



Norwich to Tilbury National Grid: AENC-ARC-ENV-REP-0176

Written Representation

Relevant Representation Reference Number [REDACTED]

Introduction

This Representation is made by the General Aviation Awareness Council, as an Interested Party, on behalf of the General Aviation Aerodromes that would be adversely impacted by the Norwich to Tilbury National Grid scheme as promoted in the submitted DCO Application.

The GAAC is not opposed to the principle of this proposed development but to the detailed route alignment where this adversely affects General Aviation Aerodromes.

The General Aviation Awareness Council (GAAC) was formed over twenty years ago to work for the protection of UK airfields from indiscriminate development. It represents the interests of over 30 Associations, including the British Gliding Association (BGA), Aeroplane Owners & Pilots (AOPA), the Light Aircraft Association (LAA), the Honorable Company of Air Pilots (HCAP), the Aerodrome Operators Group (AOG), British Business & GA (BBGA), the Flying Farmers Association (FFA), British Microlight Aircraft (BMAA) and ARPAS, the Association of Remotely Piloted Aircraft Systems. It therefore represents 40,000+ members involved in fixed wing, helicopter, gliding, Microlight, Balloon, Drone and Aeromodeller activities.

Wherever possible, the GAAC works in conjunction with complimentary organisations such as Sport England, the RSPB and CPRE. Since 2018 the GAAC has been closely involved with the All Party Parliamentary Group for General Aviation.

The Civil Aviation Authority Airfield Advisory Team (AAT) was involved with the Norwich to Tilbury National Grid project until March 2025. It provided advice to National Grid on the extent of impact that the proposed line routes could have on established aviation systems. The AAT was disbanded in April 2025. However, the CAA's General Aviation (GA) unit has made clear that it does not seek to retract or repudiate any of the work previously done by the AAT. The AAT's letter to National Grid, dated 20 March 2025 is at Appendix 1.

In addition, the CAA's Combined Aerodrome Safeguarding Team (CAST) has issued a series of advice notes for aerodromes and decision makers highlighting the need for developers and decision makers to take account of the presence of general aviation aerodromes and for the safety of users to be protected.

This Representation relates to the principle that General Aviation airfields constitute a national asset and they should be taken into account at the start of the evaluation of new infrastructure projects. It also relates to aerodromes directly affected by this proposed scheme. No consideration was given to General Aviation when the proposed route for this scheme was first published. National Grid has lacked genuine engagement and given inadequate consideration to



General Aviation infrastructure since then. The Civil Aviation Authority has enabled some minor measures to be put in place to reduce the impact on a number of aerodromes affected.

In relation to this Examination, in addition to the general principles, this Representation specifically endorses the site specific issues raised by four General Aviation aerodromes – Chase Farm, Priory Farm, Raydon Wings and Tibenham and the carefully crafted and insightful comments by many members of the public endorsing the importance of these aerodromes.

- A: This Representation responds to **'Document 6.15 Environmental Statement Chapter 15 – Socio-economics, Recreation and Tourism'** (document reference 6.15). This document has a similar paragraph numbering to that in the Appendix.
- B: This Representation also responds to Volume 6 of the Applicant's Environmental Statement (ENO20027 – 000410-headed **'Document: 6.15 Environmental Statement Chapter 15 – Socio-economics, Recreation and Tourism, Appendix 15.2 Review of Aviation Impact'** (document reference 6.15.A2) It focuses on the Applicant's approach and evaluates the soundness of this approach in the context of relevant planning policy.

The Applicant's Contents are listed as:

- 15. Review of Aviation Impact
 - 15.1 Introduction
 - 15.2 Planning Policy and Regulatory Context
 - 15.3 Scope of the Assessment
 - 15.4 Aviation Assessment

We follow this layout in our Representation which addresses 15.1 – 15.3.

The aerodrome specific issues, '15.4 – Aviation Assessment', are addressed by the aerodrome operators who are the appropriate experts on the impact of the proposed development on their specific operations and safety of their aerodrome.



A. Document 6.15 Environmental Statement Chapter 15 – Socio-economics, Recreation and Tourism

1. As stated, the ‘Review of Aviation Impact’ is flawed, in respect of: its interpretation of, and failure properly to apply, national planning policy (set out in the EN documents and the National Planning Policy Framework), aviation regulation and related guidance and the provisions of CAP 738 and 793, as well as the scope of the assessment undertaken and the ALARP principle. ES Chapter 15 is therefore also flawed.
2. This Chapter only considers aerodromes where even the flawed assessment has identified what the promoter considers to be ‘likely significant effects’. Therefore, this Chapter has only addressed Raydon Wings and Chase Farm Aerodromes.
3. It concludes that only Chase Farm Aerodrome would be subject significant adverse effects – ‘as closure is anticipated’. The effects are described in paragraph 15.7.23 as ***‘permanent, long-term, moderate adverse and significant’***.
4. There is a fundamental flaw in the approach that is being applied. The route alignment at Chase Farm could have been modified at an early stage of this project. This Document sets out post-hoc justification for the flawed route alignment process. The judgement of ‘moderate adverse’ is not explained but would appear to be post-hoc subjective judgement about the size and importance of this aerodrome.
5. The assessment also concludes that the ‘temporary’ closure of Raydon Wings would take place but the duration of this is not identified. The document admits it has no detailed information about the nature of the operation nevertheless is able to conclude that impact is, ***‘temporary, short-term, minor adverse and not significant.’***
6. As noted above, not all affected aerodromes have been addressed – where the flawed assessment concludes there will be no impacts on these aerodromes. Aside from our analysis which demonstrates that the overall impact assessment is very narrowly focussed, this assessment has not even considered the following points.
7. The nature of the proposed development introduces a major change to approaches very close to some of the airfields. Unfamiliarity may be a deterrent per se. Major structures in proximity of an airfield runway may also deter all users in some weather conditions. Certain types of flying activity – including aircraft types, training and competitions may be compromised. Any and all of these significant changes in the environs of an aerodrome can then have knock-on effects on visitor numbers and income.
8. As aerodromes play a very significant role in providing leisure and recreational experiences, the recreational value of existing, established, aerodromes may be compromised, affecting not just pilots but the communities within which the aerodromes sit. The broader socio-economic value of the affected General Aviation aerodromes has not been taken into account.



9. The Environmental Statement has not properly addressed the socio-economic, recreation and tourism impacts of the proposed development.





B Document: 6.15 Environmental Statement Chapter 15 – Socio-economics, Recreation and Tourism
Appendix 15.2 Review of Aviation Impact

15.1 Introduction

1. Paragraph 15.1.1 refers to a ‘review’ of aviation impacts. This implicitly accepts that the proposed development **does** have ‘impacts’ on aviation – which includes safety, the nature, range and scale of operations, together with planned development and future opportunities. However, as can be seen below and in representations by the aerodrome operators, the actual ‘review’ is much more narrowly focussed than that.
2. Paragraph 15.1.2 refers to drawing on ‘the findings of Alan Stratford and Associates’ (ASA). However, no comprehensive report setting out the scope of the work undertaken by ASA is provided. Their skills and understanding of the aviation activities affected are unknown. Their instructions have not been provided. As will be demonstrated below, the ‘findings’ are narrowly based and do not fully or adequately contribute to any proper evaluation of aviation impacts.



15.2 Planning Policy and Regulatory Context

We address below (1) National Planning Policy, (2) the National Planning Policy Framework, (3) Aviation Regulation and Related Guidance, (4) Civil Aviation Publication (CAP) 738 and (5) CAP 793.

1. National Planning Policy

- 1.1 In paragraph 15.2.6, the applicant's reference to the wording of EN-1 is factually correct but its requirements have not been adhered to. The level of consultation with Raydon Wings, Priory Farm, Tibenham and Chase Farm airfields has been superficial and comments made by the aerodromes have not been incorporated into the assessment of the proposal on aviation. Neither has there been consideration of operational or cumulative effects, for example the relationship between Priory Farm and Tibenham aerodrome operations.
- 1.2 EN-1 is also quoted at its paragraph 15.2.7 but the applicant has not included any mitigation measures as an integral part of the proposed development, contrary to the principles of this and subsequent paragraphs.
- 1.3 Paragraph 15.2.8 of the Applicant's document draws attention to paragraph 5.5.50 of EN-1 which states:

'...the SoS should be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes, and that realistically achievable mitigation is carried out'
- 1.4 The proposed route was identified before any attention was given to the existence or proximity of airfields. No change has been made to the route to take account of the existing airfields. It is clear, therefore, that the provisions of EN-1 have not been taken into account.
- 1.5 EN-1, quite correctly, notes that the Civil Aviation Authority (CAA) requires licensed civil aerodromes to comply with 'obstacle limitation surfaces' and have safeguarding arrangements in place. It also notes CAA guidance also recommends that all aerodrome operators should take steps to protect their aerodrome from the possible effects of development. However, ASA has not applied the appropriate parameters in its assessment, consistently arguing that CAA protection extends only to licenced aerodromes. Furthermore, ASA also rejects there being any case there for safeguarding principles, as set out by the CAA, to be varied in order to cater for the specific aerodrome operations or location. Therefore, the Applicant has not complied with the provisions of paragraph 5.5.50 (November 2023), (5.5.52 December 2025).
- 1.6 There is no evidence that the provisions of paragraph 5.5.50 of EN-1 have been followed. No information or evidence has been put forward by the promoter to demonstrate that the design of the scheme or the route of the proposed overhead pylon line has been to identified so as to '*minimise adverse impacts*'.

- 1.7 It is important to record that there was no mention of aviation in the first route selection report (East Anglia Green Energy Enablement (GREEN) Corridor and Preliminary Routeing and Siting Study Report, April 2022). Only one aerodrome is mentioned – Stow Maries - but this reference related solely to its historic value and listed status, not to the activities that currently takes place.
- 1.8 No other active general aviation aerodrome was mentioned and neither was the sport, recreation, training or connectivity value and importance of general aviation airfields addressed or considered to be a material consideration.
- 1.8 Paragraph 15.2.9 of the Applicant’s document notes that EN-1 places an obligation on aerodrome operators to agree reasonable changes to operating procedures. This is sound but the applicant is also required to demonstrate ‘... *necessity, acceptability and reasonableness*’ which has not been done.
- 1.9 If the initial route selection had been undertaken thoroughly it is highly likely that relatively small modifications could have been identified which would have avoided the adverse impacts on General Aviation aerodromes which are now evident.
- 1.10 The GAAC accepts the need for network enhancement. However, if National Grid had carried out proper evaluation in 2022, it would have avoided, or at least substantially reduced, the time and cost of now seeking to defend its route.
- 1.11 Paragraph 15.2.10 of the Applicant’s document refers to mitigation with the overarching purpose of avoiding economic loss, harm to training and safety risks. However, the applicant has not attempted to quantitatively or qualitatively assess economic loss, harm to training or recreational value. Its appraisal of safety risks is not comprehensive. Overall, the applicant’s engagement with aviation operators, to date, has not been constructive.
- 1.12 The position of National Grid in all early discussions was that its advisors stated there would be no adverse impact on general aviation activity and only a small risk to aviation safety. National Grid’s advisors insisted that it would only consider route changes if the CAA Civil Aviation Publication (CAP) 168 safeguarding provisions were infringed. Generally, these provisions are not directly relevant to General Aviation aerodromes, however, as set out below, other safety requirements must be met. National Grid’s advisors have consistently set aside these safety requirements.
- 1.14 The Applicant’s lack of consideration of the issues set out in paragraphs 15.2.6 – 15.2.10 may derive from its failure adequately to address relevant planning policy and its misinterpretation of the provisions of the Air Navigation Order. This is addressed below.

2 National Planning Policy Framework

2.1 The Applicant's paragraph 15.2.12 refers to the National Planning Policy Framework (NPPF), however it only refers to some of its provisions and salient policy statements are omitted. In particular, It omits paragraph: 111 of the Framework which states:

'Planning policies should:

f) *recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training and emergency service needs, and the General Aviation Strategy,'*

2.2 None of the relevant qualitative considerations in the NPPF have been considered. The affected aerodromes are businesses with rigorous operational and safety requirements to be operating. Their current and potential future value – not only in monetary terms but also in recreational, business, training and emergency activity terms has not been addressed at all by the Applicant. As stated in paragraph 111(f) airfields do need to adapt and change over time and the proposed pylon route creates both current and potential future restrictions on their operations.

2.3 In addition, the NPPF recognises the importance and value of general aviation aerodromes for sport. Sport England recognises all flying activities as '**sports**' in planning policy terms. This means that aerodromes are **sports venues** and therefore the relevant planning policies as set out in the NPPF to protect Sports Venues apply to general aviation aerodromes, as identified below.

2.4 Tibenham Aerodrome is identified by Sport England as a National Significant Area for Sport (SASP). It is also identified in the whole Strategic Aerodrome Network (SAN) as of Regional Significance. Tibenham Priory Farm is identified as of Local Significance in the SAN.

2.5 Paragraph 88 of the NPPF states:

'Planning policies and decisions should enable:

d) *the retention and development of accessible local services and community facilities, such as local shops, meeting places, **sports venues**, open space, cultural buildings, public houses and places of worship.'*

2.6 Paragraph 96 of the NPPF states '*Planning policies and decisions should aim to achieve healthy, inclusive and safe places which:...*

c) *enable and support healthy lives, through both promoting good health and preventing ill-health, especially where this would address identified local health and well-being needs and reduce health inequalities between the most and least deprived communities – for example through the provision of safe and accessible green*

*infrastructure, **sports facilities**, local shops, access to healthier food, allotments and layouts that encourage walking and cycling.'*

- 2.7 Paragraph 98 of the NPPF states: *'To provide the social, recreational and cultural facilities and services the community needs, planning policies and decisions should:*
- a) *plan positively for the provision and use of shared spaces, community facilities (such as local shops, meeting places, **sports venues**, open space, cultural buildings, public houses and places of worship) and other local services to enhance the sustainability of communities and residential environments;...'*
- 2.8 Paragraph 103 states: *'Access to a network of high quality open spaces and opportunities for **sport** and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change. Planning policies should be based on robust and up-to-date assessments of the need for open space, **sport and recreation facilities** (including quantitative or qualitative deficits or surpluses) and opportunities for new provision. Information gained from the assessments should be used to determine what open space, sport and recreational provision is needed, which plans should then seek to accommodate.'*
- 2.9 Paragraph 104 underlines the need to retain sports facilities. It refers to their loss through development but such loss could also be caused by changes to the local flying environment.
- 2.10 A further, highly relevant element of the NPPF, paragraph 200, makes clear that the existence of a community facility and /or sports venue takes precedence over a new development. This provision has been specifically applied to airfields by Planning Practice Guidance Paragraph: 014 Reference ID: 30-014-20190722.
- 2.11 Paragraph 200 states:
- 'Planning policies and decisions should ensure that new development can be integrated effectively with existing businesses and community facilities (such as places of worship, pubs, music venues and sports clubs). Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established. Where the operation of an existing business or community facility could have a significant adverse effect on new development (including changes of use) in its vicinity, the applicant (or 'agent of change') should be required to provide suitable mitigation before the development has been completed.'*
- 2.12 The sport and recreational value of general aviation aerodromes has not been accorded appropriate weight by the scheme promoter. The value and function of the established general aviation businesses and community facilities have not been adequately considered or taken into account in National Grid's scheme design, contrary to the provisions of the NPPF.

3 Aviation Regulation and Related Guidance

- 3.1 Paragraph 15.2.14 of the Applicant's document is an incorrect description / interpretation of the Air Navigation Order. Paragraph 15.2.14 states:

*The Air Navigation Order (ANO) 2016 (as amended) (UK Government, 2016) is the statutory instrument that establishes UK regulations for civil aviation matters, including safety management. The ANO requires that, in the UK, flights for the public transport of passengers, and for certain types of flying instruction, take place at a certified, licensed or government (military) aerodrome. The minimum standards for certified aerodromes are established in Aerodromes UK Regulation (EU) 139/2014 (UK Civil Aviation Authority, 2025) **but are not directly relevant as no certified aerodromes have been identified within the scope for assessment** (see Section 15.3). Regulatory Article (RA) 3512 (Ministry of Defence, 2023) is relevant to military aerodromes (such as Wattisham Flying Station, see Table A15.2.1) and addresses OLS definition requirements.'*

- 3.2 The wording highlighted in red above is not correct. ANO 2016 Article 240 applies to **any** aerodrome. It states:

Endangering safety of an aircraft

Article 240 states 'A person must not recklessly or negligently act in a manner likely to endanger **an aircraft, or any person in an aircraft.**' [our emphasis]

- 3.3 ANO Article 265 defines offences and penalties for contravention of the provisions of the Order.
- 3.4 There is no basis to assert that the provision of the ANO applies only to 'certified' aerodromes.
- 3.5 There is little information in the documents about maintenance of the proposed overhead cables. National Grid's website refers drones revolutionising the maintenance of grid infrastructure. Drones would create an added threat to aviation safety in the vicinity of the aerodromes along this route.

4 CAP 738: Safeguarding of Aerodromes

4.1 The Applicant correctly states that CAP 738 (paragraph 1) provides advice and guidance to ‘...certified, licensed and non-licensed aerodromes...’ Paragraph 7 of CAP 738 also states that whilst it considers the aerodrome operator of certificated and licensed sites to hold expert opinion on safeguarding their site, it does not ‘...hold a view on safeguarding at non-licensed sites.’

4.2 However, other advice is relevant and should be taken into account. In particular, the Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002 Annex 1 – Circular 1/2003 states:

‘Other civil aerodromes

Operators of licensed aerodromes which are not officially safeguarded, and operators of unlicensed aerodromes and sites for other aviation activities (for example gliding or parachuting) should take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the local planning authority or authorities. One method, recommended by the Civil Aviation Authority to aerodrome licensees, is to lodge a non-official safeguarding map with the local planning authority or authorities. Local planning authorities are asked to respond sympathetically to requests for non-official safeguarding. The general advice in this Annex is applicable to non-officially as well as to officially safeguarded aerodromes, but the requirements of the Direction at Annex 1 will not apply. The Civil Aviation Authority is prepared to offer advice on the preparation of a non-official safeguarding map at the request of any aerodrome operator or local planning authority.’ [our emphasis]

4.3 In addition, the CAA Combined Aerodrome Safeguarding Team (CAST) publication GA1: Safeguarding Guidance to General Aviation Aerodrome Managers & Operators states ‘Whilst, therefore, it is not a requirement for an unlicensed aerodrome to have a safeguarding arrangement it is a very good idea to do so.’

4.4 Therefore, it is clearly best practice, recently reinforced, for all unlicensed aerodromes to ensure a safe operating environment is maintained and for this to be accorded weight when new development proposals are under consideration. To be sufficiently safe, an unlicensed aerodrome must meet most of the standards set by the UK CAA licensing regime.

5 CAP 793: Safe Operating Practices at Unlicensed Aerodromes

- 5.1 CAP 793 is referred to in paragraph 15.2.18. The Applicant has not articulated the relevance of CAP 793. Prior to 2010, all flying training was required to be undertaken at licenced aerodromes. This was changed in April 2010 by an amendment to the Air Navigation Order (ANO) 2009 which allows some flying training to take place at unlicensed aerodromes.
- 5.2 The Applicant implies that unlicensed aerodromes are less important and less worthy of safeguarding protection than licenced sites.
- 5.3 The ANO change demonstrates that the protection of unlicensed aerodromes should be given comparable weight as that applied to licensed sites. The relaxation related to training, not to status or safeguarding.
- 5.4 This is reinforced by Chapter 1 paragraph 2 of CAP 793 which refers to the ‘sound practice’ of safeguarding. In particular, attention is drawn to paragraph 4 which states, ‘...where flying training is taking place additional safety margins should be considered.’ Paragraph 9 also states, ‘This publication is written primarily to cover unlicensed aerodromes used by aeroplanes. Less demanding criteria may apply to aerodromes solely used by helicopters, gyroplanes or microlights.’
- 5.5 And, further, by paragraph 8 which states: ‘The fact that an aerodrome is unlicensed does not preclude compliance with the ANO or the Rules of the Air Regulations (RoAR).’
- 5.6 Chapter 2, paragraph 3.2 confirms HM Government advises that aerodrome owners should take steps to safeguard their operations.
- 5.7 Chapter 4, paragraph 2 states:
- ‘The physical characteristics required of a licensed aerodrome are detailed in CAP 168 Licensing of Aerodromes, available via www.caa.co.uk/cap168. While the licensing criteria may not be necessary for safe operation of every type of aircraft, they can be used as guidance on which the layout of an unlicensed aerodrome may be based.’*
- 5.8 Paragraph 5.1 goes on to address obstacles, stating, ‘Anything that, because of its height or position, could be a hazard to an aircraft landing or taking off should be conspicuously marked if it cannot be practicably removed or minimised.’ However, this proposed obstacle is not capable of being removed or minimised. In addition, in an emergency, marking has no value as any form of mitigation.
- 5.9 The specific circumstances at Tibenham Aerodrome underline the failure adequately to take account of the provisions of CAP 793. Paragraph 15.2.18 acknowledges the CAP793 requirement to have no obstacle of 150 ft within 2000 m of a runway mid-point (a climb gradient of 2.286%). The proposed pylons are 2300m from the centre of Tibenham’s



runway 26 but are a continuous obstacle of at least 180ft (a climb gradient of 2.385% which is 4% greater than that implied by CAP793)



15.3 Scope of the Assessment

Overview

1. EN-1 which is introduced in paragraph 15.3.1 of the Applicant's document, makes no distinction between different 'categories' of aerodrome in the protection it affords.
2. The provisions of EN-1 include the following:
 - Paragraph 5.5.1 states: *'All aerodromes, covering civil and military activities, as well as aviation technical sites, meteorological radars and other types of defence interests (both onshore and offshore) can be affected by new energy development.'*
 - Paragraph 5.5.2 states: *'Collaboration and co-existence between aviation, defence and energy industry stakeholders should be strived for to ensure scenarios such that neither is unduly compromised.'*
 - Paragraph 5.5.5 states: *'UK airspace is important for both civilian and military aviation interests. It is essential that new energy infrastructure is developed collaboratively alongside aerodromes, aircraft, air systems and airspace so that safety, operations and capabilities are not adversely affected by new energy infrastructure. Likewise, it is essential that aerodromes, aircraft, air systems and airspace operators work collaboratively with energy infrastructure developers essential for net zero. Aerodromes can have important economic and social benefits, particularly at the regional and local level, but their needs must be balanced with the urgent need for new energy developments, which bring about a wide range of social, economic and environmental benefits.'*
 - Paragraph 5.5.12 states: *'The CAA's CAP 738 sets out that all licensed aerodromes are required to ensure they have a system in place to safeguard their aerodrome against the growth of obstacles or activities that may present a hazard to aircraft operations.'*
 - Paragraph 5.5.14 goes on to state: *'The DfT/ODPM Circular 01/2003196 and CAA guidance also recommends that the operators of aerodromes which are not officially safeguarded should take steps to protect their aerodrome from the possible effects of development by establishing an agreed consultation procedure between themselves and the LPAs.'*
 - Paragraph 5.5.16 states: *'The CAA makes clear that the responsibility for the safeguarding of General Aviation aerodromes lies with the aerodrome operator.'*
 - Paragraph 5.5.50 states: *'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....'*

3. This first part of the Applicant's 'Scope of the Assessment' has not taken account of the salient issues set out in EN-1 and identified above. The method of assessment set out in Sections 5.3.4 – 5.3.35 of the Applicant's document similarly lack rigor or serious 'assessment'. The conclusions in Section 5.4 are not supported by any proper assessment, as we set out below.
4. In the 'Assessment Approach' there is no mention of the ALARP principles. Paragraph 5 of CAP 738 states:

'The common aim of all safeguarding is to assess the implications of any development being proposed within the vicinity of an established aerodrome to ensure, as far as practicable, that the aerodrome and its surrounding airspace is not adversely impacted by the proposal, thus ensuring the continued safety of aircraft operating at the location.'
5. CAP 738, paragraph 3.2 requires the aerodrome operator to assess the risks to safeguarding to include the following:

'as a minimum:

 - a) any development or change in land use in the aerodrome area;
6. The CAA's CAP 760 also provides '*Guidance on the Conduct of Hazard Identification, Risk Assessment and the Production of Safety Cases*' which is sub-titled, 'For Aerodrome Operators and Air Traffic Service Providers' – and which again confirms how and where the assessment and mitigation of risk is to be managed.
7. CAP 760 was prepared to '*...enhance safety regulation and potentially enhances safety performance...*'
8. It defines 'ALARP', (As Low As Reasonably Practical) as:

'A risk is low enough that attempting to make it lower, or the cost of assessing the improvement gained in an attempted risk reduction, would actually be more costly than any cost likely to come from the risk itself.'
9. The principle of ALARP was established in a 1949 court case in the UK, is internationally recognised and is applied throughout the nuclear industry and was codified in the 1974 Health and Safety at Work Act. The principle applied through industry is that the operator must analyse hazards, determine the risks and take appropriate actions to reduce the risks.
10. Whilst the main focus of CAP 760 is on internal systems it is equally applicable to external threats.
11. In this case, the cost of the potential risk generated by the proposed development is high and the Applicant has not demonstrated this risk is tolerable. The Applicant did not include

the consideration of major disasters (including loss of life caused by aircraft accidents) in its Environmental Impact Assessment Scoping document. It did not, therefore, consider the potential effects of its proposals on general aviation or aviation safety.

12. In paragraph 15.3.5, no detail is provided of any of the data obtained – for example LiDAR.
13. The NPPF definition of **general aviation airfields** is *‘Licenced or unlicenced aerodromes with hard or grass runways, often with extensive areas of open land related to aviation activity.’* It makes no distinction between licensed or unlicensed which underlines the flaws of the ‘Scope of the Assessment.’
14. Paragraph 15.3.6 notes that the consultant’s ‘professional judgement’ originally applied a 2km radius for its assessment. As stated in paragraph 15.3.7, on the advice of the CAA, this was extended to a 5km radius. The CAA’s Airfield Advisory Team (AAT) may now have been disbanded but the CAA has not indicated that its advice has been withdrawn. This underlines our concerns about the ‘professional judgement’ applied in other parts of this report.
15. As is clear from paragraph 15.3.27, the CAA does not define an ‘acceptable’ obstacle clearance. The aerodrome operator is the expert responsible for ensuring ongoing safety of the airfield and its surroundings.
16. There is no foundation for the assertion in paragraph 15.3.28 and 15.3.36 that an obstacle clearance height of 100 ft is acceptable. The rules of the air state that a 500ft clearance is required (save for take-off and landing).
17. Paragraph 15.3.38 specifically acknowledges that and *‘...overhead line may not be fully visible over the nose of an aircraft on take-off and approach...’* whilst not proposing any measures to change this. Paragraph 15.3.50 goes on to make reference to marker balls but without any proposal for their use. In any case, as noted above, marking is irrelevant in an emergency – such as engine failure on take-off.



Conclusion

Aviation issues have not been properly or adequately addressed by the Applicant. All threats to aviation safety and viability are capable of being resolved through amendments to the scheme – by some undergrounding, rerouting and / or a reduction in pylon height for a length of the route.

This, and the costs and stress now being experienced, could have been avoided if the presence and operations of general aviation aerodromes had been identified and addressed in earlier stages of the project definition.

Aviation is an important activity in East Anglia and is fully recognised in national aviation policy. Aviation safety is paramount and is fully recognised by the Civil Aviation Authority. The Aerodrome Operator is the expert responsible for ensuring ongoing safety of the airfield and its surroundings.

The ExA is respectfully requested fully to address this important issue.





Appendices

1. CAA Airfield Advisory Team; UK Civil Aviation Authority Professional Services Group Letter of 20 March 2025
2. CAA CAST Advice Note 1
3. GA2 CAST Aerodrome Safeguarding Guidance Note
4. GA5 CAST Aerodrome Safeguarding Alert





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20/03/2025

CAA, AAT Position statement: National Grid – Great Grid Update

Dear Simon,

As you know, the Airfield Advisory Team will be disbanded at the end of March after four and a half years of providing guidance and support to government, general aviation aerodromes, local planning authorities and other stakeholders on a wide range of matters.

It has certainly been a pleasure to have provided support and input to National grid in relation to the Great Grid Update, and how proposed new line routes could adversely impact established aviation systems.

Whilst this position statement, focusses predominantly on the Norwich to Tilbury aspect of the wider GGU scheme, the sentiment can be extrapolated for other proposed routes. The purpose of this position statement is to centralise our thoughts prior to disengagement at the end of March, when the AAT will cease to function.

From our earliest engagement, we have provided signal that when considering proposed power line routing, it is not the aircraft performance envelope that is the limiting factor. Therefore, any intimation that a specific type can manoeuvre to avoid such vertical obstructions should be disregarded.

Instead, we propose that many factors come in to play when considering the extent of impact that proposed new line routes could have on established aviation systems. On 26th July 2024, we sent you an independent assessment of potential impact to a number of aerodromes within a defined corridor along the Norwich to Tilbury Route.

See excerpt from the document which set out our assessment criteria¹

“As a baseline for assessment, the AAT has considered aerodromes within a 10km-wide corridor, centred on the proposed power line. The AAT has identified 17 aerodromes within this corridor along the length of this proposal. At this stage, we have focussed our points on the practicalities of how this scheme may impact these aerodromes and perhaps where further, more technical work could be required.

The aerodromes assessed represent the diversity of GA aerodrome sites across the network. They include large gliding sites, small commercially minded training operations, private sites and a hospital helipad.

For each aerodrome, the following has been considered as part of a desktop assessment:

Nature of aerodrome operation

The nature of an aerodrome site including traffic blend, aircraft types and movement numbers may be a key consideration for assessment.

Existing power lines

Existing power infrastructure in proximity to aerodrome sites may represent an important assessment vector. For example, do they demonstrate a level of impact at present, is this tolerable? Could additional infrastructure associated with the proposed scheme compound any existing challenges or create new ones?

Proximity of the aerodrome to the proposal

The proximity of an aerodrome site to the proposed scheme may have an important bearing on the extent of any impact to the aerodrome operation. Aerodromes located in close proximity to the proposed scheme may be impacted to a greater extent than those further away. The extent of any impact could also be influenced further by other factors.

Local topography

Consideration of aerodrome elevation and wider local topography may be relevant when establishing the extent of any potential impact. For example, where the proposed infrastructure is sited on terrain of higher elevation than that of an aerodrome, specific or compound impact may arise. This consideration should extend out to a suitable range, taking into account runway heading and associated flight tracks over the ground including circuit training where applicable, and the nuanced nature of glider launch and recovery where applicable.

Due to the number of aerodromes along the scheme’s proposed route and the complexity of assessing multiple sites, each with their own nuanced operation, we have

¹ UK CAA AAT Response to consultation -26th July 2024 – sent to National Grid

adopted a high level, ‘say what we see’ approach, accompanied by technical information as required. Our intention is to offer an objective and accessible summary of potential impacts to aerodromes along the route of the proposed scheme.”

As stated in our conclusion in our July 2024 document, our intention was to provide early horizon scanning opportunities to National Grid and their consultants, Alan Stratford and Associates and to assist with the understanding of the potential impact of the scheme.

During a stakeholder meeting on 23rd January 2025, I was pleased to learn that since our discussions in 2024 and the submission of our assessment, some modifications to the proposed line route have been made. I also thought that the suggestion of working toward a statement of common ground was very beneficial.

As of today, it seems that a much clearer picture is emerging in relation to how the proposed Norwich to Tilbury line route is expected to impact aerodromes. Of the 17 aerodromes we assessed, the majority seem to be low impact. There are however 3 aerodrome sites which are likely to be impacted to such an extent that further consideration is required to avoid the expected level of detrimental impact to them. These were discussed in some detail during the stakeholder meeting of 23rd January 2025. They are Tibenham, Priory Farm and Raydon Wings. I understand that at a recent targeted consultation, National Grid advised both Tibenham and Priory Farm that National Grid would engage more directly for further discussions. It would be beneficial to know if this has occurred yet and what the outcomes are.

To some extent, the impacts to Tibenham and Priory farm are interlinked and complex, owing to their close proximity to each other. Tibenham is an important gliding site. I was concerned by suggestions that glider tow aircraft had the performance to climb clear of the proposed powerline infrastructure. Indeed, this suggestion harked back to an earlier time in these discussions when aircraft performance was cited as the cure to any perceived obstacle issue that was identified, as referred to earlier. The reality is that the performance of both glider tow aircraft and gliders, are variable and based on many factors including meteorological conditions such as wind vectors, air temperature and air pressure, gross weight of tow aircraft including pilot and of course the glider and pilot which is being towed. Furthermore, gliders returning to Tibenham will face challenges in clearing the proposed line for a variety of reasons. Energy management height, speed and range from Tibenham are of course variable and will be impacted by other factors as described above. This has the potential to stop competition flying at Tibenham completely.

Priory Farm located 1km to the west of Tibenham. The mid point of Priory Farm’s runway is just 800m East of the proposed line route. As described in our July 2024 assessment, this will result in pilots including students directly overflying the lines at

low height and airspeed at multiple points within their airborne circuit pattern. The circuit pattern cannot be flipped to easterly directions because of Tibenham's proximity.

Of Raydon wings, I understand that there has been some adjustment to the proposed line route in proximity to the aerodrome. At present, I understand that owners of the site face an uncertain future because of the proposed line route. Raydon wings operate and accommodate vintage aircraft types such as Spitfires. This brings its own unique challenges. Pilots of such types fly a military style circuit pattern which is ovular in shape, rather than a conventional rectangular pattern. This is important for several reasons including the inherent reduced cockpit visibility of such types, energy management in the descent (height and speed). Additionally, such types tend to exhibit greater form drag (aerodynamic) tendency, making optimised approaches important. Part of this is flying the penultimate leg of the approach (base leg) into wind as they do today. At present, the aerodrome enables aerobatics and flight training and is looking to attract approved training organisations. The ability for the site to continue to operate as it does today, as well as to adapt and change over time, (a key requirement set out in the NPPF and General Aviation Strategy), is not assured. Part of the issue seems to be the close proximity of the sealing end compound of the proposed scheme, and related pylons to the aerodrome, just 300m. We understand that the terrain is slightly lower to the north of the old railway line. An alternative location for the sealing end compound might offer greater vertical clearances by moving infrastructure away from sensitive aviation factors. Further discussion with the aerodrome will be most valuable in finding a solution.

As this most important scheme progresses, it will be crucial that aerodrome safeguarding consideration is adequately understood by those considering final route alignment and those that provide aviation guidance. Both licensed and unlicensed general aviation aerodromes are encouraged to take steps to ensure that their sites are not impacted by adverse development. A misconception is that unlicensed sites do not require such consideration.

The fact is that the vast majority of general aviation aerodromes are unlicensed and are not officially safeguarded. This simply means they are not afforded a 'call in' opportunity in the event that a development they have raised concerns about, is permitted.

General aviation aerodromes may be licensed if they wish to accommodate certain movements. These might include some types of training or other level of service provision associated with their wider architecture, such as a higher number of more sophisticated / complex movements.

It should not be assumed that such aerodromes have not already achieved adequate levels of safeguarding. Or, that any changes to their environment caused by development, will not adversely impact their operation.

“The common aim of all safeguarding is to assess the implications of any development being proposed within the vicinity of an established aerodrome to ensure, as far as practicable, that the aerodrome and its surrounding airspace is not adversely impacted by the proposal, thus ensuring the continued safety of aircraft operating at the location.”²

In summary, it seems that a great deal has been achieved in identifying aspects of the Norwich to Tilbury route which are both likely and less likely to impact established aerodromes. It will be necessary to work closely with aerodrome owners and operators to ensure that these concerns are well understood to enable cost effective mitigation measures to be identified swiftly. Now that a clearer picture is emerging of the expected impact to these aerodromes, I strongly recommend swift engagement, as stated in previous commentary.

Should you wish to discuss this further, please don't hesitate to contact me.

Kind Regards

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CC to the following recipients

Ann Bartaby – GAAC
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Tony Curtis – Tibenham Aerodrome
John Gilder

² Safeguarding Scope – CAP 738 Safeguarding of Aerodromes

AERODROME SAFEGUARDING ADVICE NOTE

Date:	April 2024
Ref.:	Advice Note 1
Subject:	Aerodrome Safeguarding – An Overview
Action required:	For Information

1. Introduction

This is the first in a series of CAST (Combined Aerodrome Safeguarding Team) Advice Notes supported by the CAA. The purpose of which is to provide guidance to those who are considering carrying out development within the aerodrome safeguarded zones and the possible implications. This first Advice Note explains the process to be followed and highlights the relevant considerations. Additional Advice Notes cover other considerations with regard to the safeguarding of an aerodrome and provide further advice on how potential conflicts with safeguarding requirements can be overcome.

2. Safeguarded Aerodromes

Certain civil aerodromes, based on their importance to the national air transport system, are officially safeguarded in order to ensure that their operation is not impacted upon by proposed developments, see section 3 below. A similar official safeguarding system applies to certain military aerodromes, based on their strategic importance. See CAA Publication, 'CAP 738: Safeguarding of Aerodromes' available at www.caa.co.uk for further details.

HM Government advises that operators of aerodromes that are not officially safeguarded should take steps to protect their locations from the effects of possible adverse development by establishing an agreed consultation procedure between themselves and the Local Planning Authority. Please refer to GA1: 'Safeguarding Guidance to General Aviation Aerodrome Managers & Operators' & GA2: 'General Aviation Guidance for Local Planning Authorities', available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](http://CASTpublications|CivilAviationAuthority(caa.co.uk)).

3. What is Aerodrome Safeguarding?

Aerodrome safeguarding covers a number of aspects, and its purpose is to protect:

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- Airspace around the aerodrome by ensuring that no buildings or structures cause danger to aircraft either in the air or on the ground. This is achieved through an assessment of the Obstacle Limitation Surfaces (OLS) (see section 5.1).
- The integrity of Instrument Flight Procedures (IFPs) by preventing any infringements (see section 5.2).
- The integrity of radar and other electronic aids to navigation known as Communications Navigation & Surveillance Systems (CNS) by preventing reflections and diffractions of the radio signals (see section 5.3).
- Aeronautical lighting, such as approach and runway lighting, by ensuring that they are not obscured by any proposed development and to ensure that any proposed lighting cannot be confused for aeronautical ground lighting (see section 5.4).
- The aerodrome from any increased wildlife strike risk such as bird strikes, which pose a serious threat to flight safety (see section 5.5).
- Any construction processes from interfering with aerodrome operations through the production of dust/smoke, temporary lighting or construction equipment impacting on CNS, IFPs and/or infringing the OLS (see section 5.6).
- Aircraft from the risk of collision with obstacles through appropriate lighting (see section 5.7).
- Aircraft from the risk of windshear and turbulence (see section 5.8).
- Aircraft from the risk of glint and glare (see section 5.9).

All the above are considered by the aerodrome operator when assessing development proposals.

4. Planning Applications and the Aerodrome Safeguarding Process

The aerodrome safeguarding process for officially safeguarded aerodromes is a requirement under a direction made by the Secretary of State and is set out in ODPM/DfT Circular 01/2003 'Safeguarding of Aerodromes, Technical Sites & Military Explosives Storage Areas Direction'. For England this is available at www.gov.uk. The Scottish Circular is available at www.gov.scot.

Operators of officially safeguarded aerodromes and the Secretary of State for Defence will issue maps to Local Planning Authorities (LPAs) showing the safeguarded areas. These may extend out to 40 NM (nautical miles) (74.08km), depending on the procedures for each

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aerodrome. It is recommended that planners and developers contact the aerodrome concerned to clarify and obtain further details as required.

The aerodrome operator of officially safeguarded aerodromes is a 'Consultee' under the safeguarding circulars. Therefore, the LPA must consult with the aerodrome concerned regarding certain planning applications within the safeguarded area, for example, developments over certain heights, whether the development could be a wildlife hazard attractant, telecoms proposals or if the proposals contain wind turbines or solar panels, this list is not exhaustive. The response of the aerodrome operator must be considered when the LPA determines the planning application.

To enable an accurate assessment of a proposed development, the aerodrome operator requires certain information, for example:

- An accurate site plan of the proposed development with the site clearly outlined and six figure (Ordnance Survey) 'eastings' and 'northings' grid references
- The ground level of the site to an accuracy of 0.25m Above Ordnance Datum (AOD). Note: Heights AOD are those shown on Ordnance Survey maps as 'Above Mean Sea Level' AMSL.
- The layout, dimensions, materials and most importantly the heights of the proposed development above ground level
- Any landscaping and /or Sustainable Urban Drainage (SUDS) proposals and details of Biodiversity Net Gain (BNG) proposals
- Details of renewable energy schemes
- Any associated construction or development lighting details
- In some instances, the aerodrome operator may request that the developer commissions specialist studies to assess any potential impacts with regard to Communications Navigation & Surveillance Systems (CNS), glint and glare, Instrument Flight Procedures (IFPs) and windshear/turbulence for example. The studies will be at the cost of the developer.
- Any other information that may be deemed necessary to assess the application.

Non-officially safeguarded aerodromes are encouraged to agree a similar list with their Local Planning Authority (LPA).

The above-mentioned information should provide sufficient data to conduct an assessment on the possible impact of the application, however it may be necessary for the aerodrome operator to request further information to consider the effect of a proposed development on

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the aerodrome, it is important that the LPA consults the aerodrome operator at the earliest possible stage.

Outline Applications - If the proposals have been submitted to the LPA as an 'outline application', in certain circumstances the aerodrome operator may need to request further details, for example the proposed heights of the development to ensure that the proposals will not compromise the safe operation of the aerodrome. The LPAs themselves also have statutory powers to request further details from developers and applicants. This is covered in Annex 2 of the Safeguarding of Aerodromes Circulars.

If it is found after assessing the proposals that the proposed development will impact on aerodrome operations, amended plans or further information will be sought.

Following an assessment by a civil or military aerodrome operator, their response to the LPA will state one of the following:

No Objection with Informatives: If after assessment it is clear the development will not impact on operations, the aerodrome operator will respond with a 'no objection' to the LPA. They may request that Informatives be added to the planning approval for example making the developer aware that a specific crane permit or approval (issued by the aerodrome operator) may be required.

No Objection with Conditions: If after assessment it is felt that further safeguards or more details are required, the aerodrome operator will respond to the LPA and will request that conditions be added to the planning approval. For example, requiring a full landscaping scheme, a Wildlife/Bird Hazard Management Plan, drainage details etc be submitted.

Objection: Should it not be possible to arrive at a suitable outcome, through amendments to the proposed development, and that the risk to air safety remains, the aerodrome operator will submit an objection to the LPA clearly stating their reasons.

Holding Objection: A holding objection could be submitted by the aerodrome operator if sufficient details have not been provided to enable them to assess the proposals to ensure that they will not compromise air safety. This is covered in Annex 2 of the Safeguarding of Aerodromes Circulars available at www.gov.uk and www.gov.scot.

Should the LPA propose to grant planning permission contrary to the advice of the aerodrome operator of an officially safeguarded aerodrome, they must then notify the aerodrome operator and the CAA or the Secretary of State for Defence as applicable. In Scotland, the Scottish Ministers must also be notified. The LPA may not grant permission before the expiry

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of 28 days. For full details of the procedure see Annex 1 of the Safeguarding Circulars available at www.gov.uk and www.gov.scot.

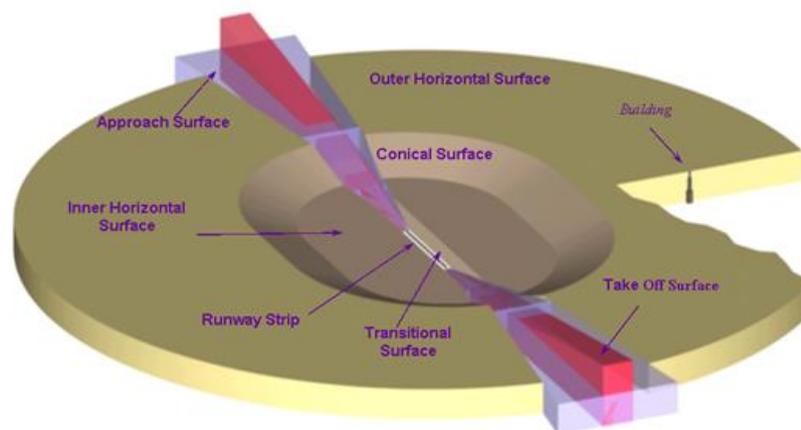
Certain types of development are permitted under the Town & Country Planning (General Permitted Development) Order or comparable regulations. In some areas, LPA's have agreed to implement an 'Article 4 Direction' (which forms part of the Town & Country Planning Legislation) to restrict certain permitted development (PD) rights where they could impact on the safe operation of aerodromes.

Where an LPA receives a pre planning application query, the LPA should refer the developer to the aerodrome operator for safeguarding advice.

5. Aerodrome Safeguarding Considerations

5.1 Obstacle Limitation Surfaces (OLS)

Obstacle Limitation Surfaces (OLS) surround the aerodrome and define the limits to which objects may project into airspace. They take the form of a complex set of 3 dimensional surfaces, which extend upwards and outwards from the runway(s) encompassing the critical airspace in which key air traffic and flight procedures associated with the aerodrome are conducted.



***Obstacle Limitation Surfaces (OLS) Diagram
(For Guidance Only)***

For further information please refer to CAA Publications, 'CAP 738: Safeguarding of Aerodromes', 'CAP 168: Licensing of Aerodromes' and 'Aerodromes - UK Regulation (EU) 139/2014' available at www.caa.co.uk or contact your local aerodrome.

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In accordance with the applicable civil aviation regulatory requirements, aerodromes are required to take all reasonable steps to ensure the aerodrome and its airspace are safe for use by aircraft. Any developments need to be assessed to ensure that they do not infringe any of the OLS as this could endanger aircraft. It is important that accurate information on the location and height of a proposed development within the safeguarded area is provided.

The height of vehicles must be considered when evaluating roads and parking areas within proposed developments, unless any other structure associated with the proposed development is taller. Railways are treated in a similar manner. Further details of this can be found in Annex 2 of the Safeguarding Circulars available at www.gov.uk and www.gov.scot

5.2 Instrument Flight Procedures (IFPs)

Instrument flight procedures are a series of predetermined manoeuvres by reference to flight instruments or satellite-based way points. An IFP's primary purpose is to provide clearance from obstacles and allow safe aircraft operations to/from the runway into the local airspace and to the national route network.

Where the aerodrome has established IFPs it will be necessary to ensure the proposal does not impact on their design. It cannot be assumed that the OLS will provide sufficient protection for IFPs.

If after an initial assessment it is found that there could be a potential impact on IFPs a specialist study must be undertaken by an Approved Procedure Design Organisation (APDO), the developer will be expected to meet the cost. A list of APDO's can be found on the CAA website at www.caa.co.uk. Please see also CAA Publication 'CAP 785B: Implementation and Safeguarding of IFPs in the UK' available at www.caa.co.uk.

5.3 Communications Navigation & Surveillance Systems (CNS)

In low visibility, pilots are entirely dependent on the accuracy of the information displayed on the instruments in the aircraft cockpit to navigate, land and take off. Similarly, air traffic controllers rely on the accuracy of the information displayed on the radar screens to maintain safe separation between aircraft. It is critical, that this information is not distorted by interference to radar signals used in the operation of navigational aids, for example by:

- Radio frequency interference from other sources of radio emissions, such as telecoms installations and 5G in particular.
- Radio signal reflections or diffractions caused by physical objects, such as buildings / structures, cranes or wind turbines.

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A recent and less obvious source of radio frequency interference is through renewable energy sources such as wind turbines and solar installations. The distance within which an installation may impact will vary from aerodrome to aerodrome and ideally needs to be assessed prior to submitting through planning.

Further guidance can be found in CAA Publication 'CAP 670: Air Traffic Services Safety Requirements' available at www.caa.co.uk.

5.4 Aeronautical Lighting

Visual aids, consisting primarily of aeronautical lighting, assist pilots to line up the aircraft with the runway when approaching the aerodrome to land. Any proposed development must be assessed by the aerodrome operator to ensure that:

- Any aeronautical lighting is not obscured.
- Any proposed lighting cannot be confused with aeronautical lighting, for example replicating the same patterns or colours.
- Any proposed development must not contain a high level of background lighting which could diminish the effectiveness of aeronautical lighting.
- Any proposed lighting must not have the potential for glare or dazzle to pilots.

For further information with regard to the potential impact on aeronautical lighting and glare or dazzle to pilots please refer to Advice Note 2 'Lighting Near Aerodromes', available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](http://CASTpublications | Civil Aviation Authority (caa.co.uk)).

Temporary outdoor lighting displays, particularly those involving lasers, searchlights, fireworks, sky lanterns & balloons in the vicinity of the aerodrome should be notified to the CAA and the aerodrome concerned. Please refer to Advice Note 2 'Lighting Near Aerodromes' and CAA Publication 'CAP 736: Operation of Directed Light, Fireworks, Toy Balloons and Sky Lanterns within UK Airspace' available at www.caa.co.uk.

5.5 Wildlife Hazard Management

Aircraft are vulnerable to wildlife strike risk, in particular bird strike. Birds can move into the path of an aircraft, because they are crossing the airfield or its approaches as they move between sites in the locality. Aircraft are particularly vulnerable to collisions with large birds such as geese, swans and flocks of birds such as starling, gulls, pigeons.

Birds and other wildlife may be attracted to the vicinity of an aerodrome by various types of development, including waste management sites, sewage works, mineral workings, water bodies, nature reserves, large landscaping schemes and any works to achieve biodiversity net

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gain (BNG), large areas of flat/shallow pitched or green roofs, large catering outlets and large buildings with perching/roosting opportunities for birds.

The objective of aerodrome safeguarding is to prevent any increase in, and where possible reduce, the wildlife strike risk at an aerodrome.

For further information with regard to the potential wildlife hazards as a result of a proposed development, please refer to Advice Note 3 'Wildlife Hazards around Aerodromes' available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#).

5.6 Construction Management

Safeguarding aspects of a proposed development do not end with the grant of planning permission. The methods and equipment to be employed during construction may also need to be agreed, particularly if cranes or other tall construction equipment will be involved as these will be taller than the proposed development.

For a project close to an aerodrome or under the approach paths, a construction management strategy will need to be produced to ensure construction does not prejudice the safe operation of the aerodrome. In particular, but not exclusively, it should address the use of cranes or other tall construction equipment, activities likely to produce dust or smoke, temporary lighting, impact on radar or other navigational aids, storage of materials in compliance with height limitations and site management and dispersal of waste to prevent the attraction of birds.

Any equipment that emits electro magnetic frequencies has the potential to interfere with CNS systems (See section 5.3) utilised by the airport and will need to be assessed by the aerodrome operator.

Whether or not part of a construction management strategy, crane operators attention should be brought to the 'British Standard Code of Practice for the Safe Use of Cranes, BS 7121: Part 1' and CAA Publication 'CAP 1096: Guidance to Crane Users and Notification' available at www.caa.co.uk. Also, refer to Advice Note 4 'Cranes & Other Construction Issues' available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#).

5.7 Lighting of Obstacles

The addition of warning lights to obstacles is intended to indicate the presence of hazards to aircraft operating visually at low levels while taking off or landing at an aerodrome, particularly at night or in conditions of poor daylight visibility. The aerodrome safeguarding process will determine whether a proposed development requires to be fitted with one or

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more obstacle lights. This is applicable to temporary obstacles, such as cranes, as well as to permanent structures.

Where it is deemed necessary that obstacle light(s) would be required it should preferably be agreed before planning permission is granted or alternatively by a condition that can be attached to the planning permission. The condition should state the characteristics of the light(s) required. For further information with regard to the lighting of obstacles please refer to CAA Publications, 'CAP 1096: Guidance to Crane Users and Notification', 'CAP 738: Safeguarding of Aerodromes', 'CAP 168: Licensing of Aerodromes' and Aerodromes UK Regulations (EU) 139/2014 all available at www.caa.co.uk or contact the aerodrome operator.

Further details can also be found in Advice Note 2 'Lighting Near Aerodromes', available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](http://CASTpublications|CivilAviationAuthority(caa.co.uk)).

5.8 Windshear and Turbulence

Developments close to the aerodrome, depending on their size and location have the potential to cause windshear and turbulence that could be hazardous to aircraft operations.

Many combinations of built or natural landscaping can be the cause of this for example but are not limited to:

- Topography
- Buildings/structures
- Trees
- Chimney emissions

The above can create low level wind shear (horizontal and vertical) and vortices.

Turbulence is caused by a rapid irregular motion of air. If turbulence is severe and unexpected, sudden changes in the flight path of an aircraft may occur.

If after assessment there could be potential for turbulence, the aerodrome operator will request that a specialist study is commissioned so that any impacts can be determined, the cost of which will need to be met by the developer.

5.9 Glint and Glare

Developments proposed either on-aerodrome or off-aerodrome may have an impact on aerodrome operations through glint and glare and/or from the deflection of radar. Glint and

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glare can emanate from several sources, including buildings or structures with large areas of glass or shiny materials, solar panels, water bodies, vehicle windscreens etc. Should glint and glare occur it can impact on personnel in the air traffic control tower and pilots of aircraft on final approach to the runways.

If after initial assessment there could be potential for glint and/or glare the aerodrome operator will request that an aviation specific study is commissioned bespoke to the particular aerodrome, the cost of which will need to be met by the developer.

For further information see 'CAP 738: Safeguarding of Aerodromes' available at www.caa.co.uk and in Advice Note 5 'Renewable Energy Developments: Solar Photovoltaic Developments' available at [CAST publications | Civil Aviation Authority \(caa.co.uk\)](#).

6. Public Safety Zones (PSZ)

Public Safety Zones are areas of land at the ends of the runways at the busiest aerodromes within which development is restricted to control the number of people on the ground at risk of death or injury in the event of an aircraft accident on take-off or landing.

The policy objective governing the restriction of development near civil aerodromes is that there should be no increase in the number of people living, working or congregating in PSZs and that over time, the number should be reduced as circumstances allow.

The PSZs are administered by the Civil Aviation Authority (CAA), who have taken over responsibility from the DfT for the implementation of new PSZs and the review and update of existing PSZs.

It is the responsibility of the Local Planning Authority (LPA) to assess proposals within a PSZ.

Further details can be found in the DfT Policy Paper 'Control of development in airport public safety zones' and is available at www.gov.uk or contact the aerodrome concerned to check whether your site is situated within a PSZ.

With regard to Scotland the relevant regulations are 'Planning Circular: Control of development in airport public safety zones', available at www.gov.scot.

7. Pre-Planning Application Advice With Regard to Aerodrome Safeguarding

Prior to a formal planning application being submitted, it is advisable to contact the aerodrome operator concerned for informal advice on how to comply with the aerodrome

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safeguarding requirements. The aerodrome operator's advice will depend on the level of detail provided. If it believes a detailed study is required in relation to specialist aspects such as the potential impact on CNS, bird hazard management etc, it may advise that a suitable consultant be engaged so that their reports can be included with any subsequent planning application.

Any advice would be informal and without prejudice to detailed consideration of any future planning application(s). The absence of any safeguarding concerns should not be construed as support for any proposed development(s).

It is anticipated that aerodromes may make a charge for pre application assessments.

This advice note has been revised and updated by the Combined Aerodrome Safeguarding Team (CAST) from that produced by the Airport Operators Association (Safeguarding Working Group) with the support of the CAA. Its contents may be reproduced as long as the source is acknowledged.

Further CAST Safeguarding Information is available at <https://www.caa.co.uk/combined-aerodrome-safeguarding-team-cast/>.



AERODROME SAFEGUARDING GUIDANCE NOTE

C \| A \| S \| T



Combined Aerodrome Safeguarding Team

GA2: General Aviation Guidance for
Local Planning Authorities



1 INTRODUCTION

This Guidance Note has been prepared by the General Aviation (GA) Focus Group of the Combined Aerodrome Safeguarding Team (CAST), supported by the CAA. The purpose of the Guidance Note series is to provide guidance to aerodrome operators.

CAST is a forum for aerodrome safeguarding stakeholders with representatives from government organisations, aviation and the private sector. The content of Guidance Notes is intended to provide guidance only and does not necessarily constitute the position of CAST members.



2 GENERAL AVIATION FOCUS GROUP GUIDANCE FOR LOCAL PLANNING AUTHORITIES

The CAA has set up the ‘Combined Aerodrome Safeguarding Team’ involving professionals from across the industry. Its purpose is to improve the ‘safeguarding’ of airports and aerodromes across the country. The General Aviation (GA) Focus Group is concentrating on smaller GA aerodromes.

Major airports are officially safeguarded under Circular 1/2003 but the CAA has always encouraged GA aerodromes to make unofficial arrangements with local planning authorities based on the same principles.

The CAST goal now is to ensure that all licensed aerodromes have a Safeguarding Plan lodged with their LPA and also a safeguarding map showing areas around an aerodrome of particular significance. The CAA’s CAP738 also aims to encourage all unlicensed aerodromes to follow the same process.

Aerodrome Safeguarding is intended to protect aviation activity from development which could cause safety problems – such as tall structures, reflective surfaces and trees or waste facilities that could attract birds. It is also there to ensure that other development does not take place in an inappropriate area – such as where there might be a risk of aircraft accidents happening or where noise could harm residential amenity.

Clearly, for both the aerodrome and its environs, development pressure is increasing in many areas and so the safeguarding process is becoming more challenging.

The GA Focus Group is encouraging Aerodrome Operators to engage with their LPA and advising them of what they need to do. CAST is also able to offer advice and possibly training to LPAs.

The emphasis on digitisation offers opportunities to make safeguarding plans more widely available to make the information

more accessible to developers – sometimes they do not pick up on safeguarding until very late in the planning application process.

Issues of importance to aerodrome safeguarding are changing all the time – for example the major push on afforestation or the increase in solar farms are more relevant than they were. Also, not all aerodrome activity has the same constraints – gliding for example may have less predictable implications and busy pilot training sites with a high proportion of single-engine aircraft have specific safeguarding needs.

The importance of this process is underlined by the increased policy protection and encouragement given to general aviation aerodromes in the NPPF.

Local Planning Authorities are therefore encouraged to work with GA aerodromes in their area, by identifying airfields in Local Plans and constraints mapping and engaging with the Aerodrome in connection with relevant planning and related applications.

The GA Focus Group would welcome giving assistance with any queries they wish to raise.



This Guidance Note has been produced for information only by the GA Focus Group of CAST (Combined Aerodrome Safeguarding Team) with the support of the CAA.

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AERODROME SAFEGUARDING ALERT



1 CAST

The Combined Aerodrome Safeguarding Team (CAST) is made up of industry stakeholders including aerodrome authorities, planning experts and a range of expertise from within the UK CAA. The purpose of CAST is to dedicate focus and expertise to the many safeguarding related challenges our aerodromes face. For further information please see [CAST Introduction | Civil Aviation Authority \(caa.co.uk\)](#).



2 INTRODUCTION

National Grid are currently undertaking significant projects to expand the country's power distribution network. These projects feed into the "great grid update", described by National Grid as "*the largest overhaul of the electricity grid in generations.*" According to National Grid, more of our energy will come from renewable sources including offshore. The projects include reinforcement of existing high voltage power network in areas which includes new over ground pylons, as well as completely new lines in other areas. There are undersea elements and the replacement of existing 1960's cabling underground elsewhere.

CAST is aware that elements of the schemes could be disruptive to general aviation operations. The CAA's Airfield Advisory Team (AAT¹) is working closely with National Grid and their appointed aviation consultants to ensure that they are aware of the potential impacts to aviation safety although this has focused principally on the Norwich to Tilbury project so far. Further support is being provided by the General Aviation Awareness Council (GAAC²).

As these important national infrastructure projects develop and gather pace, it will be important to develop a detailed understanding of expected challenges and to ensure effective lines of communication are maintained with those leading the projects. Such challenges are likely to be nuanced. They could be as clear as a new vertical obstruction (pylon) in close proximity to an aerodrome, or high voltage lines suspended in a new area making flight planning more challenging, particularly for gliders for example.

More details can be found at: www.nationalgrid.com/the-great-grid-upgrade. We include some key extracts from the National Grid website in an annex to this alert.

¹ aat@caa.co.uk

² info@gaac.org.uk



3 WHAT SHOULD I DO?

As described earlier, it is likely that aerodromes will be affected as a result of this scheme. As such, it may be beneficial to carry out an impact analysis of your operational requirements.

- Will airborne tracks be impacted by new infrastructure? If so, to what extent? Can this be simply and reasonably mitigated?
- Will gliding operations face new challenges (think task completion, routes, land outs etc)?
- Will commencement of works associated with the scheme impact your operation at all?

If you need assistance, please contact us³ – we can provide advice and, if needed recommend technical expertise suited to your particular situation.

In addition to contacting us, it may well be worth putting your concerns to the Local Planning Authority and National Grid by writing a letter, and you may well find the following wording a useful template:

Aerodrome safeguarding is the process used to ensure the safety of aircraft manoeuvring on the ground, taking off, landing or flying in the vicinity of aerodromes. It is vital that the safe operation is not impacted upon by structures or buildings which have the potential to infringe the Obstacle Limitation Surfaces (OLS) or to impact or Communication, Navigation & Surveillance (CNS) equipment utilised by the airport. Lighting can sometimes be distracting or confusing and some developments have the potential to increase the bird strike risk to the aerodrome.

Aerodrome Safeguarding is embedded in the Town & Country Planning Process by way of ODPM/DfT Circular 01/2003 'Safeguarding of aerodromes, Technical Sites & Military explosives Storage Areas Direction 2002 which can be found at [Safeguarding aerodromes, technical sites and military explosives storage areas - GOV.UK \(www.gov.uk\)](http://www.gov.uk)

The Government's National Planning Policy Framework (NPPF) give specific support to General Aviation airfields. Paragraph 110(f) states 'Planning policies should....recognise the importance of maintaining a national network of general aviation airfields, and their need to adapt and change over time – taking into account their economic value in serving business, leisure, training

³ cast@caa.co.uk

and emergency service needs, and the Government's General Aviation Strategy'

The NPPF also specifically supports sports venues and as Sport England identifies all GA aviation as 'sport' this reinforces the importance of GA aerodromes.

With regard to the proposals for the grid update for the area covering, they have the potential to impact on the safe operation of aerodrome by way of: (list points)

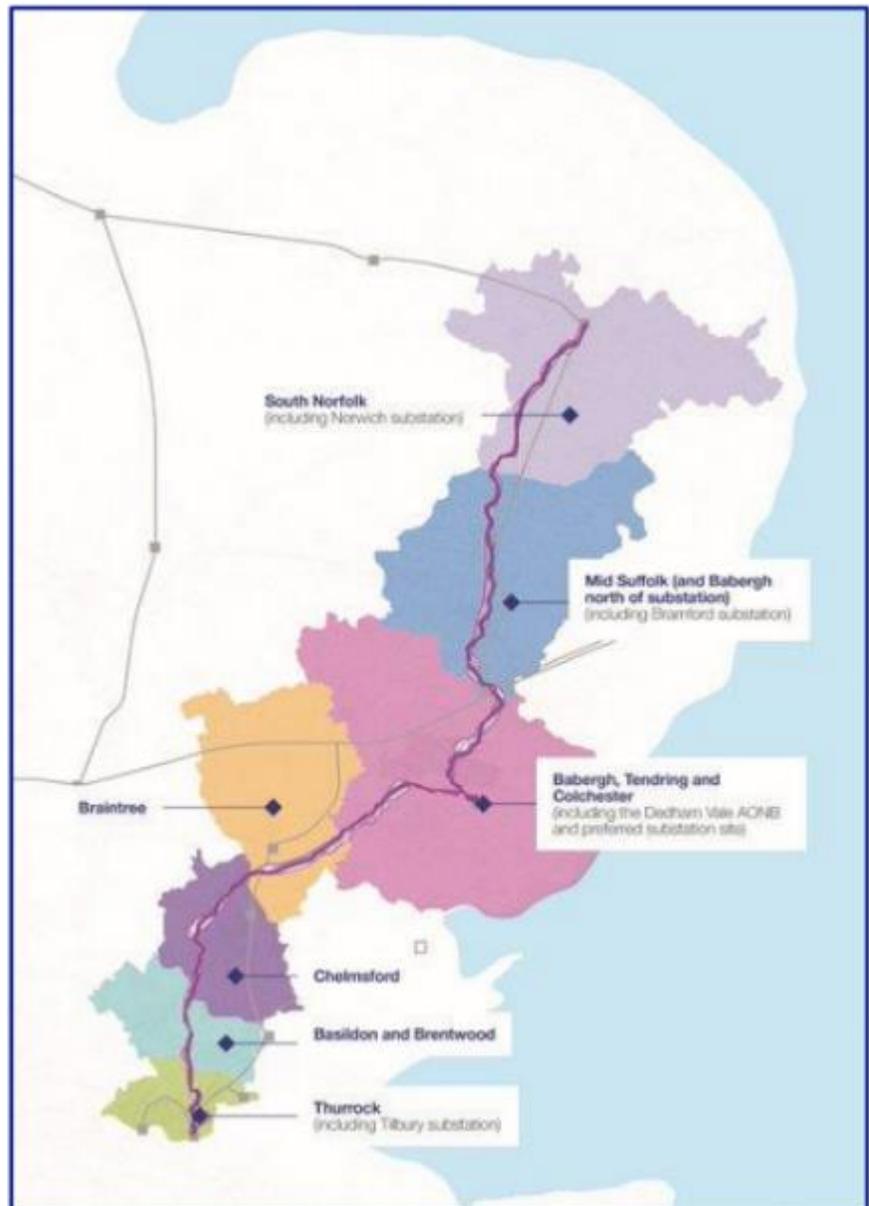


ANNEX: EXCERPTS FROM NATIONAL GRID WEBSITE

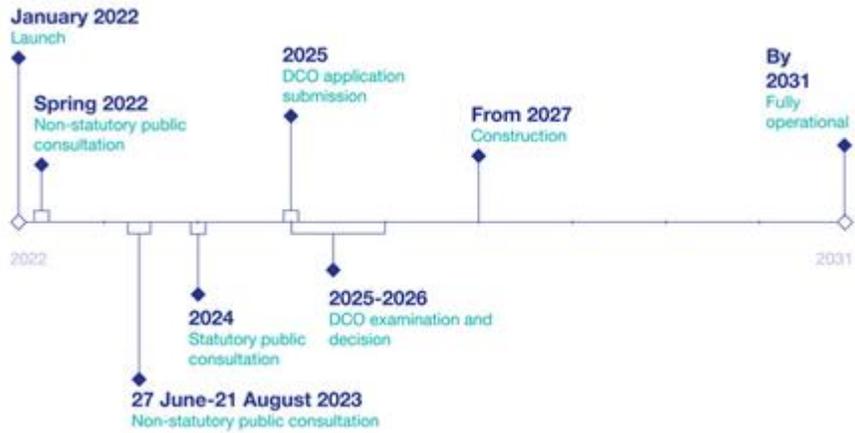
Norwich to Tilbury

Norwich to Tilbury is a proposal by National Grid Electricity Transmission (National Grid) to reinforce the high voltage power network in East Anglia between the existing substations at Norwich Main in Norfolk, Bramford in Suffolk, and Tilbury in Essex, as well as connect new offshore wind generation.”

“We are proposing to build approximately 183 km of new electricity transmission reinforcement between Norwich and Tilbury. This will be made up mostly of overhead line and pylons, along with some underground cables and a new 400 kV substation.



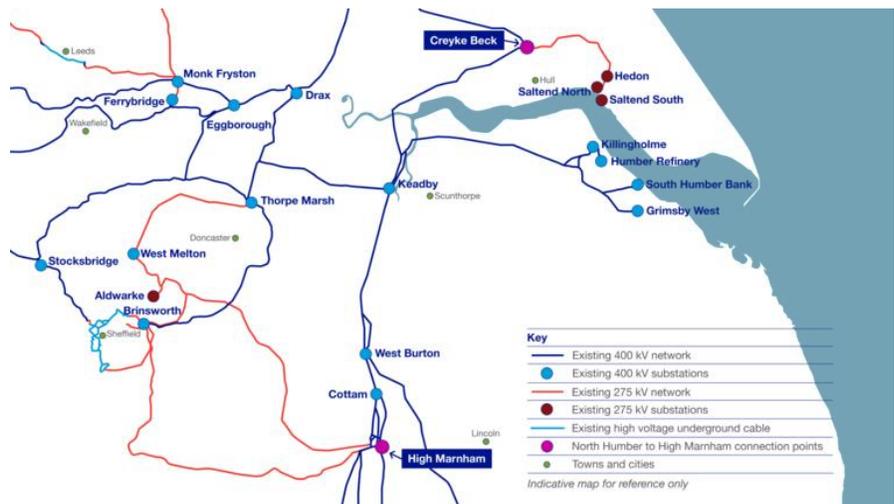
Project Map – 2022 Non statutory Consultation feedback report⁴



Norwich to Tilbury – Project timeline

North Humber to High Marnham

Proposing to build a new high voltage electricity transmission line and associated works between a new substation north of Hull at Creyke Beck in the East Riding of Yorkshire and a new substation at High Marnham in Nottinghamshire.



Project map

Grimsby to Walpole

The Grimsby to Walpole upgrade is a proposal to build a new high voltage overhead line in Lincolnshire, including building new pylons and new substations.

The Grimsby to Walpole upgrade will include building a new 400,000 volt (400kV) overhead electricity transmission line from proposed new substations to be built in the vicinity of Grimsby West and the Walpole area, via two new substations in land from the Lincolnshire coast, to connect proposed new sources of renewable

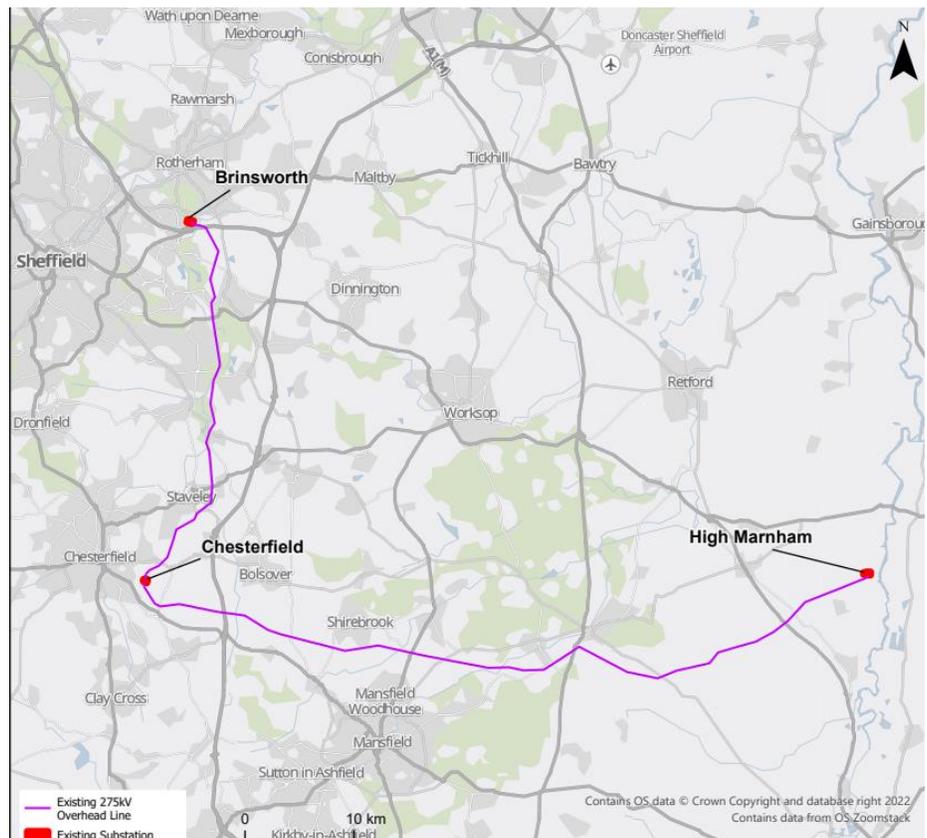
⁴ Great Grid Update - June 2023 issue number AENC-NG-CNS-REP-0003

energy to the new line.

Brinsworth to High Marnham

We propose an uprating of the existing 275kV overhead lines to facilitate a transmission load of 400kV and the development of three new substations to help carry more green power from the North of England to the Midlands. Doing so means we can get the most out of the existing network before needing new lines and, therefore, at a better cost for the consumer, while providing a larger, more resilient supply of electricity.

We are at a very early stage in the development of the project, and are currently contacting landowners and other key stakeholders in the Spring 2023 to discuss the requirement for surveys and land access to support the development of our proposal. Public consultations will be arranged in areas of proposed construction, and we will publicise the venues and dates in due course. These are likely to start later this year.



Project map

Bramford to Twinstead

We need to build a network reinforcement between Bramford Substation in Suffolk and Twinstead Tee in Essex. Our proposals include constructing up to 18 km of overhead line and around 11 km of underground cable (through the Dedham Vale AONB and in the Stour Valley).

Acceptance of the application marks the completion of the second stage (acceptance) and the beginning of the pre-examination stage, during which anyone with an interest in the project will have an opportunity to register as an Interested Party by making a Relevant Representation. The period to register as an Interested Party by making a relevant representation closes at 23:59 on 18 July 2023. Representations can be submitted online through the Bramford to Twinstead Reinforcement page of the Planning Inspectorate's website for the duration of the registration period.

Following this, the Planning Inspectorate will hold a Preliminary Meeting, followed by a detailed examination of the application. This examination will be conducted by an Examining Inspector (or panel of Inspectors) appointed by the Planning Inspectorate.

Yorkshire Green

The Yorkshire GREEN project proposes new infrastructure including substations, overhead lines, underground cables and cable sealing end compounds (where underground cables meet overhead lines). It would also include work to upgrade the existing transmission system, including some installation of new equipment at existing sites.



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