCP.	No

1-year greenfield rates and 100yr + CC network modelling (Essex 3.8.12)	Drainage Strategy Rev D. Not committed at Rev D. Design detail deferred to Main Works Contractor via GG22.	No
Climate change allowances (Essex 3.8.10)	Drainage Strategy Rev D. Updated. Essex accepted.	Yes

Table 1 — Not Agreed technical concerns vs the Applicant's Deadline 6–7 revisions

10. The Not Agreed items above come down to a small set of specific technical asks. We've reviewed the Applicant's Deadline 6–7 revisions and mapped them against those asks. Table 1 sets out what we found. Eight of nine technical concerns formally recorded as Not Agreed at Deadline 7 haven't been addressed by any Applicant revision issued since Deadline 5.

Where we are at Deadline 8

11. Norfolk: 11 of 13 hydrology items Not Agreed at signed Deadline 7 SoCG. Includes the FRA. Position has hardened since Deadline 5.
12. Essex: 9 of 12 hydrology items Not Agreed at signed Deadline 7 SoCG. Includes the FRA and Tilbury North culvert. Position has hardened since Deadline 5.
13. The Applicant's Deadline 6–7 revisions to the DCO, CoCP, DASSI, Drainage Strategy, FWEP and Schedule of Changes don't address eight of the nine specific technical concerns (Table 1). Going into Deadline 8, the record still doesn't contain the ground investigation data, the Tilbury North culvert calcs, the FRA discharge limits, the Exception Test reasoning for FZ3 link pillars, or the site-specific fluvial modelling for the Tas and Wid.
14. NPS EN-1 paragraph 5.8.36 requires the Secretary of State to be satisfied of — among other things — an appropriate FRA. That test isn't met on the current record when two of the four LLFAs whose areas cover most of the route continue formally to record the FRA and the Drainage Strategy as Not Agreed at signed Deadline 7.

Appendix B – Treasury Green Book

PEA's Response to: Annex A Legal Review and Rebuttal of Treasury Greenbook Case Arguments [REP7-481]

1. In respect of the Opinion from the Applicant relating to the HM Treasury Green Book (Green Book), PEA refers the Examining Authority to the corresponding Opinion from Charles Banner KC dated 4th July 2023.
2. There are several points of clarification that PEA would like to highlight in relation to this latest Opinion from the Applicant, relating to:
 - The applicability of the Green Book
 - Previous use of the Green Book in the planning system
 - Planning policy and the Green Book
 - Application of the Green Book, EN-1
 - PEA Green Book analysis

The Applicability of the Green Book

3. The Applicant has focussed on the role of the Green Book in the making and formulating of “policy” (paragraphs 2.1, 2.6, 2.9, 2.11, 3.4, 8.2 and 8.3).
4. The scope is however broader than stated by the Applicant as it also encompasses “projects”. Despite reference in the Opinion to “projects” in two quotes from the Green Book, the Applicant is silent on the applicability.
5. In contrast, the Opinion from Charles Banner KC is clear on the applicability of the Treasury Green Book to projects as well as policies:
6. *“In the present context, the only tenable interpretation of the Green Book is that it applies to the consideration of projects, and not just policies. On more than one occasion this is clearly expressed to be the intended scope”²⁹.*
7. The “Scope of Green Book Guidance” from the Green Book, as quoted in the Charles Banner KC Opinion, specifically refers to “major projects”. The Norwich to Tilbury project would clearly fit in this category.
8. The Government’s Green Book website says it “is not just for economists but for all those involved in spending proposals. This includes those working in policy, analysis, procurement, finance and project delivery. It also states: “The Green Book also refers to ‘proposals’. This term refers generically to a developing plan for a project, programme, portfolio, policy or other potential application of the Green Book”, and “It is mandatory for UK government departments and arm’s length bodies to follow the Green Book and its accompanying business case guidance when developing proposals that involve significant public spending.”
9. Paragraph 3.8 of the Applicant’s response states: *“The 2026 Green Book addresses “practitioners” in government. These are quite obviously public servants appraising public spending decisions; they are not private regulated businesses making DCO applications”*. PEA submission “Comments on any further information or submissions received by deadline 1 – Appendix G - Treasury Green Book” [REP2-056], discusses how both the project and the funds are public.
10. This is plainly relevant to National Grid:
 - The applicant is publicly regulated (not privately as it states)
 - That regulator, Ofgem, is a government organisation
 - The applicant is authorised by Ofgem to recover mandatory charges on electricity bills
 - Electricity is an essential service delivered through a government regulator
 - It is therefore a public resource, and the supply of electricity (especially, the transmission network) have strong public-interest and natural-monopoly characteristics. The Applicant is delivering a public service function.
 - The Applicant has special powers e.g. Compulsory Purchase - it is a Statutory Undertaker. As per the Fish Legal judgement (1054 Fish Legal and another v Information Commissioner and others 2014, before the Court of Justice) cited by the Applicant, “whether the water companies were vested with special powers beyond those which resulted from the normal rules applicable in relations between persons governed by private law.”
 - The Applicant is not autonomous. As per the Fish Legal judgment, “the companies concerned were to be classified as “public authorities” by virtue of art.2(2)(c) if they did not determine in a genuinely autonomous manner the way in which they provided their services”.

Previous use of the Green Book in the planning system

²⁹ “East Anglia Pylons 4July2023”

11. [REDACTED] is not correct that planning decisions do not take account of the Green Book. The following are just some examples which counter the assertion that “no DCO decision made to date has factored in the Green Book guidance as a material consideration”:
12. In the Morecambe Offshore Windfarm Generation Assets July 2025 recommendation report³⁰, the ExA expressly examined a GHG scenario based on the DESNZ Green Book supplementary guidance and its long-run marginal electricity-emission factors. The ExA discussed both the strengths and uncertainties of the Green Book assumptions before reaching its conclusion on the project’s GHG benefits.
13. South Hook Combined Heat and Power Plant. The ExA³¹ used the Treasury Green Book supplementary guidance on the valuation of energy use and GHG emissions when considering future carbon prices and the economic feasibility of carbon capture and storage.
14. “is compliant with, both the HM Treasury Green Book guidance” (A1 Morpeth to Ellingham — Secretary of State’s decision letter³²).
15. “A business case has been prepared for the Proposed Development in line with HM Treasury Green Book”, Inspectors’ recommendation³³, A303 Amesbury to Berwick Down — Stonehenge
16. In the case of the East Midlands Gateway Rail Freight Interchange, the inspector did not accept that private investment in the works negated the need for Green Book compliance³⁴.
17. Not only that, the planning system has, in fact, relied on the Treasury Green Book in prior decision-making, in the Strategic Local Plan for the North Essex Garden Communities (Inspector’s decision letter submitted to the Examination as REP2-057).
18. Furthermore, The Heathrow Expansion Appraisal provides a direct comparison. Although Heathrow expansion is intended to be privately financed and its costs recovered from airport users, the Government has applied the Green Book on the basis that economic costs must be assessed “whoever pays”. Private financing and user charging therefore do not remove a nationally significant project from Green Book appraisal where government or a public regulator is making the relevant strategic decision.
19. Finally, the Green Book has already featured in this DCO Examination. In its first written questions, the Norwich to Tilbury ExA asked the Applicant how its compulsory-acquisition and compensation cost estimate compared with: “the expectations of the Treasury Green Book for estimates at this stage of design development”.

Planning Policy and the Green Book

20. The 2023 version of the Appraisal of Sustainability for the National Policy Statements for Energy also refers to “*Alignment with HM Treasury Green Book principles*” when “*conducting strategic options appraisal*”. Note that it is aimed at decision makers and its use by ‘all’ is encouraged:

³⁰ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010121-000382-Morecambe%20Offshore%20Windfarm%20Generation%20Assets%20Report%20%26%20Appendices%20A%20B%20C%20D%20E.pdf>

³¹ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN010054-001067-Examining%20Authority%27s%20Report%20of%20Findings%20and%20Conclusions%20for%20the%20South%20Hook%20Combined%20Heat%20and%20Power%20Station%2C%20dated%2023%20July%202014.pdf>

³² <https://nsip-documents.planninginspectorate.gov.uk/published-documents/TR010059-002170-A1>

³³ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/TR010025-002181-STON%20E2%80%93%20Final%20Recommendation%20Report.pdf%20Decision%20Letter%20-%20A1%20DCO%20240524.pdf>

³⁴ <https://nsip-documents.planninginspectorate.gov.uk/published-documents/TR050002-001293-Examining%20Authority%27s%20report%20and%20recommendation%20to%20the%20Secretary%20of%20State%20for%20Transport.pdf>

“consideration of HM Treasury Green Book approaches when conducting strategic options appraisal. While this guidance is aimed primarily at public servants and decision makers, its use by all would help ensure that development proposals are approached in a holistic way that optimises the social / public value and will help ensure a joined up approach to development.”

21. This is highly relevant because the most compelling use of the Green Book on the Norwich to Tilbury project is for the balanced analysis of alternatives for best outcomes.
22. The 2025 version of the Appraisal of Sustainability for the National Policy Statements for Energy continues the theme set by the 2023 AoS. It states for example:

*“Updated EN-1 continues to state that proposals should consider and seek to provide improvements to natural capital and ecosystem services (wider environmental net gain) when considering how to achieve biodiversity net gain. This would be in keeping with the requirements of Clean Power 2030. Considerations of biodiversity in updated EN-1 also continue to recognise that the potential impacts of climate change on biodiversity mean that the two policy considerations are intrinsically linked and that the benefits of nationally significant low carbon energy infrastructure development may also yield benefits for biodiversity interests.”*³⁵

23. The Applicant has acknowledged that Green Book principles inform the wider regulatory and appraisal framework overseen by Ofgem and influence the development of DCO applications. It cannot therefore maintain that those principles are irrelevant while simultaneously relying upon Ofgem’s regulatory process and alleged value for money as justification for its preferred option.
24. Finally, in the absence of Treasury Green Book compliant analysis by NESO (in its Clean Power 2030 report), Ofgem (in its scrutiny of the Applicant’s proposals), or by DESNZ, no Secretary of State can find that planning of N2T (even long before entering the formal, DCO, process) is Green Book compliant.

Application of the Green Book, EN-1

25. A key Green Book tool is the government’s *“Enabling a Natural Capital Approach (ENCA)”* guidance. It is used for measuring natural capital assets and ecosystem services.
26. National Policy Statement *“Overarching National Policy Statement for Energy (EN-1)”* refers to it (paragraph 4.6.16 in both the 2023 and 2025):

“Applicants should make use of available guidance and tools for measuring natural capital assets and ecosystem services, such as the Natural Capital Committee’s ‘How to Do it: natural capital workbook’, the government’s guidance on Enabling a Natural Capital Approach (ENCA), and other tools that aim to enable wider benefits for people and nature”^{36, 37}.

27. [REDACTED] does not address this, and the Applicant has not used ENCA in the N2T DCO.

PEA Green Book analysis

28. Paragraphs 5.1, 8.4 and 8.6 of the Applicant’s Opinion cast doubt on the validity the PEA Green Book analysis, without providing any evidence.
29. PEA has been transparent in its work on the Green Book. The associated report *“Norwich to Tilbury*

³⁵ <https://assets.publishing.service.gov.uk/media/695ccc7053866d6cdff21b44/appraisal-of-sustainability.pdf>

³⁶ <https://assets.publishing.service.gov.uk/media/695e4a71e83db7562d671929/overarching-nps-for-energy-en1-withdrawn.pdf>

³⁷ <https://assets.publishing.service.gov.uk/media/6915ba42bc34c86ce4e6e726/overarching-national-policy-statement-for-energy-en-1-web-accessible.pdf>

*Project Green Book Analysis*³⁸ was issued to Ofgem immediately on completion of the work in August 2025. It was then made generally available and, together with the accompanying spreadsheet, it was included as part of the representation PEA submitted to the Norwich to Tilbury Examination on 26 November 2025. The submission outlined the methodology and the assumptions made. The report itself is heavily referenced with 109 footnotes.

30. The Applicant has not previously engaged with PEA on the analysis, challenged the figures or indeed produced an alternative version of the analysis.
31. In paragraph 5.2 Mr Harris resorts to a straw man argument, challenging the reliability and independence of our figures, yet every figure is backed up by a source or by a clearly explained assumption. We are dismissed as an Interested Campaign not an Independent Expert – yet the Applicant is not an Independent Expert.
32. The PEA analysis demonstrated how through applying Green Book techniques, a very different and much broader view of the harms was arrived at. This is therefore fundamental to *“conducting strategic options appraisal”* as referenced in the 2023 version of the *“Appraisal of Sustainability”* for the National Policy Statements for Energy and discussed earlier. This involves establishing project costs that go significantly beyond those described by the Applicant in paragraphs 4.1, 7.3 and 8.5 (*“A full and transparent cost model underpinning the options appraisal has been available throughout the Examination in the Strategic Options Backcheck and Review [APP-355] and its Appendix D: Economic Appraisal, setting out in auditable detail how option appraisal costs were evaluated across all relevant technology types”*). Yet that breakdown is at a high level, without detail that allows comparison, and without any quantification of externalities. It is precisely for this reason that we created our own detailed analysis.

Conclusion, Green Book

33. In Section 8 of the Applicant’s counsel’s opinion, reasons are summarised for rejecting PEA’s submissions on the applicability of the Green Book. Each of these is wrong: (1) the Applicant is a body subject to the obligations in the Green Book; (2) assuming so, what it requires is obviously highly material in this case; (3) whatever the credibility of PEA’s figures may be, that is irrelevant to the Applicant’s need to apply the Green Book and/or that if they were applied the approach would remain the same; and (4) if the work the Applicant had done was consistent with Green Book requirements, that might obviate overt consideration of them, but it is not.

³⁸ [https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-000805-Norwich%20to%20Tilbury Green%20Book%20Analysis 1.pdf](https://nsip-documents.planninginspectorate.gov.uk/published-documents/EN020027-000805-Norwich%20to%20Tilbury%20Green%20Book%20Analysis%201.pdf)

Appendix C

Norwich to Tilbury Electricity Transmission Project (EN020027)
Final Submission on the Historic Environment on behalf of Pylons East Anglia

*Response to document: 8.4.16- Applicant's Comments on any Further Information or Submissions
Received by Deadline 6*

1. Introduction

1.1 This submission is made on behalf of Pylons East Anglia (“PEA”) as a final response to the Applicant's submissions on the Historic Environment and is intended to assist the Examining Authority (“ExA”) in weighing the evidence on heritage matters at the close of Examination. It draws together concerns raised by PEA throughout the Examination which, notwithstanding repeated engagement, remain unresolved.

1.2 PEA does not repeat every point of detail previously submitted. Instead, this document identifies three matters on which PEA considers the Applicant's position to be unsound:

- (i) the adequacy and evidenced refinement of the heritage methodology in accordance with GPA3;
- (ii) the ongoing and lack of assessment of assets with group value
- (ii) the Applicant's reliance on cross-referencing in place of substantive response.

This is evidenced by a limited number of examples below, but PEA considers it likely that comparable misunderstanding and under-assessment occur repeatedly along the full length of the route. PEA submits that, taken together, these matters demonstrate a systemic under-assessment of heritage harm which the ExA should reflect in its recommendation and in the planning balance under EN-1.

2. Adequacy of the Heritage Methodology

2.1 The Applicant has consistently maintained that its methodology, including its approach to the determination of significance of effect, was discussed with, and agreed by, the relevant Local Planning Authorities and Historic England from an early stage of the Project, and has been refined through that process (Statements of Common Ground, references 5.9.1–5.9.12 and 5.9.14).

2.2 PEA does not accept that this history supports the conclusion the Applicant draws from it. Concerns regarding the methodology were first raised in PEA's objection to the statutory consultation (Fuller Long Objection To ‘National Grid Route Between Norwich and Tilbury’ 2024), prepared with the, approximately two years before this final round of submissions. Notwithstanding the passage of that time, the Applicant has not identified what, in substantive terms, has changed in the methodology as a result. The Applicant has not, when asked, particularised the refinement it claims to have made. PEA's position is that a methodology which has been the subject of sustained, specific and unaddressed criticism for two years cannot properly be described as “agreed” in any meaningful sense, notwithstanding the existence of Statements of Common Ground on other matters.

2.3 PEA further notes that the stakeholders whose agreement the Applicant relies upon – including Historic England – have themselves raised objections to the assessment of individual heritage assets. It is difficult to reconcile the Applicant's characterisation of a broadly agreed methodology with the fact that the body responsible for advising on the historic environment has, in respect of specific assets, reached different conclusions from the Applicant.

2.4 PEA has consistently sought application of the correct approach under Historic England's Good Practice Advice in Planning Note 3, Second Edition ("GPA3"), which the Applicant states it has followed. PEA's objection is not, as the Applicant characterises it, a preference for a different approach, but a contention that the Applicant has not in fact applied GPA3's five-step process with the rigour that the guidance requires, particularly at Steps 2 and 3 (identifying the extent and elements of setting and assessing the contribution setting makes to significance). The examples set out below are illustrative of that broader concern.

A) Curtilage Listed Status of Buildings within the Kenningham Hall Complex

- The Applicant has now acknowledged that buildings within the Kenningham Hall farming complex which pre-date 1948 are curtilage listed. This is a matter of law, not planning judgement: such buildings form part of the listed building under section 1(5) of the Planning (Listed Buildings and Conservation Areas) Act 1990 and attract the statutory protection that follows from that status.
- Notwithstanding that acknowledgement, the Applicant continues to assess these buildings as non-designated heritage assets ("NDHAs") for the purposes of setting assessment, on the basis that no physical works are proposed to them directly. PEA does not accept that this approach is sound. There is no published methodology, procedural guidance or legislative basis of which PEA is aware that permits a curtilage listed building (which carries the full statutory protection of listing) to be assessed, for the purposes of setting and cumulative significance, as though it were merely a non-designated asset. The effect of the Applicant's approach is to afford these buildings a lower tier of protection than the law provides, which in turn understates the harm arising from development within their setting.
- This is not a point of academic interest only. These are, on the evidence before the Examination, the first curtilage listed buildings identified south of the Norwich substation along the route. PEA has not been able to satisfy itself, and the Applicant's methodology does not on its face allow the ExA to be satisfied, that this is an isolated instance rather than symptomatic of a wider failure to identify curtilage listed status elsewhere along the route corridor. PEA invites the ExA to require the Applicant to confirm what steps, if any, have been taken to review the wider baseline for comparable misclassification, and to correct the assessment of harm accordingly.
- The Applicant's assessment concludes that the Project would give rise to Mid Less Than Substantial Harm to Kenningham Hall, on the basis of a moderate change to setting and a medium impact on value. PEA considers this conclusion to be unsupported by the Applicant's own evidence.
- First, as addressed above, the farm outbuildings associated with Kenningham Hall are treated as NDHAs notwithstanding their likely curtilage listed status, and notwithstanding that they are recorded on the first edition Ordnance Survey map of 1882 and are closer to the overhead lines than the main farmhouse. Their significance, and their contribution to the significance of the Hall, has accordingly been understated from the outset.
- Second, the assessment states that the Project would not affect the relationship between the Hall and its associated farm buildings. That conclusion is not supported by the Applicant's own visualisation at Viewpoint HE9, which shows the pylons and overhead lines dominating the view from the farmhouse towards the outbuildings, with the lines appearing to oversail the group. This change in visual relationship cannot, in PEA's opinion, properly be characterised as unaffected. PEA submits that, when properly assessed against this evidence, the appropriate conclusion is a high level of less than substantial harm, and that in the particular circumstances of this asset a finding of substantial harm would not be unreasonable, given the degree to which

the setting would be industrialised and the consequent effect on the way in which the group is experienced and appreciated.

- PEA notes that this pattern – the visual and evidential material pointing to a materially greater impact than the narrative conclusion records – is not confined to Kenningham Hall, and PEA has raised comparable concerns in respect of other assets during the Examination.

3. Assessment of Group Value

3.1 The Applicant states that group value has been considered where consultation responses or listing descriptions identified assets as related, and that this is recorded in the Historic Environment Baseline Report (Revision C) and its Annex C, applying GPA3 Steps 1 to 5. PEA has reviewed that document again in light of the Applicant's response and has been unable to identify a substantive assessment of group value of the kind the Applicant describes.

3.2 Where groups of assets are referenced together in this document, beyond obvious farmstead or estate groups, this appears to be based on geographical markers rather than on historical, functional or associative links and how those links contribute to significance of the assets as a whole.

3.3 PEA has previously raised this concern in relation to Ingatestone Hall, Margaretting Hall and St Mary's Church, linked for centuries through their shared association with the Petre family. The proposed line would physically sever the relationship between these highly significant assets, and yet their interest as a group has not been recognised. PEA believes there are likely to be numerous other examples of churches, manor houses and estate houses with comparable historic and functional relationships which have not been properly assessed as having group value which contributes to their significance and which would be further harmed by the project as a result.

3.4 PEA also notes, by way of a further specific example, that although the hamlet of Little Wenham was correctly identified by the Applicant as a group of listed buildings of high significance, only Little Wenham Castle was taken forward for detailed assessment, on the basis that it alone had a setting extending to the Draft Order Limits. This is notwithstanding that the group as a whole shares that setting, including the Grade I listed Parish Church of St Lawrence and the Grade II* listed threshing barn, which has a historical and functional relationship with the farmland to the north over which the Project would be built.

3.5 PEA submits that this is inconsistent with a proper application of GPA3, which requires the identification of all heritage assets whose experience is capable of being affected by the Project (Step 1), and requires an asset's relationship with other heritage assets to be assessed as part of its setting (Step 2), rather than by isolating a single asset for further assessment on the basis of a subjective judgement as to whether its setting alone is likely to be impacted by the proposed power lines and pylons.

4. Reliance on Cross-Referencing and Repetition of Conclusions

4.1 Throughout the Examination, the Applicant has frequently responded to PEA's specific and evidenced objections by cross-referring to earlier submissions, in particular - 8.4.13.1 Applicant's Response to Pylons East Anglia's Comments on its ExQ1 Responses [REP5-202] - or by repeating that the assessment is considered "proportionate and appropriate". PEA doesn't consider that this constitutes a substantive response to the matters raised (by revisiting the underlying assessment of harm), as demonstrated by the treatment of curtilage listed buildings at Kenningham Hall.

4.2 PEA recognises that an applicant is not required to repeat itself unnecessarily. However, where new or clarified evidence - such as the acknowledgement of curtilage listed status, or the content of the Applicant's own viewpoint visualisations - calls into question a previously reached conclusion, cross-

referencing a document which pre-dates that evidence cannot properly be treated as addressing the point. PEA submits that the effect, whether or not intended, has been to leave PEA's core objections on methodology without a substantive answer at the close of Examination.

5. Conclusion and Requests to the Examining Authority

5.1 PEA submits that the historic environment assessment for the Project has not been demonstrated to be robust, proportionate or fully compliant with the GPA3 methodology which the Applicant states it has followed, for the reasons set out above.

5.2 PEA respectfully requests that the ExA:

- require the Applicant to clarify the legal and methodological basis for assessing curtilage listed buildings as non-designated heritage assets, and to confirm whether comparable buildings have been correctly identified along the wider route;
- give weight, in its findings on individual assets, to the discrepancy between the Applicant's narrative conclusions and its own supporting visual evidence, in particular at Kenningham Hall (Viewpoint HE9);
- consider whether the group value of heritage assets, including but not limited to Ingatestone Hall, Margaretting Hall and St Mary's Church, and the Little Wenham group, has been adequately assessed in accordance with GPA3; and
- reflect the cumulative effect of these matters in its assessment of the level of harm to the historic environment for the purposes of the planning balance under Policy EN-1, recognising that where the true level of harm is understated, the weight to be attributed to that harm in the decision is correspondingly diminished.

5.3 PEA is grateful to the ExA for its consideration of this submission and remains available to assist the Examination with any further clarification that may be of use.

Disclaimer: Use of Artificial Intelligence

This report has been produced with the assistance of artificial intelligence (AI) tools. All AI-assisted outputs have been subject to human review and Bidwells retains full professional responsibility for the advice contained herein.

AI systems used in the production of this report are subject to appropriate governance, risk assessment, and oversight. Any personal data or confidential information has been handled in accordance with applicable data protection legislation, RICS requirements, and our Data Protection Policy.

This disclaimer is issued in accordance with the RICS *Responsible Use of Artificial Intelligence in Surveying Practice* professional standard (effective 9 March 2026).

Appendix Ci

Pylons East Anglia (PEA)

Rebuttal to the Applicant's Further Comments on any Further Information or Submissions Received by Deadline 5 (ref. EN020027)

1. Introduction

PEA has reviewed the Applicant's further comments (EN020027). PEA does not accept that this response advances the Examination's understanding of the matters in dispute. Across ten separate paragraphs responding to distinct heads of concern, the Applicant deploys substantially the same formula: an acknowledgement of PEA's comments, a signpost to REP5-202, REP4-300, REP4-318 or REP3-074, an assertion that the agreed methodology has been applied "*consistently and appropriately*," and a closing statement that "*no material new issues have been raised*." PEA submits that this pattern is itself evidence of the deficiency PEA has raised throughout the Examination: a templated response applied irrespective of the specific evidence put to the Applicant.

This rebuttal addresses, in turn, the Applicant's reliance on cross-referencing in place of substantive engagement, its persistent claim to have followed the GPA3 five-step methodology, its description of the level of agreement with Historic England, and its attempt to separate the adequacy of the assessment from the planning balance.

2. Repeated Signposting Does Not Constitute a Substantive Response

The Applicant's response relies, in every paragraph, on cross-reference to four earlier documents — REP5-202, REP4-300, REP4-318 and REP3-074 — rather than engaging with the specific asset-level evidence PEA has since put on the record, including distance errors and internally contradictory assessments identified in PEA's prior rebuttals and the corroborating, asset-specific concerns raised independently by Historic England, and all local authorities affected by the scheme. Repeatedly referring to past documents that do not address the evidence in question does not amount to a response; rather, it merely underscores that the issue remains unaddressed.

Furthermore, the Applicant states that cross-referencing is intended "to provide clarity and avoid unnecessary repetition." PEA does not object to cross-referencing as a matter of principle. Rather, PEA's objection is that, on each occasion PEA has raised a new example of a heritage asset being wrongly or underassessed, the Applicant's response has not engaged with that example on its merits, but has instead reasserted that the methodology was sound in general terms. A general assertion of soundness cannot answer a specific highlighting of error or inadequacy of assessment.

3. The Claimed Application of the GPA3 Five-Step Methodology

The Applicant has consistently stated that it has followed Historic England guidance for assessing the setting of heritage assets. PEA does not accept that this process was thoroughly carried out, for the reasons already evidenced in PEA's prior rebuttals and objection statements and repeated in summary below.

Step 1 requires each heritage asset to be identified. It is clear that the Applicant has identified the majority of assets that have the potential to be impacted by the proposed scheme, but some elements have been missed, including the grade II curtilage buildings of Kenningham Hall which are located directly beneath the project. Despite PEA bringing this to the Applicants attention, they still have not been assessed as part of the application process. It is unclear how many other curtilage buildings may also have been missed.

Step 2 requires an assessment of how an asset is experienced, including views, patterns of movement, and associative relationships. The revised HEBR (2026) consistently describes only how a setting is "informed by" nearby features without any assessment of how the asset is experienced or how permanent large-scale infrastructure sited nearby would change that experience. This pattern recurs across hundreds of entries in the HEBR and PEIR and is not confined to isolated cases.

Step 3 requires the assessment to address the proposed development's location and siting, form and appearance, additional effects including change to skyline, permanence, and consequential effects on communities. PEA has found no evidence in the Applicants submissions that the scale, massing, or industrialising effect of pylon infrastructure has been properly considered in terms of harm to the historic environment.

Step 4 considering mitigation: The Applicant states that mitigation has been addressed in accordance with its methodology; PEA does not accept that any effective mitigation has in fact been proposed. Indeed, the Environmental Statement itself acknowledges that any mitigation provided for those assets that are experiencing the most harm would inevitably introduce further large-scale elements that would themselves cause harm to heritage assets. PEA considers this to be, in effect, an admission of the scale of the development's impact on the landscape and historic built environment. As PEA has stated throughout the Examination, undergrounding remains the only effective form of mitigation available for the heritage assets affected.

4. Agreement with Historic England

The Applicant states that "conclusions of assessment are agreed with Historic England for the vast majority of heritage assets potentially affected by the Project." PEA does not accept that this framing fairly represents the position. Historic England has itself identified a specific list of high-value, predominantly Grade I and Grade II* assets, including Creeping Hall (NHLE 1352073), Little Wenham Castle (NHLE 1033405), the Barn South West of Little Tey House (NHLE 1266779), the Parish Church of Saints Margaret and Catherine, Aldham (NHLE 1170063), St Mary the Virgin, Buttsbury (NHLE 1264434), the Church of St Remigius, Roydon, and the Church of St Mary and All Saints, Rivenhall (NHLE 1169594), where it considers the harm assessed by the Applicant to be understated, in one case describing the Applicant's approach to xxxxx as an "anomaly." In any case, a claim that there is agreement in the "vast majority" of cases does not address the key issue: the

disagreement concerns some of the most important heritage assets on the route. These are the assets for which accurate assessment matters most, and where any understatement of effects would have the most serious consequences.

5. A Corroborated, Systemic Pattern, Not a Difference of Opinion

The Applicant repeats its position that differing conclusions reached by PEA reflect "a difference in professional opinion regarding the interpretation of effects and the weighting of evidence," and separately denies that the assessment is "reliant on formulaic application of methodology." PEA does not accept either view.

First, a repeated concern, that the original assessments in the HEBR were inadequate. Settings assessed as making a considerable contribution to significance within a short distance of the DOL were nonetheless found not to extend to the Draft Order Limits, without any assessment of how the asset was experienced in the landscape. In addition, no appraisal was ever provided to assess the visual dominance of the proposed infrastructure on the historic landscape and built environment. A lack of proper assessment has been raised independently by PEA, Historic England, and all local councils, in relation to different assets across different parts of the route, which demonstrates a systemic methodological issue, not a series of unrelated professional disagreements.

Second, stakeholders have previously highlighted that no designated heritage asset across the entire Project has been assessed as suffering "Upper Less Than Substantial Harm" or "Substantial Harm." The Applicant's response does not address this point at all. PEA repeats its submission that this uniform outcome, applied without exception across a route of this length and heritage density, is itself evidence consistent with a downward pressure on harm ratings, whether by design or as a product of the flawed scoping methodology.

Third, PEA's review of the Applicants submissions consistently use a templated pattern of wording repeated near-identically across hundreds of individual asset entries, irrespective of each asset's particular circumstances. This is the definition of formulaic application of methodology, and it is difficult to reconcile with the Applicant's claim that each asset has been considered "individually" on the basis of site visits and professional judgement.

6. The Planning Balance Is No Substitute for an Adequate Assessment

The Applicant asserts that the assessment of heritage effects and the planning balance are separate exercises, and that policy support for the Project does not diminish the robustness of the assessment. PEA agrees with this proposition in principle, and has not argued otherwise. Rather, PEA's concern is not that policy support has been used to excuse inadequate assessment; it is that the assessment itself, prior to any planning balance being struck, has understated the contribution of setting to significance and, consequently, the extent of heritage harm, for the specific reasons of scoping and methodology set out above and in PEA's prior rebuttal. The Applicant's response answers a different point from the one made by PEA, and therefore does not engage with the substance of PEA's concern.

7. Conclusion

The Applicant's latest response does not, in PEA's opinion, add anything of substance to the position already on the record. Furthermore, PEA does not accept the Applicant's position that a difference in professional opinion explains the pattern of concerns raised by PEA, Historic England, and every affected local authority and stakeholder. The consistent and repeated nature of these concerns, across multiple independent parties and covering both designated and non-designated assets throughout the route, points to a systemic failure to apply the GPA3 five-step methodology correctly — not a legitimate difference of interpretation applied to a sound evidence base.

The Applicant's practice of responding to detailed, asset-specific evidence by referring back to its own prior matrices and generic assurances of adequacy does not discharge its obligation to engage with that evidence. PEA respectfully requests that the ExA gives due weight, in its assessment of harm to the historic environment, to the consistent and corroborated concerns raised by Historic England and the affected local authorities, alongside PEA's own evidence, in reaching its conclusions on the adequacy of the Applicant's historic environment assessment and on the case for undergrounding as the only effective mitigation available.

Appendix D

Closing Submission to the Examining Authority

Submitting Body: Roxwell Flood Prevention Group

Project: Norwich to Tilbury Development Consent Order

1. Introduction

The Roxwell Flood Prevention Group would like to thank the Examining Authority for the opportunity to participate in the Examination.

We also thank the Examining Authority for carefully considering the concerns raised by local residents throughout the Examination.

This Closing Submission is not intended to repeat our previous oral representation or written submission. Instead, it explains why, having considered the Applicant's response, we remain concerned that significant questions regarding flood risk within the Newlands Brook, Roxwell Brook and River Can catchment remain unresolved.

Our concerns are based on the flooding experienced by our community, the evidence submitted in support of our oral representation, the Applicant's response to those concerns and the ongoing Natural Flood Management (NFM) work currently being undertaken within the catchment.

2. Roxwell is one of the most hydraulically sensitive parts of the Newlands Brook, Roxwell Brook and River Can catchment

Our original submission explained why we believe the Chelmsford 6 section passes through one of the most hydraulically sensitive parts of the Newlands Brook, Roxwell Brook and River Can catchment.

Roxwell lies at the confluence of Newlands Brook and Roxwell Brook before they combine to form the River Can.

Flooding within the village is not simply represented by mapped flood extents or statistical return periods.

It affects homes.

It affects businesses.

It affects roads.

It affects access.

It affects the resilience of the entire community.

During the Open Floor Hearing we explained these issues directly to the Examining Authority and subsequently submitted supporting photographs and video evidence illustrating the flooding experienced within the catchment.

Observed flooding and community access

Our concerns are based not only on modelling and flood mapping but also on repeated observed flood events experienced by residents.

Figure 1 – Newlands Brook Ford (Village Exit)

(The Essex Police Facebook post showing the two photographs.)

Caption:

Lots of flooded roads particularly around [#Roxwell](#) and [#Writtle](#).

Several cars have got stuck and most likely written off.

Please avoid driving in this area.

Lots of officers finding out that their uniform isn't as water proof as they'd hoped.

[#ProtectingAndServingEssex](#)



Figure 1. Essex Police public warning issued on 14 January 2021 showing flooding at the Newlands Brook ford, one of the principal exits from Roxwell. Essex Police advised motorists to avoid roads around Roxwell because of widespread flooding after several vehicles became stranded and were likely written off.

Figure 2 – Chelmsford 6 Blackwall Bridge
(The photograph 23rd June looking through the windscreen across the flooded road.)

Caption:

Figure 2. Flooding affecting **Chelmsford 6 Blackwall Bridge**, the principal access route serving Roxwell. During flood events this route becomes impassable, significantly affecting access to and from the village.

Although taken during different flood events, these photographs were not taken at the peak of flooding and should not be interpreted as showing the maximum extent or depth of floodwater.



Rather, they provide contemporaneous evidence of recurring flooding affecting more than one principal access route serving Roxwell. Together, they demonstrate that flooding within the Newlands Brook, Roxwell Brook and River Can catchment is not confined to a single isolated location, but has direct and repeated consequences for access, community resilience and the ability of residents, businesses and emergency services to enter and leave the village during flood events.

Together, they demonstrate that flooding within the Newlands Brook, Roxwell Brook and River Can catchment is not confined to a single isolated location, but has direct and repeated consequences for access, community resilience and the ability of residents, businesses and emergency services to enter and leave the village during flood events.

In our respectful submission, these observed impacts should be considered alongside modelled flood mapping when assessing whether the Applicant has fully

characterised the flood behaviour of the Newlands Brook, Roxwell Brook and River Can catchment.

Historical flood evidence and catchment response

The historical rainfall records included within this submission are not intended to establish a rainfall threshold at which flooding occurs. Rather, they demonstrate documented flood events affecting the Newlands Brook, Roxwell Brook and River Can catchment over several decades.

These historical records demonstrate that flood behavior depends upon numerous interacting factors including soil saturation, groundwater levels, and channel capacity and cannot be explained by rainfall totals alone.

3. The Applicant's response

In response to our submission, the Applicant states that the matters we raised have already been addressed during the Examination.

The Applicant relies upon:

- the Flood Risk Assessment;
- the Drainage Strategy;
- the Outline Code of Construction Practice; and
- the Statement of Common Ground with the Environment Agency.

The Applicant further states that the Flood Risk Assessment has been informed by “all current datasets” and concludes that no additional site-specific Flood Risk Assessment is necessary.

During the Examination, the Examining Authority itself sought further site-specific information from the Applicant. In our respectful submission, this reflected the importance of understanding local conditions rather than relying solely on broader route-wide assessments.

Respectfully, we remain unconvinced that the Applicant's statements answer the concerns we raised. Our concern has never been whether a Flood Risk Assessment exists. Our concern is whether the Newlands Brook, Roxwell Brook and River Can catchment has been assessed with sufficient site-specific understanding to justify the conclusions reached.

4. The catchment is still being understood

One of the most significant matters to emerge during the Examination is that Government-funded Natural Flood Management work within the Newlands Brook, Roxwell Brook and River Can catchment remains ongoing.

The Environment Agency, Essex County Council, local landowners and members of the Roxwell Flood Prevention Group continue to work together to identify and implement measures designed to reduce flood risk. Importantly, this work has not yet concluded.

As members of the Roxwell Flood Prevention Group working alongside the Natural Flood Management team, we have discussed the Blackwall Bridge section of the catchment. However, before the Examination concluded, the planned site survey of that area had not yet taken place because insufficient time had been available. Consequently, work within this important section of the catchment remains ongoing.

This gives rise to an important question:

How does the ongoing Natural Flood Management work sit alongside the Applicant's conclusion that no further site-specific assessment is required?

If understanding of the catchment continues to evolve through the ongoing Natural Flood Management programme, how can it simultaneously be concluded that the Applicant's Flood Risk Assessment has fully characterised the catchment?

5. The Environment Agency's role

The Applicant relies heavily upon the Statement of Common Ground with the Environment Agency as evidence that hydrology, flood risk and land drainage matters have been agreed.

However, this appears difficult to reconcile with the Environment Agency's own ongoing Natural Flood Management work within the Newlands Brook, Roxwell Brook and River Can catchment.

If the Environment Agency's agreement with the Applicant took account of the ongoing Natural Flood Management work, what information from that work informed the Applicant's assessment?

If the detailed site assessment of the Blackwall Bridge section had not yet been undertaken, has the Applicant's assessment been based upon a complete understanding of the Newlands Brook, Roxwell Brook and River Can catchment?

Furthermore, whilst the Applicant states that its Flood Risk Assessment has been informed by "all current datasets", we remain unconvinced that the information relied upon fully reflects the flood behaviour experienced within the catchment.

As set out in our previous submission and supporting appendices, we provided photographic evidence demonstrating flooding affecting locations that are not identified on the published Environment Agency flood maps. Following the 2016 flood event, the published Environment Agency flood mapping was revised. However, the photographic evidence submitted with our appendices demonstrates that even the revised mapping does not fully reflect the observed flood behaviour experienced within the Newlands Brook, Roxwell Brook and River Can catchment. In our respectful submission, where the published baseline does not fully characterise existing conditions, there is a corresponding risk that any assessment relying upon that baseline may understate both existing flood conditions and the potential impacts of the Proposed Development.

If the existing evidence base already provided a complete understanding of the Newlands Brook, Roxwell Brook and River Can catchment, it is difficult to understand why Government-funded Natural Flood Management work remains ongoing to improve understanding of how water moves through the catchment and to identify further measures to reduce flood risk.

This apparent contradiction lies at the heart of our concern. The Applicant states that the catchment has been sufficiently characterised using all current datasets, whilst the ongoing Natural Flood Management programme demonstrates that understanding of the catchment continues to evolve.

6. Cumulative impacts

During the Examination, the circumstances affecting the Newlands Brook, Roxwell Brook and River Can catchment changed.

The proposed quarry upstream of Roxwell has progressed to a live planning application. The proposal includes a discharge of approximately:

26.28 litres per second

1,577 litres per minute

94,608 litres per hour

approximately 2.27 million litres per day

This proposed discharge is into the same catchment approximately two kilometres upstream of Roxwell and, in our respectful submission, reinforces the importance of considering cumulative effects within the catchment as a whole.

In our respectful submission, the cumulative effects of:

the National Grid project;

the quarry proposal;

the ongoing Natural Flood Management program; and

the existing flood characteristics of the Newlands Brook, Roxwell Brook and River

Can catchment

have not been fully assessed together.

7. Assessment before mitigation

Throughout its response, the Applicant relies upon future Construction Environmental Management Plans, drainage controls and mitigation, effectively taking the position that risks can be managed during construction.

Respectfully, we remain concerned by this approach.

Environmental assessment should first establish a proper understanding of likely impacts. Mitigation should then be designed to address those impacts.

Where understanding of a catchment continues to evolve, a key question arises:

How can mitigation be confidently designed if the fundamental behaviour of the catchment is still being understood?

Where understanding of a catchment continues to evolve, it is difficult to understand how future mitigation can be confidently relied upon before that understanding has been completed.

8. Conclusion

“The Roxwell Flood Prevention Group acknowledges that the Applicant has undertaken a Flood Risk Assessment. However, we remain unconvinced that it adequately characterises flood risk within this hydraulically sensitive catchment.”

Our concern is that the Newlands Brook, Roxwell Brook and River Can catchment has not been assessed with the level of site-specific understanding that its known flooding history, ongoing Natural Flood Management programme and evolving cumulative circumstances require.

The Applicant's response relies upon broad assessments, standard mitigation and future management plans. In our respectful submission, this does not fully answer the site-specific concerns raised during the Examination.

We therefore respectfully invite the Examining Authority to give significant weight to these unresolved matters when considering whether the Applicant has demonstrated that the behaviour of the Newlands Brook, Roxwell Brook and River Can catchment has been characterised with sufficient site-specific understanding to support the conclusions reached in its Flood Risk Assessment before development consent is granted.

Submitted by:
Roxwell Flood Prevention Group