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Relevant Representation Reference Number [redacted]

Response to ExQ2 - GEN 2.1
Final deadlines and Statements of Common Ground

Introduction

Since receipt of the first draft of the SoCG in June 2025 we were concerned with some of the unsubstantiated claims and generalisations contained within it

As requested by the Applicant we identified areas of disagreement, deleted errors and added some omissions

Although most of our changes were added in the areas requested, some were altered and some moved by the Applicant to elsewhere within the document claiming them to be discussion and not factual points

When the Applicant requested a 4th consultation in August 2025, we reviewed the agenda with them and they agreed to provide written statements on route development rationale, alternative costings and their proposed mitigation recommendations, all of which would assist in developing the SoCG and AIA

We have, in a previous response, advised that the Applicant chose to withhold that agreed information from the August 2025 consultation

Without that pertinent information we were unable to review and resolve the areas of disagreement in the draft SoCG and AIA in a meaningful way. That information continues to be withheld

We have repeatedly attempted to work with the Applicant and have advised that once the withheld information has been provided and reviewed by NGC we would be able to meet at

relatively short notice to review/complete both documents. Our last email was in mid-April, there has been no reply, the information is still being withheld and our questions remain unanswered

However, the latest version of the draft SoCG dated May 2026, REP4-249 claims in section 3 paragraph 7.2 that no information has been withheld then where is it? This version has been produced by the Applicant without reference to or input from NGC and we do not agree with the content. The agreed information was withheld from the August 2025 consultation but the inference of paragraph 7.2 is that it is now available in which case why does the Applicant not resubmit this to NGC and allow the consultation to progress?

Examples of SoCG and AIA issues

1 - Compliance with EN-1

The Applicant states in the latest draft SoCG REP4-249 section 3 paragraph 7.1 that they comply with NPS EN-1 which as the ExA knows states that

> *'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'*

The two salient points within that are 'developed collaboratively' and 'not adversely affected'

Developed collaboratively

> Collaboration – Can be defined as working together as equals to co-create a solution
>
> In this scenario our interpretation would have involved the Applicant meeting with NGC, discussing the broad requirements, reviewing the aviation safety issues, identifying the design issues and their limitations and reaching a consensus view. There was no collaboration with NGC prior to publication of the proposed route
>
> The Applicant made no attempt to engage with NGC prior to 2023 which gave the impression that the route was imposed upon us without reference to any aviation safety issues being considered
>
> The first meeting with NGC was in the summer of 2023 as part of the round of non-statutory consultations in which we were told that the route had been determined and our only option was to raise objections.

Despite requesting an electronic version of the route at that consultation, it took until the summer of 2025 before it was provided in order that we could more accurately determine the aviation safety risks involved

Therefore, in terms of compliance with EN-1, the Applicant fails

Adversely affected

During that first consultation many objections were raised and have continued to be referred to by various professional aviation bodies in the intervening years but the approach taken by the Applicant has until now always been that there are no aviation safety risks associated with the proposed route alignment

However, in their response REP4-302 table 2.2 Item 5 (Aviation Safety), 5.1 Aviation Discussion, the Applicant states when responding to Engine Failure After Take Off (EFATO) incidents that

'The Applicant accepts that there is a period in the middle where hitting the line is a possibility'

Which is something of an understatement since not only is it a possibility, it is an inevitability as the pilot would have no other option.

As mentioned in a previous response, in 50 years of flying I have witnessed two incidents where aircraft collided with cables. The outcome was two aircraft written off, two fatalities, one in a wheelchair for life and one with some degree of recovery

Therefore, in terms of compliance with EN-1, the Applicant fails again

Elsewhere in EN-1, para 4.2.15 refers to the impacts of CNP infrastructure where the unacceptable risks to human health provide for an exception to the presumption of consent. We believe the proximity to the airfield and the level of aviation safety risk qualifies as an exception to the presumption of consent

So how does the failure to collaborate with aviation stakeholders at the Project's inception, the failure to consult in a meaningful way with regard to adverse effects and the admission that hitting the line in the event of an EFATO incident could happen show compliance with EN-1?

In the 'Deadline for Resolution' column of the draft SoCG referred to above when considering their claim to be EN-1 compliant the Applicant has written

'Considered unlikely to resolve bilaterally. For the Examining Authority to assess'.

We do not accept that statement since it emphasises the denial by the Applicant of their responsibility with respect to aviation safety as exhibited by them throughout the project.

The Project **does not comply** with EN-1 as claimed and the Applicant must remove that claim from the SoCG until they propose design-led mitigation measures to ensure that it does.

2 – Chronology

Within the draft SoCG the Applicant details the chronology of the project with regard to their involvement with NGC

> *The chronology of National Grid's consultation approach, including engagement with Tibenham aerodrome to date, and the evolution of the Project's design is summarised as follows:*
> *2022*
> *— National Grid presented information on how the project was evolving from the evaluation of strategic options to a preliminary preferred graduated swathe within which new infrastructure (pylons and underground cables) could be located as well as a proposed new substation site on the Tendring Peninsula, as described within the 7.18 2022 - Corridor and Preliminary Routeing and Siting Study [APP-356]*
> *— 21 April – 16 June non-statutory consultation on the Preferred Route Corridor graduated swathe*

The wording is such that the implication is that Tibenham, along with other airfields, were involved in the 2022 round of consultations. That is completely untrue, NGC were not consulted in 2022 yet the Applicant refused to clarify that in the draft SoCG

3 – Aviation Impact Assessment

In 2025 the CAA AAT wrote to the Applicant advising

> *'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'*

Yet only a few weeks after receipt in 2025 the Applicant published their Aviation Impact Assessment that ignored that advice and concluded that

> *'An aerotow combination would have sufficient room to manoeuvre away from the OHL after take-off'*

In an earlier submission, REP2-290, the Applicant drew the ExA's attention to CAP 1059 to which we responded in our submission REP3-128 referencing their paragraphs 7 and 8 (Aviation safety risks).

We applied the EFATO scenario to the Risk Tolerability Matrix described in CAP 1059, which is summarised in appendix C of REP3-128, with the following results

Risk severity classification – Catastrophic
Risk likelihood classification – Remote to Occasional
Risk conclusion – Unacceptable

Which within the guidelines of CAP 1059 means that

The risk is unacceptable and major mitigation measures are required to reduce the level of risk to as low as reasonably practicable

So how does the decision to ignore CAA AAT guidelines on the one hand and failure to reach a satisfactory conclusion within the Risk Tolerability Matrix on the other justify not proposing design-led mitigation measures to resolve the issue?

The next steps

In accordance with the directive from the ExA the Applicant has now requested a further meeting in their email dated May 26

'we seek to progress outstanding issues'

But fails to address the main outstanding issue identified in my email of mid-April or answer any of the questions and whilst that information remains outstanding, we believe any meeting will just be a repeat of previous discussions and not affect the status quo

In that email, reference is also made to

'we do not consider that the identified minor infringements of the Tibenham OLS (IHS) nor forced landing risks would justify substantial Project design changes'

Which is the first time I have heard the potential for fatal accidents being described as 'minor infringements'

Together with

'We also note use of low height pylons has not, to date, been sought by yourselves'

Which serves to show the apparent contempt the Applicant took with regard to the consultation in 2024 where the issue of low-height pylons was discussed and rejected on the grounds that it was still an unacceptable obstacle in an EFATO situation

Whilst the email does make reference to the need to discuss mitigation measures the nature of those proposed measures are not identified. The Applicant has repeatedly been advised that mitigation in the form of operational procedure changes or visibility aids is not acceptable and design-led changes in the form of re-alignment or undergrounding is the only way forward

Had the Applicant collaborated with NGC, as required by EN-1, minor changes (underground or re-alignment) to the design could have been made to remove all our aviation safety concerns.

Had the Applicant taken note in the limited consultation discussions where in 2024 the issue of low height pylons was discussed and rejected, they would not be raising the question now at this late stage

The decision not to collaborate, not to consult in a meaningful way and to drag the timescale out to such an extent is a choice made by the Applicant

Conclusions

The aviation safety issues that would result from the proximity of the proposed route alignment existed prior to any design being developed. This is acknowledged within EN-1 by identifying the need for collaboration during that design stage – This did not take place

The aviation safety issues resulting from the proximity of the proposed route alignment following publication of the draft alignment still existed but due to a lack of meaningful engagement were not addressed by the Applicant. This is contrary to the guidance within EN-1 on adversely affecting aviation safety and operations

The CAA's Risk Tolerability Matrix (CAP 1059) identifies the fatal accident safety risk as unacceptable, requiring major mitigation measures which the Applicant appears to dismiss on the grounds that the project is too far advanced

The aviation safety issues resulting from the proximity of the proposed route alignment still exist and the latest emails indicate that the Applicant is attempting to coerce the various Aviation Stakeholders into compromising safety margins to cover their failures in managing the project

The project timescale may be well advanced but the failure of the Applicant to address the aviation safety concerns expressed by the various aviation stakeholders in a timely manner is of their own making and is their responsibility to correct

For the avoidance of doubt, NGC are prepared to meet in person at Tibenham at short notice once the withheld information has been received and reviewed by them. The purpose of the meeting would then be to produce new versions of the SoCG and AIA that encompass the safety concerns of NGC whilst developing documents that comply with the advice and guidance of National Planning Policies, the CAA and other aviation bodies

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Response to SS 2.x Questions

SS 2.3 Aviation safety – Consultation and engagement

NGC's response to ExQ2 GEN 2.1 identifies a number of examples of the issues preventing acceptance of the draft SoCG or AIA

Our final paragraph in that response states

> *For the avoidance of doubt, NGC are prepared to meet in person at Tibenham at short notice once the withheld information has been received and reviewed by them. The purpose of the meeting would then be to produce new versions of the SoCG and AIA that encompass the safety concerns of NGC whilst developing documents that comply with the advice and guidance of National Planning Policies, the CAA and other aviation bodies*

As an example, our GEN 2.1 response in reference to the AIA states

> In 2025 the CAA AAT wrote to the Applicant advising
>
> > *'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'*
>
> Yet only a few months after receipt in 2025 the Applicant published their Aviation Impact Assessment that ignored that advice and concluded that
>
> > *'An aerotow combination would have sufficient room to manoeuvre away from the OHL after take-off'*

In mid-2025 we believed nothing would be gained from a continuation of this approach where expert advice from such as the CAA AAT was being ignored without a detailed explanation from the Applicant as to why. This is the position we were in last July when the Applicant agreed to submit written detailed explanations in advance of the August 2025 consultation which would have enabled progression of both the SoCG and AIA. In the event the Applicant chose to withhold the information and continues to do so

We have responded to the Applicant's email of May 26 indicating the need for them to supply that withheld information together with answers to the questions within our email of April 16 but as yet have not received a reply

SS 2.4 Aviation safety resolution – Agent of change

A reference in the ExA ExQ2 question was made to

> *'The matter of public safety is one for the aerodrome operator and that insofar as operations are alleged by an operator to be unsafe then they will not happen and the operator will cease that element of the operation'*

The primary legislation governing aviation safety and aircraft operations in UK airspace is the Air Navigation Order 2016 (ANO 2016). It is enforced by the CAA and covers all non-EU regulated aviation matters to ensure high standards of airworthiness, crew licensing and safe flight operations

It is a wide-ranging statutory instrument that dictates the legal requirements for flying safely in the UK within key areas such as Pilot and crew licensing, Airworthiness, Operational Directives and Rules of the Air

It establishes strict rules to ensure passenger and public safety such as article 241 which states

> *'It is an offence to recklessly or negligently cause or permit an aircraft to endanger any person or property'*

However, whilst we were preparing the NGC safeguarding plan, the CAA advised that what might be considered a safety risk by one person, might not by another and qualified that by reference to UK Regulation 2018/1139 which in summary states that

> *'Only the aerodrome operator holds expert opinion as to safety when it comes to the question of proposed obstacles around their airfield'.*

NGC, as operators of Tibenham Airfield consider the proximity of the pylons to be a significant aviation safety risk

As the ExA will be aware from the various submissions received from other aviation bodies, including Dr Mark Eddowes, that view is echoed many times

Even the Applicant in a recent submission concerning the risks involved with EFATO type incidents and the possibility of a forced landing before the overhead line (OHL) or gliding over to land beyond states that

> *'The Applicant accepts that there is a period in the middle where hitting the line is a possibility*'

In view of this if the OHL were to be constructed as proposed, NGC, as the Airfield Operator, would have no choice other than to close the two runways concerned with the adverse impact on the airfield as referred to in EN-1

It is in this context that we believe the NPPF paragraph 200 is relevant

> *'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'.*

And that forcing the closure of two runways on a well-established airfield represents "unreasonable restrictions" especially since the whole problem can be avoided and could have been avoided at the outset by collaboration.

Perhaps the one issue that is open to debate is that of the likely frequency of these potentially fatal accidents and this is covered in the CAA CAP1059 Risk Tolerability Matrix, see appendix C of REP3-128. The Applicant tries to water down the frequency by quoting numbers from various sources but, as we have previously advised them, whilst we use the term EFATO we are using it to encompass any and all forced landing emergencies resulting from whatever cause.

Further detail on this can be found in Dr Mark Eddowes' (Eddowes Aviation Safety Ltd) report which has been appended to NGC's Written Representation REP1-256. Also, within REP1-256 appendix H is a table of aerotow issues where aborting the tow is the only safe option. These incidents do not require reporting and are therefore not found in any statistical information

The conclusion from assessing the EFATO scenario within the matrix is

> *The risk is unacceptable and major mitigation measures are required to reduce the level of risk to as low as reasonably practicable*

We do not consider procedural changes, marker balls or low-height pylons to be acceptable forms of mitigation since the obstacle is still present and forming a real aviation safety risk

The only acceptable mitigation is to increase the distance between the airfield and the OHL and since we cannot move the airfield the Applicant as the "Agent of Change" must accept re-alignment to outside our 5km safeguarding zone or undergrounding whilst within it as the only viable option

SS 2.6 Aviation safety and risk

Within the ExQ2 question reference was made to

> *'Furthermore, the consequences arising from an accident from an interaction between an aircraft and the overhead lines and pylons would appear likely to be grave'*

NGC support this view and have provided witnessed examples in submission REP3-128

In the decision dated 31 October 2019 involving a planning appeal over Rufforth airfield and a planning application for farm buildings, the Inspectorate took the same view. Reference to this can be found in Dr Mark Eddowes report appended to REP1-256

SS 2.8 Low height pylons and mitigation measures

Marker balls

> The use of marker balls would have little or no effect on mitigating the safety risks posed by the proposed pylons. All club pilots flying from Tibenham are either briefed by the duty instructor or through the use of the Notice to Air Missions (NOTAM) system which is managed by the CAA

Changes to competition procedures

> In terms of competitions, the adverse impact of the proposed overhead line on the operations of the airfield falls into two groups, aerotow take-off and landing (competition finishes)

Where meteorological conditions dictate the use of runway 26 towards the proposed overhead line for aerotows would not be allowed due to safety risks and the 'competition day' would be abandoned. Whilst recognising the need for aviation safety, this loss of a good competition day would not be appreciated by the pilots which would be reflected in reduced number of competitors to the point that the competition would be no longer viable with corresponding financial losses to the club

As has been previously mentioned, the British Gliding Association (BGA) had indicated that the presence of the proposed line would preclude Tibenham from hosting National competitions in any case. A modern competition glider returning from the west to land at Tibenham would overfly the pylon route at about 100ft above ground level (ie half the height of the proposed pylons).

We understand that whilst the BGA are reviewing procedures for competition finishers the loss of 'competition days' due to meteorological conditions would still be an issue

The use of low-height pylons

The suggestion of low-height pylons was introduced in the 2024 consultation by the Applicant but no dimensions were given then and none have been received since.

The response at that time by NGC was that, whatever the height, they would still form an unacceptable obstacle in any EFATO type situation

In principle the reduction in height of an obstacle would in aviation terms reduce the level of risk but with the route alignment cutting through the forced landing splay the potential for a fatal accident in such circumstances would still exist

SS 2.9 Applicants response to action points

Bullet Point 1 – Respond in detail to the CAA AAT letter of March 2025

The request from the ExA was for the Applicant to respond in detail ("line by line") to the CAA AAT letter of March 2025. NGC can find virtually no correlation between that letter and the Applicant's response as shown in REP4-303

Example 1 - Paragraph 4 of the CAA AAT letter
The CAA AAT letter states

'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'

Yet only a few months after receipt in 2025 the Applicant published their Aviation Impact Assessment that ignored that advice and concluded that

'An aerotow combination would have sufficient room to manoeuvre away from the OHL after take-off'

The initial draft versions of the SoCG and AIA were received by NGC at about the same time. In an effort to resolve this issue and progress development of those documents, in July 2025 the Applicant agreed with NGC to provide a written explanation of their route development rationale and in particular why so much expert advice and guidance was being ignored in favour of the less experienced opinion of their aviation consultants.

In the event that information was withheld and continues to be withheld, both documents remain in draft form and "not agreed"

In recent communications with NGC, the Applicant has claimed that no information has been withheld therefore it comes as a surprise that there is no line-by-line response to this paragraph within REP4-303 in answer to the ExA's request

Example 2 – Paragraph 1 of the Applicants response

The Applicants response states

In reference to the Civil Aviation Authority Airfield Advisory Team's (CAA AAT's) March 2025 Position Statement and its consideration of Tibenham aerodrome specifically, this is addressed within ***8.8.2 Applicant's Comments on Local Impact Reports [REP2-030]*** *(see paragraphs 3.17.13 to 3.17.15)*

Paragraph 3.17.13 does not address the CAA AAT letter line-by-line as requested but reiterates elements of that letter without giving an answer or recognising that the concerns expressed represent 'adverse impacts' contrary to EN-1

Paragraph 3.17.14 references table A15.2.11 of **6.15.A2 Environmental Statement Appendix 15.2 Review of Aviation Impact [APP-267],** which is the very document to which paragraph 4 of the CAA AAT is referring to, with the conclusion that clearance margins are adequate enabling runway use to continue. The paragraph fails to provide any explanation as to why the advice is being ignored and as such NGC believe this is another example of the expert advice and guidance expressing serious safety concerns continuing to be ignored without any explanation as to why

Paragraph **3.17.15 references 8.3.7 Draft Statement of Common Ground – Tibenham Aerodrome [REP1-105]** which we understand has been superseded by REP4-249. In this paragraph the Applicant claims that this document demonstrates that they have sought to collaborate with the operator (NGC) and the CAA AAT. Given that the CAA AAT letter was dated 20.3.25 advising of their disbandment as at 31.3.25 and NGC did not receive the draft SoCG until after that date it is difficult to see how that is possible

Example 3 – Some contradictory views

Within the CAA AAT letter in the paragraph on page 3 commencing "To some extent...." there are three sentences to which the Applicant would seem to have responded

S1 – *'I was concerned by suggestions that glider tow aircraft had the performance to climb clear of the proposed powerline infrastructure'*

S2 – *'The reality is that the performance of both glider tow aircraft and gliders, are variable and based on many factors including meteorological conditions'*

S3 – *'Energy management, height, speed and range from Tibenham are of course variable and will be impacted by other factors as described above'*

S1 had to some extent already been referred to by the CAA AAT in their letter in paragraph 4

'any intimation that a specific type can manoeuvre to avoid such vertical obstructions should be disregarded'

However, the Applicant's response concludes in REP4-303 that

'considering a range of glider and powered aircraft types (including aerotows) as appropriate for the aerodrome, with related conclusions that clearance margins are adequate in terms of safety'

'The Applicant has also assessed and concluded there is sufficient distance from the Project to enable an aerotow to turn in front of it as well as clearance to climb over it'

In their response the Applicant fails to provide any evidence to support those views which is perhaps understandable given their limited aviation expertise however it does raise other issues

Planning guidelines when addressing issues with respect to aerodromes indicate that not only should current use be considered but also potential future use. The Applicants reference to *'appropriate for the aerodrome*' implies that they are not taking potential future use into account

NGC have previously advised of the results of 14 aerotows from runway 26 in September 2025 in which conditions were such that not all aerotows would have cleared the proposed overhead line.

The Applicant has requested details of the test flights *'to understand the test conditions and parameters'* but this would serve no meaningful purpose since it is quite probable that on another day the same 14 aerotows would have resulted in a different outcome which could range from a clearance by all down to more failing to reach the required height.

Whilst this phenomenon might seem difficult to appreciate it is, as the CAA AAT letter explains, a function of many factors, some physical and some meteorological. The Applicant acknowledges in REP4-303

> *'The assessment methodology uses International Standard Atmosphere conditions in still wind ….. recognising there may be some variation in clearances achieved due to specific conditions of the day'*

The Applicant does not expand on the degree of variation in clearances but as a tug pilot and glider instructor with the experience of many thousands of launches I have witnessed short term climb rates that varied from a positive of 1,500 feet per minute to a negative 300 feet per minute. For comparison, a Robin DR400 (the type of tug aircraft used at NGC) has a declared climb rate in the order of 800 feet per minute

This variation in climb rates allied to the risk of EFATO makes the use of runways 26 and 33 a significant safety risk in the event that the overhead line is built as proposed

In reference to S3, the Applicant states in REP4-303 that

> *'including variables regarding 'energy management height', a term that is not recognised by the Applicant or apparent within BGA guidance, speed and range from the aerodrome'*

Which, due to a possible typo, is a misunderstanding since the phrase should have read energy management, height, speed and range from the aerodrome. This represents the four elements that competition pilots use to maximise their chances of success

Bullet Point 2 – Risks in turns below 300ft and partial power loss

The NGC response to the previous ExA question concerning the minimum height for a turn can be found in REP4-366

In order to avoid overflying the proposed overhead line aircraft taking off from runway 26 would have to execute a turn of about 120^0 northbound or about 60^0 southbound.

Whilst as the Applicant states *'many aerodromes have noise abatement procedures which require similar turns after take-off',* NGC is not aware of any that involve those turns being

made at low level over the top of another active airfield with the resultant risk of a mid-air collision

In terms of partial power loss limiting the turn to 30^0 left or right of the extended runway centerline would not avoid the overhead line. Whilst we agree that the likelihood of any EFATO type emergency is unaffected by the presence of the Project, the ability to make a safe forced landing is seriously affected and could result in fatalities

Bullet Point 4 – Justification to suggestion of lower height pylons

The NGC response to the suggestion of lower height pylons has been addressed in our response to SS 2.8 which concludes with

> *In principle the reduction in height of an obstacle would in aviation terms reduce the level of risk but with the route alignment cutting through the forced landing splay the potential for a fatal accident in such circumstances would still exist*

We note the Applicant does not consider the use of lower height pylons within the context of applying the mitigation hierarchy since they do consider the full height pylons to be a safety risk

The NGC position is that both represent an unacceptable safety risk.

Bullet Point 5 – Source of statistics for engine failure

Introduction

We would agree with the Applicant in that the availability of reliable data is difficult to obtain

However within the NPPF paragraph 200 it states

> *'Existing businesses and facilities should not have unreasonable restrictions placed on them as a result of development permitted after they were established'*

Which could prompt the question

> Is it reasonable to place an obstacle in front of a pilot who would know that in the event of an emergency on any take-off the outcome could be fatal?

Example from Rufforth

This statement in the appeal decision of a planning application for buildings close to Rufforth Airfield summarises the situation

From the evidence before me, both the Council's (Dr Eddowes) and appellant's (Mr Hinchcliffe/Osprey) aviation experts accept that in normal take-off and landing situations, the proposed buildings would have very little effect upon aviation safety.

However, the point of dispute arises over the effect of unforeseen pre-cursor events (UPCE), for example, engine failure after take-off (EFATO), undershoot or bird strike.

Whilst these UPCE are not influenced by the presence of the proposal, the location of the poultry sheds would remove an area of land that could be used for forced landings.

This effectively would lead to a change in the obstacle environment in an area where UPCE may occur, and this could then lead to an increased risk of the forced landing colliding with the proposal, causing serious injury or fatality.

The primary concern for the Council is EFATO.

Which brings us back to the question of risk

Risk Tolerability Matrix

In an earlier submission, REP2-290, the Applicant drew the ExA's attention to CAP 1059 to which we responded in our submission REP3-128 referencing their paragraphs 7 and 8 (Aviation safety risks).

When looking at the likelihood of occurrence, rather than attempt to determine a value based on statistics, the CAA guidelines placed the likelihood into one of five categories

Frequent – Likely to occur many times (has occurred frequently)
Occasional – Likely to occur sometimes (has occurred infrequently)
Remote – Unlikely to occur but possible (has occurred rarely)
Improbable – Very unlikely to occur (not known to have occurred)
Extremely improbable – Almost inconceivable that the event will occur

We applied the EFATO scenario to the Risk Tolerability Matrix described in CAP 1059, which is summarised in appendix C of REP3-128, with the following results

Risk severity classification – Catastrophic
Risk likelihood classification – Remote to Occasional
Risk conclusion – Unacceptable

Which within the guidelines of CAP 1059 means that

The risk is unacceptable and major mitigation measures are required to reduce the level of risk to as low as reasonably practicable

However, the question posed by the ExA concerns the source of the statistics used by the Applicant

AAIB analysis

Prior to the DCO application, on behalf of NGC, I reviewed the Air Accidents Investigation Branch (AAIB) database which allowed for the analysis of some 11,000 accidents over the last 25 years. A search of those reports looking for the term 'engine failure' produced 174 hits.

Of these 174 hits:

> 75 occurred during take-off and 34 during approach and landing, the remainder being en-route flights
> Of the 75 take-off incidents, 56 of the reports indicated the height at which the problem occurred
> And 35 (62%) of these 56 were at 300ft or lower.

A similar search for accidents (excluding drones) involving cables produced 46 hits of which about 1/3 resulted in serious or fatal injuries.

Personal experience

On a personal level I am aware of 3 accidents (two of which I witnessed) involving cables that occurred prior to the AAIB's computerised database and resulted in 3 fatalities and 2 serious injuries

> In 1969, a Tiger Moth towing a glider from Tibenham crashed into an electricity pylon during a forced landing attempt following an aborted aerotow – the pilot was fatally injured
>
> In the mid 70's a PA 28 attempting to land at North Weald came in contact with cables and crashed – two occupants were fatally injured and a third suffered serious injuries
>
> In the 90's a glider from Tibenham whilst attempting to recover from a failed winch launch came in contact with electricity cables and the pilot was seriously injured

Eddowes Aviation Safety Ltd

Within the NGC Written Submission, REP1-256 we appended the report by Dr Mark Eddowes (Eddowes Aviation Safety Ltd) and have re-produced the section on EFATO type incidents

3.7 ENGINE FAILURE AFTER TAKE-OFF

3.7.1 Aircraft engine failure is a recognized hazard to safe flight. For commercial civil air transport operations, the risk associated with engine failure is generally mitigated by the use of multi-engine aircraft with the ability to maintain safe flight after a single engine failure, further recognizing that failure of more than one engine is a rare event. For single-engine aircraft, mitigation is through successful implementation of a forced landing, a scenario for which pilots undertaking such operations prepare through training. In most cases, forced landings following engine failure are achieved successfully, avoiding serious injury or fatality. Engine failure shortly after take-off is potentially of more specific concern than engine failure en-route. Where limited height has been gained during take-off there will be less time to respond and select a safe landing area and fewer landing options available. Also, engine failure is relatively common per unit flight time during take-off since it is when the engine is at high power and under most strain. According to the circumstances, the risks to aircraft occupants from developments in more critical areas along flight paths near runway ends can therefore be significant. Since risks are concentrated in these areas, development control at them can provide substantial safety benefits.

3.7.2 National Grid's aviation assessment considers forced landing risks at paras. 15.3.39 to 15.3.42. It begins by stating *that "it should first be recognised that the incidence of a forced landing is comparatively low*" but does not identify any comparator to support that suggestion. It goes on to identify engine failure rate statistics and then draw some conclusions, implying that any risk arising from the overhead line would be low, stating the following:

> *"The likelihood of an engine failure on a single-piston aircraft fitted with the most common engine types is between 1.21 per 10,000 hours i.e. 1.21 x 10^{-4} (with a Continental engine) and 1.27 per 10,000 hours i.e. 1.27 x 10^{-4} (with a Lycoming engine)1. The likelihood of a forced landing for any reason is very slightly higher, to take account of all other causes of emergency landing, although this increase is not materially significant. The risk of colliding with an overhead line after such a failure is smaller still, as the aircraft would have to be in a height band where it was too low to glide over the overhead line and too high to land before it, as well as being unable to manoeuvre sufficiently to avoid it."*

Whilst appearing to be based on a statistic, this superficial, qualitative account is fundamentally flawed and presents a totally mis-leading picture.

3.7.3 In the first instance, the failure rate per flight hour is not put into any kind of context in terms of the number of hours flown per annum. A study around twenty years ago [10] estimated that there to be around a million hours flown by these sorts of general aviation aircraft per annum in the UK. On that basis, those failure rate statistics imply over a hundred UK incidents per annum. Next, the *"smaller still"* wording employed to describe the collision

risk seems to imply that the precursor event has already been shown to be *"small"* without any objective basis for making such a judgement. Finally, there is no recognition that the height band conditions required to lower the collision risk with respect to the precursor engine failure event will not be satisfied for a substantial portion of the take-off operation.

3.7.4 Overall, the conclusion reached in respect of forced landings is that *"we regard these risks as acceptable within the standards of light aircraft operations."* No indication is given concerning what risk acceptability criteria have been employed and what standards are considered applicable. The UK CAA provide guidance on risk assessment and risk acceptability [11] which could assist in this respect. The superficial analysis presented in the National Grid aviation assessment does not comply with good practice as set out in that guidance. The process required to determine risk acceptability is first to identify an appropriate rate for the initiating event of engine failure or other cause leading to a forced landing during take-off towards the pylons, second to determine the likelihood that, due to the pylons, the forced landing would not be completed safely when otherwise it would, combine the likelihoods of the two events to determine the increased risk of fatality or serious injury and, finally, compare the estimated increased risk with an appropriate risk significance and acceptability criterion. The National Grid aviation assessment does not follow a rigorous process and does not adequately demonstrate that the pylons would not constitute an unacceptable risk to aerotow launch operations at Tibenham.

3.7.5 Brief reference has already been made in para. 2.4 to the precedent set at Rufforth Aerodrome from where the York Gliding Club operates. The risks to glider and aerotow operations were identified by the local planning authority as the sole reason for refusal [4] of a proposed chicken farm development along flight paths at Rufforth, based on a quantitative risk assessment [5], a decision that was upheld on appeal [6]. Referring to UK accident statistics derived from Air Accident Investigation Branch (AAIB) reports, the assessment identified an estimate [5] for the likelihood of forced landing shortly after of 4.4 per million movements. Whilst that number might at first appear small, it has to be remembered that tug aircraft pilots will typically undertake several aerotow launches a day on several days of the year. Accordingly, a tug aircraft pilot might undertake several hundred aerotow launches per annum and the annual forced landing rate for an individual pilot will therefore be non-trivial. The fraction of forced landings that would be adversely affected was then estimated and an overall estimate for the increased risk of fatality for tug aircraft pilots was made. That estimate was then compared with an accepted risk significance criterion, identified by the Health and Safety Executive [12], confirming that the increased risk was significant in the planning context and sufficient to justify refusal of the application.

3.7.6 By analogy with those arguments made previously in relation to the Rufforth development, it may be concluded that the proposed overhead line represents a potentially

significant threat to the safety of take-off operations at Tibenham. In the Rufforth case, the development area was relatively small but close to the runway end which were factors affecting the estimated risk and the feasibility of providing applicable risk estimates. For the Tibenham case, the obstacle is further from the runway end but it is very considerably larger. The pylons may not represent a major threat following engine failure earlier in the take-off since aircraft may not be able to reach the line of the pylons under those circumstances. However, simple mechanistic considerations of tug aircraft take-off profiles based on climb rate and glide rate after engine failure indicate that aircraft will be at potential risk for a substantial portion of the take-off path, perhaps around a third, before passing over the pylons. For the glider under tow, the degradation in safety will be greater due to the glider's shallower glide angle which allows for the possibility of travelling a more substantial distance after the initiating problem has occurred. Accordingly, a larger area of currently available land potentially suitable for glider safe forced landings would be lost to the pylon route. The review of light aircraft accidents that supported the forced landing rate estimate presented earlier identified 31 single engine light aircraft engine failures on take-off and 65 en-route failures. In five of those events, the available accident reports indicate that the forced landings were compromised by power lines. It has to be expected that in the majority of cases when power lines were not identified as a factor, they will not have been present at all. It is therefore clear that the suggestion in the National Grid aviation assessment that this risk can be reliably mitigated by pilot avoidance is not valid.

3.7.7 In conclusion, the proposal represents a potentially significant threat to the successful achievement of a safe forced landing in the event of engine failure during Runway 26 and Runway 33 light aircraft take-off operations and aerotow launches. The treatment of this risk in the National Grid aviation assessment is superficial and inadequate. It does not provide the necessary assurance that the proposal would not lead to an unacceptable fatality risk.

BDA viewpoint

The BGA have advised its member clubs that launch failures due to partial power loss in a single engine aircraft is soon to be added to the training syllabus in the UK.

Evidently this is the result of an Australian study (https://www.atsb.gov.au/publications/2010/avoidable-3-ar-2010-055) which concluded that:

> *"The data, however, shows that during and after take-off, a partial power loss is three times more likely in today's light single-engine aircraft than a complete engine failure. Furthermore, there have been nine fatal accidents from 2000 to 2010 as a result of a response to a partial power loss compared with no fatal accidents where the engine failed completely."*

The currently proposed pylon route is just 1.77 km from Runway 26. The pylons would seriously increase the risk for any pilot experiencing partial power failure whilst departing from this runway.

Conclusion

A recent media report (31 May 2026) states that a glider struck power cables whilst making a controlled landing leaving the pilot with significant life-changing injuries. The incident is being investigated by the AAIB but as yet there are no further details

As I suspect the ExA recognises, the main problem with trying to produce an analysis is the lack of meaningful raw data. Virtually all glider pilots fly cross country as part of the sport and at some time will have been faced with running out of thermals and the need to land. By far and away the majority of those landings will be safe and successful and the only record will be in the pilot's log book

At this stage we do not know if the incident mentioned above falls into that category but experience over 50 yeas of flying has shown that "emergencies" do happen on take-off and landing to both light aircraft and gliders.

Not all incidents are recorded by the AAIB even if a report was sent to them as evidenced by an EFATO incident early last year in which a light aircraft taking off from Tibenham suffered total engine failure (subsequently found to be a broken crankshaft). The pilot was able to make a safe forced landing, the aircraft was recovered, the engine was repaired and the aircraft is flying again. Although the AAIB was informed, we understand they chose not to include the incident within their database

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I am making these responses on behalf of Norfolk Gliding Club (NGC) in my role as Flight Safety Officer – responsible for the continued safe operation relating to all aviation related activities that take place at Tibenham Airfield.
Other responses will also likely be forthcoming for NGC from our member who has the remit for monitoring / responding to the DCO application.
However it is deemed appropriate that member with responsibility for flight safety also has a say – hence these responses.

Responding to SS 2.4 - Aviation safety resolution – Agent of change

During the meetings between NG and NGC, NG have have consistently failed to demonstrate an understanding of the complex aviation environment that operates out of Tibenham airfield. In doing so, NG have ignored the needs of coexistent Power and Gliding operations, Power Flight Training (Flight Training East Anglia - FTEA), Ballooning (Virgin Balloons & Buckletlist Balloons), MOD Helicopter Fuel replenishment, RC Models (Including Jets) and soon, Para-motors and Hang-Gliders, all of which operate aircraft of differing types and performance.
Aircraft / Launch types include: Single Engine Piston (SEP) including Twin Piston and Turbo Prop capability, Winch Launched Glider, Aerotow / Glider Combination, Self Launched Gliders, Motor-gliders, Balloons, Helicopters, Para-motors and Winch Launched Hang-gliders.

In it's assessment of risk, NG have continuously ignored the complexity that arises due to the close proximity of Tibenham and Priory Farm. Both airfields currently interoperate safely by close cooperation and implementation of non-conflicting circuits. With the installation of the Pylons, Priory Farm pilots may choose to not overfly the Pylons to the West of Priory Farm and instead fly circuits to the East potentially bringing them into conflict with circuit traffic operating into / out of Tibenham.
Although Tibenham recommended circuits displaced away from Priory Farm, due to the inherent inability of gliders to climb or maintain height, they can regularly find themselves without sufficient height to safely reach the recommended circuit and so have to fly circuits on the non-recommended side of Tibenham airfield, bringing them into direct conflict with Priory Farm traffic. It is extremely unsafe to over-fly an airfield when glider winch launching is active.

In addition NG has failed to take into consideration the local topography, by ignoring the existence of areas of population (Tibenham Village) and how to the North West of the airfield, emergency landing options for Runway 33 are severely curtailed by the existence of the River Taz. In this area fields are extremely small with significant down and upslopes, with the only landable options, beyond this area. However these options will be become unavailable as Pylons are due to be installed in this area. Thus pilots experiencing an emergency situation will need to overfly the village, in an effort to try and reach the larger fields beyond the river, only to be presented with a row of 400kV Pylons all whilst attempting to nurse an ailing aircraft to a safe survivable landing.

It should also be remembered that the Pylons will effectively mask the availability of any landable field that is on their far side, close to the Pylons, as the ailing aircraft will need to first pass over the Pylons before being able to initiate a descent to an available field, which will now be even further away.

When NG was asked to provide the methodology as to how they came to the conclusion that the existence of the Pylons will cause 'no harm' to the Tibenham and Priory Farm operations, NG produced an A4 half page table of obstacle limitation surface (OLS) calculations, which is a process that was deemed by UK Aviation Authorities as inappropriate for such a complex environment. Even though NG have been repeaeted asked to explain as why the views of the UK Aviation Authorities on this matter were ignored, no valid response has been forthcoming.

NG and their advisors continue to make light of the risks, the resulting implications and survivability of take-off power failures / power reduction / reduced climb out performance, whether caused by mechanical of metrological factors and have not taken into consideration the reduced climb out performance for the various aircraft types operating out of Tibenham Airfield.

Comment to SS 2.5 - Aviation and Critical National Priority (CNP)

It is our and GAAC's views that NG has wrongly sought to differentiate between licensed and unlicensed airfields (*3.6 of GAACs ISH 2 28 April 2026 Written Post-Hearing Submission*).

With NG taking this stance, it suggests that NG believe that pilots, crew and their passengers flying from unlicensed airfields do not deserve the protections from risk that NG would like to see only afforded to users of licensed airfields or to members of the general public.
Even is this stance is correct, this completely ignores the fact that Pilots flying from unlicensed airfields, when not part of an professional operation, are members of the public and an as such should be included in assessment as to how they will be affected by the increased risk that the Pylons will present.

NG's stance also ignores the fact that NGC regularly fly members of the public on Trial Flights where they are shown the joys of silent flight in a glider. These flights are a valuable source of revenue for NGC, contributing greatly to keeping the Club in existence as well as providing a means of attracting new members. Members of the local community are also regularly invited to take part in Trial Flight events at the regular NGC Community Days. The last Community Day was held on 2nd May 2026 with another arranged for 12th September 2026.

NG also appear to be ignoring the safety needs of the customers of the two Ballooning operations that operate from Tibenham Airfield.

Responding to SS2.8 - Low height pylons and mitigation measures

a – Marker Balls) The use of marker balls would have only a small effect on mitigating the risk from the Pylons / Power Lines. Pilots will already be aware of the location of the Pylons and hence the power lines, either through pilot briefings or documented pilot information such as airfield plates which describe runway directions and length, as well as other obstructions, villages, areas not to over fly etc. The marker balls will however allow the pilot of an ailing aircraft to more easily judge whether they would be able to overfly the power lines or attempt to fly under them. I wouold suggest that attempting to fly through the rows of 400kV power lines is not a valid option.
The pylons and cables would still constitute a significant barrier to reaching a safe emergency landing option.

B – Lower Pylons) The installation of lower pylons would have only a small effect on mitigating the risk from the Pylons / Power Lines. Lower pylons would improve the chances of an ailing aircraft being able to overfly the cables, assuming that the compromised aircraft had sufficient height and performance to do so. However due to their lower height, the option to land underneath them would be almost completely removed. Thus this mitigation measure would only improve the result of any forced landing where there was already sufficient height to overfly the lower pylon height at the point of failure.
The pylons and cables would still constitute a significant barrier to reaching a safe emergency landing option.