



Design Principles Engagement Report

Clash Gour Airspace Change Proposal
ACP-2021-046

Date: 4th February 2022

Author: [REDACTED]

Revision: Issue 2

Osprey Ref: 71609 007

[REDACTED]

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The Hub, Fowler Avenue, Farnborough Business Park, Farnborough, GU14 7JP
01420 520200 / enquiries@ospreycl.co.uk
Registered in England and Wales under No: 06034579



Document Details

Reference	Description
Document Title	Design Principles Engagement Report
	Clash Gour Airspace Change Proposal ACP-2021-046
Document Ref	71609 007
Issue	Issue 2
Date	4 th February 2022
Client Name	Force9 Energy
Classification	Commercial in Confidence

Issue	Amendment	Date
Issue 1	Draft A	7 th January 2022
Issue 1	Comments from Force9	10 th January 2022
Issue 2	Actions to complete following Stage 1 Gateway Assessment	4 th February 2022

Approval Level	Authority	Name
Author	Osprey CSL	██████████
Reviewer	Osprey CSL	██████████
Client Review	Force 9	██████████

Table of Contents

Glossary v

1	Overall Strategy	1
1.1	Introduction	1
1.2	Background	1
1.3	General Approach to Development of Principles	1
2	Design Principles Review	4
2.1	Introduction	4
2.4	Focus Groups	5
2.12	Additional Comments	10
3	Final List of Design Principles	14
3.1	Shortlist of Design Principles	14
4	CAP 1616 – Next Steps	15
4.1	Next Steps	15
A1	Stakeholders	1-1
A1.1	Aviation Stakeholder Matrix	1-1
A1.2	Non-Aviation Stakeholder Matrix	1-3
A2	Engagement Activity	2-1
A2.1	Initial Engagement	2-1
A2.2	Follow-Up Engagement	2-6
A3	Engagement Responses	3-1
A3.1	Babcock	3-1
A3.2	British Gliding Association	3-2
A3.3	General Aviation Alliance	3-4
A3.4	Inverness Airport	3-6
A3.5	Highland Council	3-8
A3.6	Ministry of Defence	3-9

Table of Tables

Table 1 - Prioritised Design Principles	14
Table 2 – Clash Gour ACP Timeline	15

Table 3 – Local Aerodrome and Aviation Organisations.....	1-1
Table 4 – Air Navigation Service Providers	1-1
Table 5 – National Air Traffic Management Committee	1-2
Table 6 – Members of Parliament.....	1-3
Table 7 – Conservation and Environmental Organisations	1-3

Glossary

Term	Meaning
ACP	Airspace Change Proposal
agl	above ground level
ANSP	Air Navigation Service Provider
ATC	Air Traffic Control
ATDI	Advanced Terrain Data Imaging
ATCT	Airport Traffic Control Tower
ATS	Air Traffic Service
BGA	British Gliding Association
CAA	UK Civil Aviation Authority
CAP	Civil Aviation Publication
CGH	Clash Gour Holdings
DP	Design Principles
EDFER	EDF Energy Renewables
Force9	Force 9 Energy
GA	General Aviation
GAA	General Aviation Alliance
LOS	Line of Sight
m	metre
MOD	Ministry of Defence
NATMAC	National Air Traffic Management Advisory Committee
NM	Nautical Mile

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PSR	Primary Surveillance Radar
RAF	Royal Air Force
RMZ	Radio Mandatory Zone
SSR	Secondary Surveillance Radar
TMZ	Transponder Mandatory Zone
USAFE	United States Air Force Europe
WTG	Wind Turbine Generator

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1 Overall Strategy

1.1 Introduction

The purpose of this document is to explain how Clash Gour Holdings Ltd (CGH) has conducted engagement with stakeholders to develop a proposed suite of Design Principles (DPs) to support the airspace change proposal (ACP-2021-46). The Design Principle engagement was conducted in line with Stage 1B of the Civil Aviation Authority (CAA) guidance on the regulatory process for changing the airspace design as provided in Civil Aviation Publication (CAP) 1616¹. The CGH Airspace Change Proposal (ACP) has been initiated in order to manage the development of airspace-related mitigation options for interference caused by Wind Turbine Generators (WTGs) to Primary Surveillance Radars (PSR) and the adverse impact this would have on the ability to provide Air Traffic Services (ATS).²

1.2 Background

Force9 Energy (Force9), jointly with EDF Energy Renewables Limited (EDFER) is planning to develop the Clash Gour Wind Farm in the name of its wholly owned subsidiary CGH. Clash Gour will be a substantial onshore wind farm which will be located in the Moray Council Area, approximately 13 Nautical Miles (NM) southwest of Royal Air Force (RAF) Lossiemouth and 15 NM southeast of Inverness Airport. Clash Gour will consist of 48 WTG with a maximum blade tip height of 180 metres (m) above ground level (agl). The location of the wind farm is provided within Appendix 4.1A2 of this document.

As part of the development consent process, CGH, through Force9, engaged with relevant aviation stakeholders to determine the impact of Clash Gour's operational WTGs on aviation radar systems and operations. In particular and relevant to the ACP, both the Ministry of Defence (MOD) and Inverness Airport have confirmed that, without mitigation, the development will have an adverse impact on their ability to provide ATS due to interference (radar clutter) caused by the detection of the operational WTGs by the PSR at RAF Lossiemouth and Inverness Airport. The ACP, entitled 'Clash Gour Wind Farm', has been initiated in order to manage the development of both airspace and radar related mitigation options.

1.3 General Approach to Development of Principles

CGH must follow guidance provided by the CAA and successfully complete the stages of CAP 1616 – Airspace Design. In Stage 1 (Define), the CAA require CGH to satisfactorily assess the requirement for airspace change by producing a Statement of Need and identify and communicate a set of DPs that encompass the safety,

¹ CAP 1616 Airspace Change: Guidance on the regulatory process for changing the notified airspace design and planned and permanent redistribution of air traffic, and on providing airspace information.

² See the Statement of Need, published on the CAA Portal.

environmental and operational criteria and policy objectives that CGH aims for in developing its airspace change.

It is important for Design Principles to be drawn up through discussion between the Change Sponsor and potentially affected stakeholder organisations at the early stages of the airspace change process. The aim of this engagement is to ensure that those stakeholder groups that may be affected have a good level of understanding of the proposed change, and to ascertain what design considerations are important to them. Aviation stakeholder identification and selection was completed via a desk-based study referencing the following documents and charts:

- 1:5000,000 NATS/CAA Scotland Edition 34 Aeronautical Chart
- UK Pooleys Flight Guide.
- UK Military Low Flying Hand Book.
- The UK Integrated Aeronautical Information Package.
- The Ministry of Defence Aeronautical Information Publication.
- Knowledge of the area and aviation activities conducted in the region.

Utilising the above documents a list of local aviation stakeholders which included adjacent general aviation and gliding clubs, airports, airfields, glider sites, military flying establishments, airport operators and Air Navigation Service Providers (ANSP) and potential local airspace users including helicopter operators (air ambulance, police and the main regional helicopter company who complete aerial survey and chartering services) was established. National bodies such as the Light Aircraft Association (LAA), British Airline Pilots' Association (BALPA), Airport Operators Association (AOA) and others are represented through the auspices of the National Air Traffic Management Advisory Committee (NATMAC) sponsored by the CAA, additionally a number of military organisations are also members of the NATMAC. The most recent NATMAC list was provided by the CAA ahead of the engagement process commencing. Our general approach to the development of design principles for this ACP was to ensure a high degree of transparency and two-way engagement with all relevant stakeholders, so that the options for new airspace are designed in accordance with the priorities of those stakeholders that are most likely to be affected.

Due to the localised nature of the airspace change and for the purpose of this stage of the ACP the non-aviation stakeholder representative bodies considered for engagement were the Moray Council, Highland Council and Cairngorms National Park who have been the point of contact for the projects while they have been progressing through the consenting regime. The Councils consist of elected representatives who provide delegated authority to their administrations to deal with enquiries such as this. The Highland Council and Moray Council in particular have strong links with Inverness Airport and RAF Lossiemouth respectively as major employers in their respective areas. Additionally given the application for the Clash Gour Wind Farm is a Section 36 scale Electricity Act application and the determining authority is the Scottish Minister – the Scottish Government Energy Consents Unit were also consulted.

A list of stakeholders engaged with is included at Appendix 4.1A1 to this document.

This document describes how stakeholders' feedback has influenced the DPs for the Clash Gour Wind Farm development. Engagement on specific design concepts/options will take place in Stage 2, and formal consultation in Stage 3. The design concepts will be evaluated against the final DPs as presented in Section 3 of this document.

2 Design Principles Review

2.1 Introduction

CGH produced a draft set of DPs which were distributed to stakeholders for feedback and comment. The draft DPs were in a letter which also contained details of the proposed wind farm development. This was e-mailed to stakeholders on 12th November 2021, with a requested return date of 10th December 2021, in order to engage with them and enable CGH to understand the design considerations that are important to them. A copy of the letter sent is contained in Appendix 4.1A2 to this document.

The letter made it clear that the proposed draft DPs were for discussion and that CGH would welcome feedback to inform the final DPs. The letter specifically asked stakeholders the following questions:

1. Is the wording right; how should they (the DPs) be prioritised relative to each other?
2. What is important to you?
3. Should there be more, or fewer?

2.2 List of Draft Design Principles

The following list of draft Design Principles were shared with stakeholders for feedback:

DP1 Safety

Maintain or enhance current levels of safety.

DP2 Operational (Resilience)

Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

DP3 Operational

Airspace change will maintain or enhance operational resilience of the Air Traffic Control (ATC) network.

DP4 Operational

Airspace change will have minimal impact on operations/capacity of airport operators and Air Navigation Service Providers (ANSPs).

DP5 Environmental

Minimise environmental impacts to stakeholders on the ground.

DP6 Economic

Minimise economic impact on aircraft operators and to ensure costs and resources are proportionate.

DP7 Technical

Base the airspace change on the latest technology available.

- This technology could relate to navigation, radar enhancements or radar data processing etc.
- The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer.
- Seek to create simple, easily definable solution.

2.3 Responses Received

From the emails sent out to organisations and individuals, a total of six responses were received from the following organisations:

- Aviation Industry
 - Babcock International Group (Babcock).
 - General Aviation Alliance (GAA).
 - British Gliding Association (BGA).
 - Inverness Airport.
 - Ministry of Defence (MOD).
- Councils and Public Officials
 - The Highland Council.

2.4 Focus Groups

Following the guidance of CAP 1616, CGH elected to undertake a focus group meeting to discuss the development of DPs with relevant stakeholders. The purpose of the focus group was to provide attendees with information regarding the need for an airspace change, the CAP 1616 process to be followed and the need to gather feedback on the issues that stakeholders considered to be important when jointly developing the DPs.

The focus group was held in Elgin Town Hall on 30th November 2021 and attended by representatives of the following organisations:

- General Aviation Alliance (GAA).
- British Gliding Association (BGA).

In addition to discussing DPs, the focus group were asked to assess the appropriateness of the CAA's decision to allocate this ACP a Level 1 status; there were limited comments regarding the level of the ACP. Minutes of the focus groups can be found on the CAA portal alongside this document.

2.5 Design Principle 1 Safety

Maintain or enhance current levels of safety.

2.5.1 Summary of Feedback

The GAA suggested that the text of the Design Principle be replaced with 'Ensure an acceptable level of safety for aircraft within and displaced by the proposed airspace'. The safety of any aircraft displaced as a result of implementing an airspace solution should be considered as just as important as the safety of aircraft operating within

any airspace. Any solution should be simple and effective and reiterated that a technical radar solution would be an ideal scenario.

In relation to safety, the GAA asked which ANSP would be responsible for managing the airspace and if there were any funding issues related to this.

The BGA commented that in general, safety and freedoms are mutually exclusive on a sliding scale. If something is done to improve safety, it is often at the expense of freedoms. Sometimes, a reduction in freedom is necessary to maintain or create an adequate level of safety. But where an adequate level of safety is extant, further increasing safety at the expense of freedoms is a bad policy.

The BGA disagreed with the proposed text of the DP. They considered that, given the low density of traffic in the area, the current level of safety in this piece of airspace is already significantly greater than “adequate” and that a slight reduction could be tolerated if to maintain the current level resulted in significant operational restrictions. If it was felt that safety would no longer be adequate without adding the restrictions, this would need to be demonstrated factually.

The BGA also considered that the ACP should also consider the safety of aircraft displaced as a result of implementing an airspace solution. By displacing gliders from areas of good lift, such as the proposed site, increases the risk. The BGA therefore proposed that the wording of the DP be amended to ‘Ensure an adequate level of safety, taking into account the safety of aircraft displaced into the surrounding area by any proposed airspace restrictions’.

2.5.2 How has the feedback influenced the Design Principle?

CGH acknowledge the comments relating to safety and agree that the safety of aircraft both within and around any airspace solution is equally important. The draft DP will be amended in line with the response received from the GAA.

The issue of which ANSP would be responsible for managing the airspace has not been explored in detail and would be looked at later in the ACP process.

2.5.3 Proposed text of Design Principle

Ensure an acceptable level of safety for aircraft within and displaced by any proposed airspace solution.

2.6 Design Principle 2 Operational (Resilience)

Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

2.6.1 Summary of Feedback

The GAA stated that even the use of a Transponder Mandatory Zone (TMZ) or Radio Mandatory Zone (RMZ) would be a block to those airspace users who were not able transit these areas and that any mitigations should be acceptable to all. The GAA wished to see the phrase ‘all possible negative impacts upon any airspace user must be mitigated to the satisfaction of that airspace user’ added to the DP.

The GAA also questioned whether there was a need for any airspace mitigation, and whether any traffic from the units that had suggested the need for mitigation actually used the piece of airspace in question. They suggested that those units provide

statements explaining the operational effect that the wind farm clutter would cause, and that if there was no operational effect, there was no need for an airspace solution.

Inverness Airport stated that the DP required further explanation as to what is defined by 'other airspace users'. They suggested that the text within the DP indicated that GA were the only airspace users that this DP referred to.

The MOD also commented on the text within the DP and suggested the use 'e.g.' (exempli gratia – meaning 'for example') instead of the phrase i.e. (id est – meaning 'that is'), would highlight GA as just one of many airspace user groups, thereby including all other airspace users, including military.

2.6.2 How has the feedback influenced the Design Principle?

CGH consider that mitigating all possible negative impacts upon any airspace user to the satisfaction of that airspace user would not be possible and that any solution decided on would include compromises that some users might not find acceptable.

Both units (RAF Lossiemouth and Inverness Airport) in question have provided a response to the development Section 36 application in which they stated that the development would create an unacceptable impact to respective PSR systems and would require mitigation.

The reference to GA in the original DP text has been removed and the text has been amended to include all airspace users without specific reference or definition.

2.6.3 Proposed text of Design Principle

Minimise negative impact on all airspace users.

2.7 Design Principle 3 Operational

Airspace change will maintain or enhance operational resilience of the Air Traffic Control (ATC) network.

2.7.1 Summary of Feedback

The BGA commented that the operational resilience of ATC must be currently adequate, and that there is no requirement to make it more than adequate if the consequence is increased restriction and loss of safety for non-participating aircraft. They also noted that the sentence starts with 'Airspace change will ...' which gives the impression that an airspace change is a fait accompli even at this first stage of the ACP.

The BGA proposed that the wording of the DP be amended to 'Ensure adequate operational resilience of the ATC network'.

It was the opinion of Inverness Airport that the wording of the DP should be strengthened to read, 'Airspace change shall maintain operational resilience of the Air Traffic Control (ATC) network'. The aspiration to 'enhance' the operational resilience could remain as such.

2.7.2 How has the feedback influenced the Design Principle?

It is the opinion of CGH, following the feedback received, that there are no issues with the current operational resilience of the ATC network and that there will be no requirement to increase this resilience as a result of this ACP. The wording of the DP has been amended to reflect this and also to remove any inference that an airspace change is a fait accompli.

2.7.3 Proposed text of Design Principle

Maintain operational resilience of the Air Traffic Control (ATC) network.

2.8 Design Principle 4 Operational

Airspace change will have minimal impact on operations/capacity of airport operators and ANSPs.

2.8.1 Summary of Feedback

The BGA again noted that this Design Principle starts with ‘Airspace change will ...’ which gives the impression that an airspace change is a fait accompli even at this first stage of the ACP. In addition, they added that it is not just airport operators and ANSPs who operate in this airspace and whose operations could be affected. The BGA stated that the area around the site of the proposed development is used by local gliding clubs for cross-country flying training and the creation of an “obstacle” on that route has a detrimental effect on their operations.

The BGA suggested the wording of the DP be amended to ‘Strive for minimal impact on the operations/capacity of airport operators, ANSPs and other aviation organisations’.

Inverness Airport suggested the wording of the DP be amended to ‘Airspace change shall have no impact on operations/capacity of airport operators and ANSPs’. If that is not adopted, then a quantifiable statement should be included rather than the subjective inclusion of ‘minimal’.

2.8.2 How has the feedback influenced the Design Principle?

CGH considers that the impact on other airspace users have been considered in Design Principle 2. CGH accepts that there should be no impact on the operations or capacity of airport operators or ANSPs as a result of this ACP and hence the wording of the DP has been amended to reflect this. Any inference that an airspace change is a fait accompli has also been removed.

2.8.3 Proposed text of Design Principle

Airspace change shall have no impact on operations/capacity of airport operators and ANSPs.

2.9 Design Principle 5 Environmental

Minimise environmental impacts to stakeholders on the ground.

2.9.1 Summary of Feedback

The GAA commented that any aircraft forced to route around the airspace would produce a noise impact in the area away from any airspace solution.

2.9.2 How has the feedback influenced the Design Principle?

CGH acknowledge that a change in traffic patterns around any new airspace may create a noise impact on new areas. This will be assessed in detail at subsequent stages of the CAP 1616 process. This DP remains as originally proposed.

2.9.3 Proposed text of Design Principle

Minimise environmental impacts to stakeholders on the ground.

2.10 Design Principle 6 Economic

Minimise economic impact on aircraft operators and to ensure costs and resources are proportionate.

2.10.1 Summary of Feedback

The GAA asserted that there would be a huge economic impact on some GA operators. Whilst there are solutions for some aircraft, there would be issues with both the size and power of additional equipment required in some aircraft, and significant financial issues for operators due to the costs of both the equipment and any additional licensing requirements. The GAA wished to see the sentence ‘all possible additional costs incurred by any airspace user, or user group, must be fully financed by the ACP sponsor to the satisfaction of the airspace user/group’ added to the DP.

Although the BGA agreed with this DP to an extent, they disagreed with “proportionate” as the only criteria. It was their opinion that it would be unjust for aircraft operators to have to spend money on additional equipment to gain access to changed airspace, and that it would only be fair that those organisations wanting and or creating the need for the airspace bear that cost and it does not fall on those who do not want or need it.

2.10.2 How has the feedback influenced the Design Principle?

CGH acknowledges that there may be some economic impact on aircraft operators as a result of implementing an airspace solution to mitigate the issues that are likely to be experienced by the PSR at RAF Lossiemouth and Inverness Airport through the radar detection of operational WTGs. However, the issue of whether CGH would be liable for all associated costs for any airspace user is considered by CGH to be out of scope of the ACP process and specifically the DP. CGH accepts that the use of the word ‘proportionate’ may not be suitable if the requirement is imposed on third-party airspace users who would argue that a zero cost impact would be proportionate for them. CGH will endeavour to minimise any economic impact through the development of its design options at Stage 2 and hence the wording of this DP has been amended.

2.10.3 Proposed text of Design Principle

Endeavour to minimise economic impact on aircraft operators.

2.11 Design Principle 7 Technical

Base the airspace change on the latest technology available.

- This technology could relate to navigation, radar enhancements or radar data processing etc.
- The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer.
- Seek to create simple, easily definable solution.

2.11.1 Summary of Feedback

Although acknowledging that this meeting was focussed on the development of the DPs, the GAA expressed concern that the use of a TMZ was becoming the ‘go to’ solution for this issue. In their opinion, a proper technical radar solution would be the only acceptable solution as this will not be the only wind farm being developed especially given the Scottish Government’s national renewables target for onshore capacity.

2.11.2 How has the feedback influenced the Design Principle?

CGH acknowledges that a technical solution without the need for an airspace change would be ideal. However, this is unlikely to be available within the timescales of this development and an alternate mitigation method will be required in order for the development to proceed. CGH considers that this ACP would be an interim solution until a technical radar mitigation solution for the RAF Lossiemouth and Inverness Airport PSR systems is available, tested and confirmed to be operating successfully by the ANSP. This DP remains as originally proposed.

2.11.3 Proposed text of Design Principle

Base the airspace change on the latest technology available.

- This technology could relate to navigation, radar enhancements or radar data processing etc.
- The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer.
- Seek to create simple, easily definable solution.

2.12 Additional Comments

2.12.1 Babcock International Group

As the proposal will effectively create a ‘super bubble’ with the existing wind farm sandwiched between the ‘new’ ones, Babcock asked what the difference will be between the existing lighting pattern and the new proposal. This would allow them to work out how the windfarms would look together as one large bubble. Babcock commented that the light patterns and visual perception from low altitudes from all headings were important to them and they would be satisfied if the perimeter was well lit, with some additional lighting in the middle of the ‘field’, as long as the tallest clusters were well lit.

CGH Response – For the Clash Gour Wind Farm there are 20 proposed WTGs which would exceed 150 m in height, all located in the forestry in the eastern cluster of the development. CGH consulted on a reduced lighting scheme for this cluster in March 2020 through Aviatica and the proposed reduced lighting scheme was discussed with Babcock. After a couple of rounds of consultation CGH agreed a reduced lighting scheme with the CAA on the following basis:

- medium intensity steady red (2000 candela) lights on the nacelles of WTGs 18, 19 and 32;
- a second 2000 candela light on the nacelles of WTGs 18, 19 and 32, to act as alternates in the event of failure of the main light;
- the lights on WTGs 18, 19 and 32 will be capable of being dimmed to 10% of peak intensity when the visibility as measured at the wind farm exceeds 5km;
- infra-red lights to MOD specification installed on the nacelles of perimeter WTGs in each of the three arrays, which consists of:
 - Northern Array: WTGs 1 to 5; 7; 8; and 10 to 12;
 - Eastern Array: WTGs 13 to 19; 24 to 26; and 29 to 32;
 - Southern Array: WTGs 33 to 36; 39; 40; and 43 to 48; and
- as a result of this arrangement, intermediate level 32 candela lights will not be fitted on the WTG towers.

2.12.2 British Gliding Association

The BGA supports in principle the building of onshore wind farms. However GA and gliding in particular is severely adversely affected by the creation of new controlled airspace including TMZs and RMZs. Most gliders flying in the area of the proposed wind farm do not have Secondary Surveillance Radar (SSR) transponders and so cannot comply with a TMZ's basic requirement. Generally they do have aeronautical radios but most pilots do not have the necessary radio operator's licence required to communicate with ATC since none is required for glider flying outside controlled airspace, making alternative means of access to TMZs by radio approval, or entry to an RMZ, unavailable to them.

The BGA also explained that there is a fundamental issue with using a radio in a glider when the pilot has to concentrate 100% on the soaring all the time. Moment to moment decisions are taken as to the heading, speed and general strategy in order to make the best of the lift and stay airborne over significant areas of unlandable terrain.

The BGA stated that it should be determined evidentially what the extent of the problem for RAF Lossiemouth and Inverness Airport would be and its impact on safety. It should not just be the opinion of someone for whom the creation of controlled airspace carries no down-side. It needs to be determined whether the 'do nothing' option would reduce safety to below an acceptable level in comparison to the reduction of safety and loss of freedoms to other airspace users who are excluded from the airspace for the reasons given above. The BGA have no idea how significant the radar clutter from the wind farm would be or whether or not the problem is being exaggerated because for those units, there is no down-side to the implementation of an airspace solution such as a TMZ. There needs to be scientific and factual evidence demonstrating the extent of the problem.

The BGA noted that there was a suggestion that an airspace solution would be a temporary one pending a technical solution. In their experience with similar ACPs, they have found that once the airspace is in place, there is zero motivation for those responsible to actually create or implement this 'technical solution' and so the airspace restriction becomes permanent by default.

The BGA also felt that it seemed unusual that the ACP was not being sponsored by those organisations that wanted a solution to the problem of radar interference. They expressed concern that orphaned airspace could be created, that is not 'owned' by any aviation organisation, leaving it stuck in limbo, should it transpire that airspace such as a TMZ is actually required by the facts.

CGH Response – CGH acknowledge the comments relating restrictions that certain airspace solutions would impose on the GA community and specifically glider operations. These issues will be considered further during Stage 2 of the CAP 1616 process as CGH begins to develop its design options.

Radar Line of Sight (LOS) modelling had suggested that the Clash Gour WTGs would theoretically be detectable by both RAF Lossiemouth and Inverness Airport's PSRs, producing radar clutter. The radar LOS modelling used was the Advanced Terrain Digital Imaging (ATDI) tool which has provided reliable results of theoretical detectability of WTGs to PSR systems. CGH acknowledge that there was no guarantee that a radar technical mitigation solution applicable to both effected PSRs would be available in the timescales required³ however, a successful conclusion of the ACP would allow the wind farm to be built and operated. The planning conditions which will control the implementation of the wind farm development insist on the establishment, testing and long term provision of a technical radar solution for the wind farm. Those conditions are enforceable and will be backed up by contractual arrangements between CGH and both the MOD and Inverness Airport to ensure a long term technical mitigation solution is provided for as part of the development.

2.12.3 Inverness Airport

Although all of the DPs are important to Inverness Airport, they considered that they would only be directly affected by DPs 1, 3, 4 and potentially 2. At this stage they felt that the number of DPs were sufficient for this stage of the process.

2.12.4 Ministry of Defence

The MOD agreed that the DPs were appropriate and weighted with appropriate priority.

2.12.5 General Aviation Alliance

The GAA commented that the use of a RMZ or TMZ are currently the only tools available in the UK for an issue such as this, and that even these will have a serious impact on GA. The GAA asked whether there were any other practical solutions, such

³ There are technical radar mitigation solution systems in operation at UK civil airports which are utilised to remove clutter adequately. The MOD, Department for Business, Energy and Industrial Strategy (BEIS), The Crown Estate and the Offshore Wind Industry Council (OWIC) formed a Joint Task Force (JTF) whose aim to enable co-existence of air defence and offshore wind. When developing a strategic approach to mitigation solutions for offshore wind, it will also consider, and enable where possible, onshore wind developments and/or ATC radar mitigation.

as the Flexible Use of Airspace and possibly turning the airspace on and off when RAF Lossiemouth and Inverness Airport were not operating.

Our Response – CGH acknowledge the impact that airspace solutions may have on GA and would consider any other possible solutions that would be acceptable during Stage 2 of the CAP 1616 process as CGH begins to develop its design options.

2.12.6 The Highland Council

The Highland Council acknowledged the receipt of the ACP notification and focus group meeting and have no further comment on the provided information at this stage. The Highland Council would like to be updated as the proposal progresses.

2.13 Prioritisation Returns and Assumptions

The only response that specifically commented on prioritisation of the DPs was received from Inverness Airport. They stated that they agreed that safety must be the first priority. Until the text of DP 2 was clarified, they felt it would be difficult for them to categorically approve or challenge the relative prioritisation of the DPs. However, they would like to see DP 4 moved above DP 3.

The MOD agreed that the DPs were appropriate and weighted with appropriate priority. CGH assumes that this statement implies that the order of the DPs as presented is the priority order.

In light of the comments received above, CGH has prioritised the DPs in the order they were originally presented, apart from making the original DP 4 a higher priority than the original DP 3. These DPs have been re-numbered as appropriate in Section 4 below.

3 Final List of Design Principles

3.1 Shortlist of Design Principles

In light of the feedback received from stakeholders during the review described above in Section 2, the prioritised shortlist of DPs is shown in Table 1 below.

Design Principle	Design Principle
Design Principle 1 Safety	Ensure an acceptable level of safety for aircraft within and displaced by any proposed airspace solution.
Design Principle 2 Operational (Resilience)	Minimise negative impact on all airspace users.
Design Principle 3 Operational	Airspace change shall have no impact on operations/capacity of airport operators and ANSPs.
Design Principle 4 Operational	Maintain operational resilience of the Air Traffic Control (ATC) network.
Design Principle 5 Environmental	Minimise environmental impacts to stakeholders on the ground.
Design Principle 6 Economic	Endeavour to minimise economic impact on aircraft operators.
Design Principle 7 Technical	<p>Base the airspace change on the latest technology available.</p> <ul style="list-style-type: none"> • This technology could relate to navigation, radar enhancements or radar data processing etc. • The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer • Seek to create simple, easily definable solution

Table 1 - Prioritised Design Principles

4 CAP 1616 – Next Steps

4.1 Next Steps

This document will be submitted to the CAA as evidence to support Step 1B of the CAP 1616 airspace change process ahead of the Stage 1 Define Gateway.

Following successful completion of the Stage 1 DEFINE gateway and subsequent publication, further stakeholder engagement meetings will be organised to discuss the design options once they are developed. The DPs will be used as the framework against which design options are developed and assessed to address the Statement of Need.

Currently, CGH estimated timeline for subsequent stages of this process is shown in Table 2 below:

CAP 1616 Stage (a)	Estimated Completion Date (b)
Stage 1 Define	28 th January 2022
Stage 2 Develop and Assess	25 th March 2022
Stage 3 Consult	27 th May 2022
Stage 4 Update and Submit ACP	22 nd July 2022
Stage 5 Decide	2 nd December 2022
Stage 6 Implement	April 2025

Table 2 – Clash Gour ACP Timeline

A1 Stakeholders

A1.1 Aviation Stakeholder Matrix

The following tables represents the key aviation stakeholders identified by CGH as potentially being affected by the proposal. CGH engaged with all of these stakeholders during the development of the DPs.

Individual aviation operations in the Highlands of Scotland are limited therefore, stakeholder identification focussed on those local organisations that have the potential to be effected by the development of the windfarm and as listed in the Design Principles Engagement Report. The following list provides the stakeholder organisation distance from the development boundary:

- Aboyne Airfield located 38 NM to the southeast of the development boundary.
- Insch Airfield located 31 NM to the east.
- RAF Lossiemouth (13 NM) to the northeast, Inverness Airport (14 NM) to the northwest.
- Feshiebridge Airfield 24 NM to the southwest.
- Local helicopter operators based at Aberdeen Airport (56 NM), Police Scotland Helicopter Support based in Glasgow (77 NM) and the Scottish Charity Air Ambulance at Perth Airport (44 NM) were also engaged.

Strathaven Airfield (108 NM) and Gama Aviation based at Aberdeen were also contacted.

National organisations were contacted via the CAA-provided NATMAC list.

Figure 1 below provides the individual range of influence for the local authorities/Cairngorm National Park Authority. The Scottish Government Energy Consents Unit (ECU) were also contacted with details of the ACP. In Scotland, certain applications in relation to energy infrastructure are made to the Scottish Ministers for determination, these include applications for consent for the construction, extension and operation of electricity generating stations with capacity in excess of 50 megawatts.

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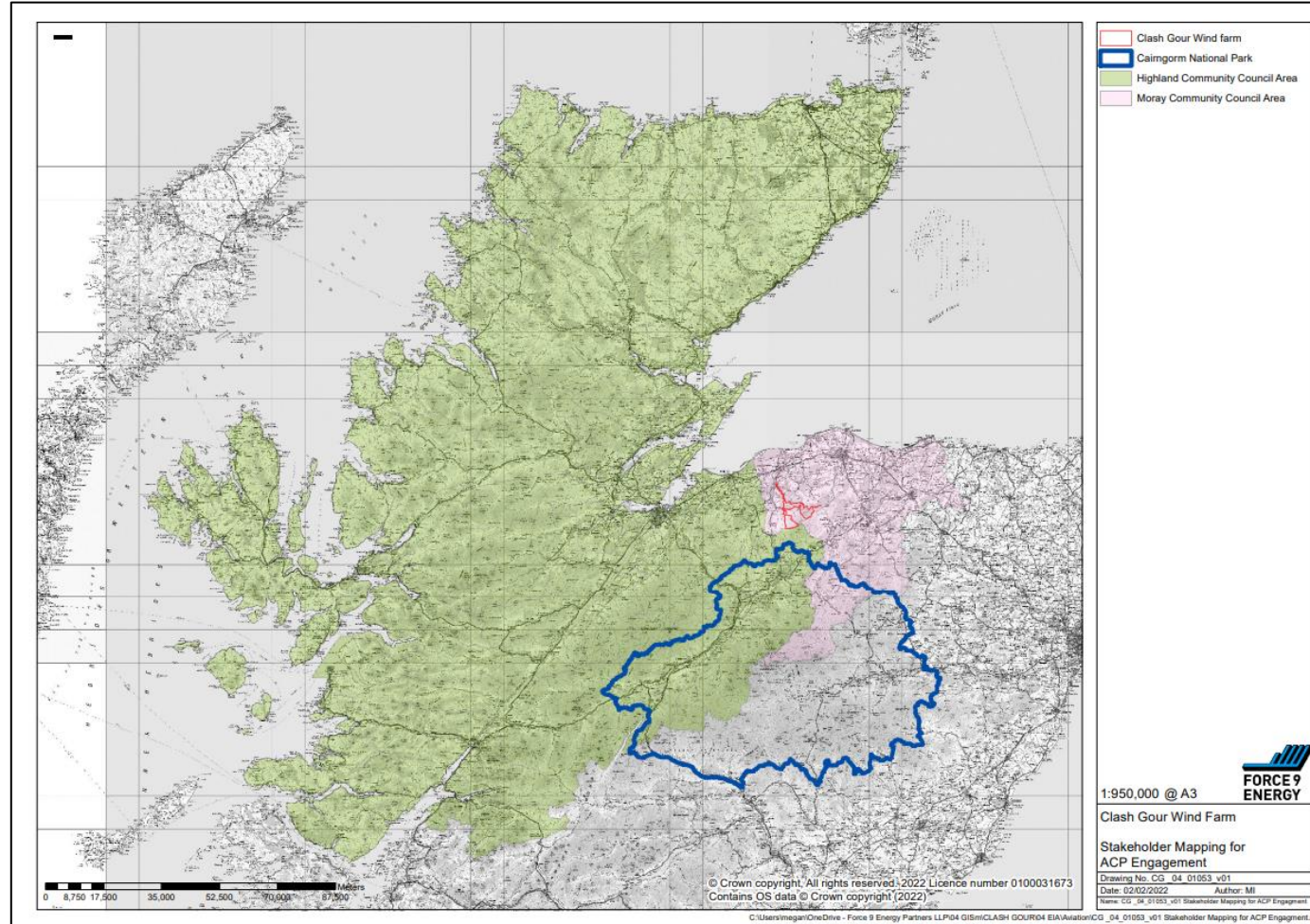


Figure 1 Non-aviation Stakeholder Mapping for ACP Engagement

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A1.1.1 Local Aerodrome and Aviation Organisations

We are engaging with the following local airports, airfields and aviation organisations:

Local Aerodromes and Aviation Organisations	
Inverness Airport	RAF Lossiemouth
Cairngorm Gliding Club Feshiebridge	Gama Aviation
Highland Aviation Inverness	PDG Helicopters
Highland Gliding Club Easterton Airfield	Moray Flying Club RAF Lossiemouth
Police Scotland	Scottish Charity Air Ambulance
Grampian Microlight and Flying Club (Insch Airfield)	Deeside Gliding Club (Aboyne Airfield)
Strathaven Airfield	Babcock International Group

Table 3 – Local Aerodrome and Aviation Organisations

A1.1.2 Air Navigation Service Providers

We are engaging with the following ANSPs:

ANSP	
Inverness Airport	RAF Lossiemouth
NATS	

Table 4 – Air Navigation Service Providers

A1.1.3 National Aviation Organisations

We are engaging with the following National Aviation Organisations through members of the National Air Traffic Management Advisory Committee (NATMAC):

National Aviation Organisations	
Airlines UK	Airport Operators Association

National Aviation Organisations	
Airspace4All	Airfield Operators Group
Aircraft Owners and Pilots Association	Airspace Change Organising Group
Association of Remotely Piloted Aircraft Systems	Aviation Environment Federation
British Airways	Bae Systems
British Airline Pilots' Association	British Balloon and Airship Club
British Business & General Aviation Association	British Gliding Association
British Hang Gliding and Paragliding Association	British Helicopter Association
British Microlight Aircraft Association	British Model Flying Association
British Skydiving	Drone Major
General Aviation Alliance	Guild of Air Traffic Control Officers
Honourable Company of Air Pilots	Helicopter Club of Great Britain
Heavy Airlines	Iprosurv
Isle of Man CAA	Light Aircraft Association
Low Fares Airlines	Military Aviation Authority
MoD Defence Airspace & Air Traffic Management	NATS
Navy Command HQ	PPL/IR
UK Airprox Board	UK Flight Safety Committee
United States Air Force Europe (3 rd Air Force-Directorate of Flying (USAFE (3 rd AF-DOF))	

Table 5 – National Air Traffic Management Committee

A1.2 Non-Aviation Stakeholder Matrix

The following tables represents the key aviation stakeholders identified by CGH as potentially being affected by the proposal. CGH engaged with all of these stakeholders during the development of the DPs.

A1.2.1 Government and Local Authorities

CGH engaged with the following Authorities:

Member of Parliament	Constituency
The Scottish Government	The Highland Council
The Moray Council	The Scottish Government Energy Consents Unit

Table 6 – Members of Parliament

A1.2.2 Conservation and Environmental Organisations

CGH engaged with the following conservation and environmental organisation:

Conservation and Environmental Organisations
Cairngorms National Park Authority

Table 7 – Conservation and Environmental Organisations

A2 Engagement Activity

A2.1 Initial Engagement

This initial engagement letter was sent to all stakeholders listed in Appendix 1 via e-mail on 12th November 2021:

Force 9 Energy

272 Bath Street, Glasgow G2 4JR

tel:+44 (0)141 354 1410, website: www.force9energy.com

12 November 2021



By email only

Dear Sir or Madam

CLASH GOUR WIND FARM – AIRSPACE CHANGE PROPOSAL

Force9 Energy (F9), jointly with EDF Energy Renewables Limited (EDFER) is planning to develop the Clash Gour Wind Farm in the name of its wholly owned subsidiary, Clash Gour Holdings Limited (CGH). Clash Gour will be a substantial onshore wind farm which will be located in the Moray Council Area, approximately 13 Nautical Miles (NM) southwest of Royal Air Force (RAF) Lossiemouth and 15 NM southeast of Inverness Airport. Clash Gour will consist of 48 wind turbines with a maximum blade tip height of 180 metres (m) above ground level. The location of the wind farm is set out in the figure attached to this letter.

I am writing with regards to an Airspace Change Proposal (ACP) which may affect you or your organisation, which Osprey Consulting Services Ltd (Osprey) are delivering on behalf of CGH, following the Civil Aviation Authority (CAA) Civil Aviation Publication (CAP) 1616 Airspace Change Process.

As part of the development consent process, CGH, through F9, has engaged with all relevant aviation stakeholders to determine the impact of Clash Gour's wind turbines on aviation radar systems and operations. In particular, both the Ministry of Defence

(MoD) and Inverness Airport have confirmed that, without mitigation, the development will have an adverse impact on their ability to provide Air Traffic Services (ATS) due to interference caused by wind turbine generators to the Primary Surveillance Radar (PSR) at RAF Lossiemouth and Inverness Airport. This ACP, called 'Clash Gour Wind Farm', has been initiated in order to manage the development of both airspace and radar related mitigation options. Further information on the project can be found on the CAA Airspace portal [here](#).

This ACP is currently at Step 1B of the CAP 1616 process, where the change sponsor (CGH) is required to identify and communicate the Design Principles (DPs) to be applied to the airspace change design. An important part of Step 1B is for the DPs to be drawn up through discussion between the change sponsor and affected stakeholders so that we have a good level of understanding as to what design considerations are important to stakeholders. Stakeholders include the aviation community and representative bodies of the area within or near where the ACP is proposed.

Design Principles provide the framework for 'how should we go about designing, what is important to us, & to stakeholders'; they do not stipulate 'what sort of thing should we design'. We wish to ask you for your feedback on a number of draft DPs that we have provided below for this proposed change and ask:

1. Is the wording right; how should they be prioritised relative to each other?
2. What is important to you?
3. Should there be more, or fewer?

Please can you review and provide us your comments? If you have any suggestions for changes or additional design principles, we welcome your input.

DP1 Safety

Maintain or enhance current levels of safety.

DP2 Operational (Resilience)

Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

DP3 Operational

Airspace change will maintain or enhance operational resilience of the Air Traffic Control (ATC) network.

DP4 Operational

Airspace change will have minimal impact on operations/capacity of airport operators and ANSPs.

DP5 Environmental

Minimise environmental impacts to stakeholders on the ground.

DP6 Economic

Minimise economic impact on aircraft operators and to ensure costs and resources are proportionate.

DP7 Technical

Base the airspace change on the latest technology available.

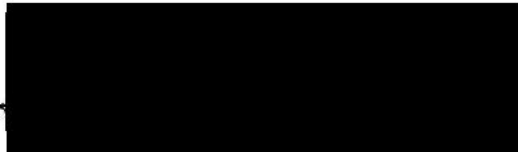
- This technology could relate to navigation, radar enhancements or radar data processing etc.
- The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer.
- Seek to create simple, easily definable solution.

It is our aspiration that any proposed ACP will seek to strike the right balance between being proportionate whilst looking for opportunities to release as much wind farm development potential as is considered reasonable.

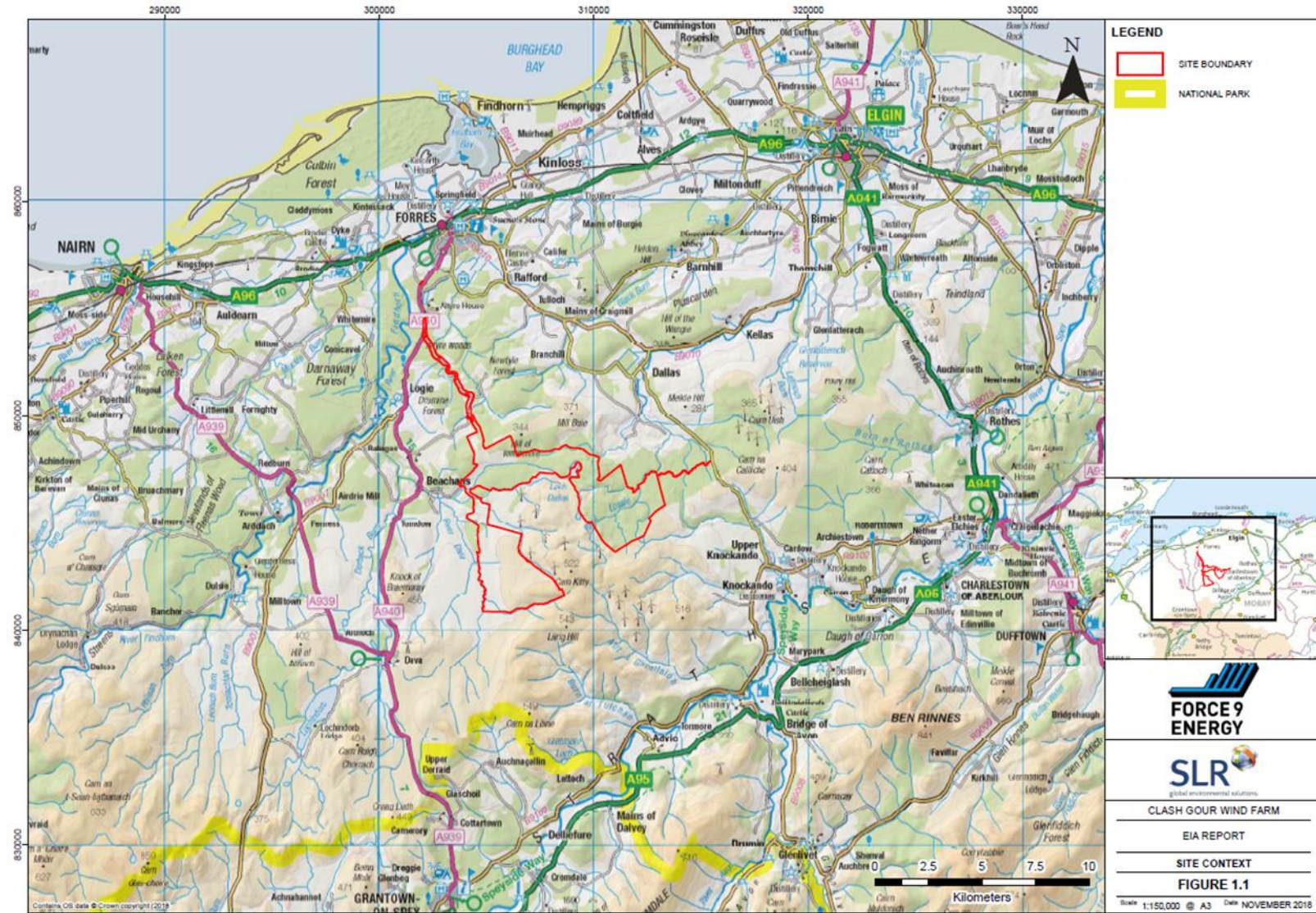
Once we have discussed DPs with all stakeholders, we will make updates to the DPs (if feedback requires it) and ask for final comments.

I would be grateful if you could review these draft Design Principles for the Airspace Change required for the Clash Gour Wind Farm development and provide feedback by **10 December 2021**. We intend to hold a focus group to discuss the ACP design principles and seek feedback on the 30th November in Moray, at a location to be finalised. If you are interested in attending the focus group (max 2 representatives per group), please advise by return and we will follow up with details of venue and time of the event.

Yours sincerely

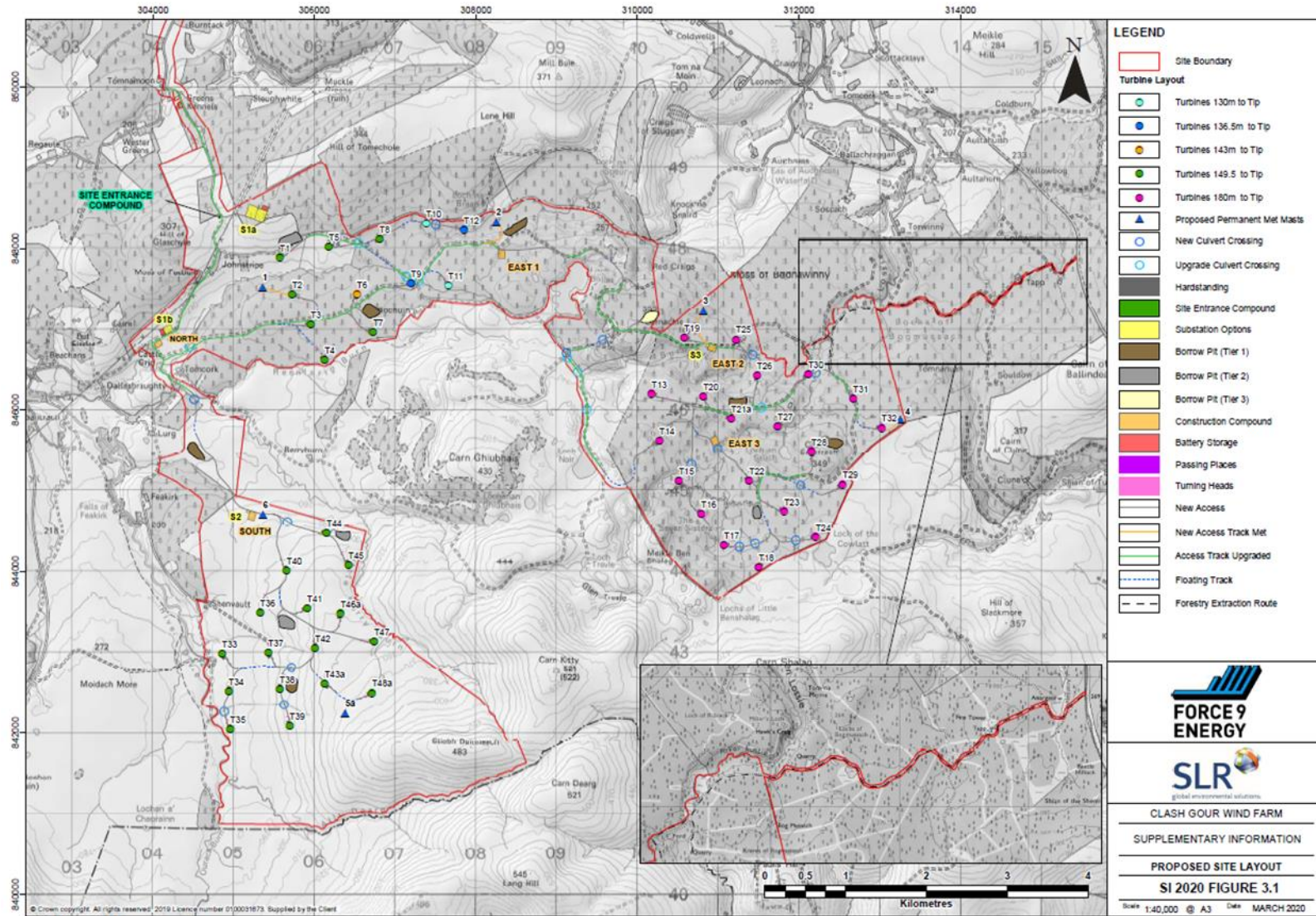


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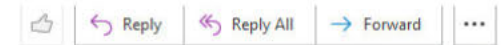


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A2.2 Follow-Up Engagement

Follow-up engagement was completed after the delivery of the initial engagement letter. This follow-up engagement was in the form of an email which was sent on the 23rd November 2021 to all stakeholders listed in Appendix A1.

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Tue 23/11/2021 13:31

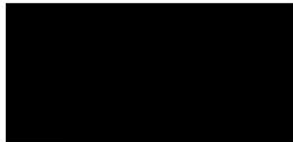


Dear Sir or Madam,

We recently sent you a letter regarding the proposed ACP associated with our proposed Clash Gour wind farm in Moray, Scotland (per the email below). The letter intimated a focus group to discuss the initial Design Principles set out therein. We can confirm the focus group will take place between 11am and 1pm in Elgin Town Hall on the 30th November. We would appreciate it if you would intimate your intention to attend the focus group (no more than 2 representatives per organisation). It would also be helpful if you would provide us with comments on the DPs associated with ACP prior to the focus group, for discussion. The focus group will introduce the proposed development, highlight the need for an ACP and discuss the DPs we set out in the letter. We will also highlight our proposed future steps in taking the ACP forward for consideration.

If you are unable to attend the focus group we would appreciate your comments directly on the proposed DPs by the 10th of December, as set out in the letter.

Yours faithfully



Best Engagement Award, 2018
Force 9 Energy for Clash Gour Wind Farm
Community Shared Ownership Opportunity

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A3 Engagement Responses

A3.1 Babcock

From: [REDACTED]
Sent: 22 November 2021 16:43
To: [REDACTED]
Subject: RE: CAUTION: External email - Clash Gour Wind Farm - Airspace Change Proposal (UNCLASSIFIED)

Classification: UNCLASSIFIED

[REDACTED]

I am the Chief Pilot for Babcock Onshore and would like to thank you for allowing me the opportunity to comment on your Clash Gour Wind Farm Change Proposal.

As the operators of HEMS, Air Ambulance and Police helicopters in Scotland I have discussed your proposal with our Senior Scottish pilots and believe that your change proposal is unlikely to impact on our ability to conduct Category A missions unless tasked within the field although this is unlikely as there are no major trails or roads within the field.

As the proposal will effectively create a 'super bubble' with the existing wind farm sandwiched between the 'new' ones could I ask what the difference will be between the existing lighting pattern and the new proposal, this will also allow us to figure out how they look together as one large bubble.

To be honest so long as the perimeter is well lit the field could have some in the middle without lights or one light per cluster etc as long as the tallest clusters are well lit.

To answer your 3 questions:

1. Wording looks fine.
2. Light patterns and visual perception from low altitudes from all headings are important to us.
3. Happy with amount of turbines. Question is only how many will be lit.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

www.babcockinternational.com



 Please consider the environment before printing this email

A3.2 British Gliding Association

British Gliding Association Response to Clash Gour APC-2021-046

This response is submitted on behalf of the British Gliding Association. The British Gliding Association (BGA) is the governing body of sport gliding in the UK and represents the interests of some 6500 members of the UK's 78 gliding clubs including the operators of some 2200 sailplanes.

The BGA supports in principle the building of onshore wind farms. However GA and gliding in particular is severely adversely affected by the creation of new controlled airspace including TMZs and RMZs. Most gliders flying in the area of the proposed wind farm do not have SSR and so cannot comply with a TMZ's basic requirement. Generally they do have aeronautical radios but most pilots do not have the necessary radio operator's licence (FRTOL) required to communicate with Air Traffic Control since none is required for glider flying outside controlled airspace, making alternative means of access to TMZs by radio approval, or entry to an RMZ, unavailable to them.

The BGA has recently been running on-line training courses for the acquisition of an FRTOL and the numbers licensed are slowly increasing, but even if this obstacle is eliminated there is still a fundamental issue with using a radio in a glider. Glider flying is not like flying a powered aircraft, whereby one sets the throttle and the heading, trims out and trundles along in the cruise without needing too much attention to the flying. A glider pilot flying cross country, especially in the Highlands of Scotland, has to concentrate 100% on the soaring all the time. Moment to moment decisions are taken as to the heading, speed and general strategy in order to make the best of the lift and stay airborne over significant areas of unlandable terrain.

The author is a (now retired) commercial helicopter pilot with 1000s of hours of IFR flying and very accustomed to talking to ATC on the radio. I am also a light aircraft pilot and use the radio without difficulty. But I can definitely say that when in my glider, as soon as I need to talk to ATC on the radio, my soaring performance markedly diminishes and I find myself flying out of the lift. A non-professional pilot lacking experience and nervous of talking to ATC is likely to find it more distracting and the most probable outcome is that they will decide to avoid the airspace rather than risk distraction causing them to get low and having to land out in less than ideal terrain.

We note that even in the first assessment meeting minutes, the creation of a TMZ is mentioned repeatedly. The impression being that the solution has already been decided, now we just need to adjust the ACP to justify it! Which surely is not the right way round.

Firstly it needs to be determined evidentially what the extent of the problem for EGQS and EGPE would be and its impact on safety. Not just the opinion of someone for whom the creation of controlled airspace carries no down-side. It needs to be determined whether the "do nothing" option would reduce safety to below an acceptable level in comparison to the reduction of safety and loss of freedoms to other airspace users who are excluded from the airspace for the reasons given above. We have no idea how significant the radar clutter from the wind farm would be, we have no idea whether or not EGPE and EGPK are "talking up" the problem because for them, there is no down-side to say a TMZ. We need to have scientific and factual evidence demonstrating the extent of the problem.

We also note that there is a suggestion that an airspace solution would be a temporary one pending a technical solution. We have found in the past with similar ACPs that once the airspace is in place, there is zero motivation for those responsible to actually create or implement this “technical solution” and so the airspace restriction becomes permanent by default.

Moving on to the DPs, first a word about safety. In general, safety and freedoms are mutually exclusive on a sliding scale. You do something to improve safety often by reducing people’s freedoms. Of course sometimes a reduction in freedom is necessary to maintain or create an adequate level of safety. But where an adequate level of safety is extant, further increasing safety at the expense of freedoms is a bad policy.

Therefore regarding DP1 we disagree with “Maintain or enhance current levels of safety”. Maybe the level of safety is already more than adequate and a slight reduction can be tolerated if to maintain it would result in significant operational restrictions. Bearing in mind the very low density of traffic in the area of the proposed wind farm, versus that for example in Class G in the South East of England, first thoughts are that the current level of safety in this piece of airspace is already significantly greater than “adequate”. If those wishing to add airspace restrictions feel that safety would no longer be adequate without adding the restrictions, we feel that they need to demonstrate this factually.

In addition, an ACP should consider not only the safety of aircraft within the proposed airspace, but the overall safety ie also the safety of those aircraft displaced from the airspace into the surrounding area. As an example when thermal soaring cross country in a glider, generally the best lift is found in hilly areas such as the proposed site of the wind farm. Valleys such as the Spey Valley and coastal areas are often affected by sea breeze – cold air flowing inland and up the valley from the sea – which removes any thermal lift. Therefore by displacing gliders from an area of good lift, into one with no lift, the probability of having to land in an unknown farmer’s field is greatly increased, and that is not without risk.

We therefore propose that the wording for DP1 should be “Ensure an adequate level of safety, taking into account the safety of aircraft displaced into the surrounding area by any proposed airspace restrictions.”

Similar thoughts apply for DP3. The operational resilience of ATC must be adequate. There is no need to make it more than adequate if the consequence is increased restriction and loss of safety for non-participating aircraft. We also note that the sentence starts with “Airspace change will ...” which gives the impression that an airspace change is a *fait accomplis* even at this first stage of the ACP.

Our proposed wording for DP3 is therefore “Ensure adequate operational resilience of the ATC network.”

For DP4, in addition to the previously mentioned “*fait accomplis*” we would point out that it is not just airport operators and ANSPs who operate in this airspace and whose operations could be affected. You will be aware that Highland Gliding Club at Easterton Farm is about 15km to the East of the wind farm, and Cairngorm Gliding Club at Feshiebridge about 50km to the South West. Pilots from these two clubs take their first tentative cross-country steps between these two clubs, so the creation of an “obstacle” on that route has a detrimental effect on their operations.

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Therefore we propose for DP4 “Strive for minimal impact on the operations/capacity of airport operators, ANSPs and other aviation organisations”

For DP6 we agree with the principle to an extent, but we disagree with “proportionate” as the only criteria. In our opinion if aircraft operators have to spend money on additional equipment to gain access to new airspace, it is only fair that those organisations wanting and or creating the need for the airspace bear that cost and it does not fall on those who do not want or need it. Gliders can be bought for just a few thousand pounds and so if someone who owns a glider worth perhaps £5000 has to spend another £2500 fitting a transponder in order to access the airspace that they didn’t want or need, this seems unjust.

As a final point we note that this ACP is not being sponsored by the people who actually want new airspace (EGQS and EGPE) which seems a little odd. We are concerned that orphaned airspace could be created, that is not “owned” by any aviation organisation, leaving it stuck in limbo, should it transpire that airspace such as a TMZ is actually required by the facts.

[REDACTED]
British Gliding Association
7/12/21

A3.3 General Aviation Alliance

From: [REDACTED]
Sent: 23 November 2021 04:09
To: [REDACTED]
Subject: RE: Clash Gour Wind Farm - Airspace Change Proposal

[REDACTED]
Due to the vagaries of e-mail, unless you are able to respond immediately to the points raised, please acknowledge receipt of this e-mail with an indication of when the full answer can be expected.

Thank you for including the General Aviation Alliance (GAA) in your CAP1616 airspace consultation.

Please forgive any repetition of details that you already know. The GAA (www.gaalliance.org.uk) is an independent group and partnership of organisations representing, as far as possible, UK General Aviation (GA), and Sports and Recreational Aviation interests (S&RA). Its objective is to promote and protect the cost-effective use of GA and S&RA aircraft, and their owners, pilots and the associated operations, and to actively participate in the formulation of regulations and actions that may affect their interests so as to ensure the welfare and the free and safe movement of these aircraft, pilots, owners and the associated operations. By using the GAA as a consultee you can be sure that an appropriate person within all of the following organisations will be kept informed of the progress of your ACP and thereby reach the vast majority of UK GA operations:

BBAC - British Balloon and Airship Club
BGA - British Gliding Association
BHPA - British Hang Gliding and Para Gliding Association
BMAA - British Microlight Aircraft Association
BMFA - British Model Flying Association
BPA - British Parachute Association

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HCGB - Helicopter Club of Great Britain
LAA - Light Aircraft Association
PPL/IR Europe - European Association of Instrument Rated Private Pilots
RAeC - Royal Aero Club of the United Kingdom

The individual organisations may choose to also submit their own responses directly to you.

Please find below the GAA's comments.

DP1 Safety. Maintain or enhance current levels of safety.

We wish to see this replaced with, "Ensure an acceptable level of safety for aircraft within and displaced by the proposed airspace".

DP2 Operational (Resilience). Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

We wish to see the following sentence added, "All possible negative impacts upon any airspace user must be mitigated to the satisfaction of that airspace user."

DP3 Operational. Airspace change will maintain or enhance operational resilience of the Air Traffic Control (ATC) network.

No comment.

DP4 Operational. Airspace change will have minimal impact on operations/capacity of airport operators and ANSPs.

No comment.

DP5 Environmental. Minimise environmental impacts to stakeholders on the ground.

No comment.

DP6 Economic. Minimise economic impact on aircraft operators and to ensure costs and resources are proportionate.

We wish to see the following sentence added, "All possible additional costs incurred by any airspace user, or user group, must be fully financed by the ACP sponsor to the satisfaction of the airspace user/group."

DP7 Technical. Base the airspace change on the latest technology available

No comment.

> We intend to hold a focus group to discuss the ACP design principles and seek feedback on the 30th November in Moray, at a location to be finalised.

When and where is this to be held as we wish to attend?

If a time has yet to be set may we suggest late afternoon\early evening as the most suitable?

Regards

[Redacted signature block]

A3.4 Inverness Airport



Inverness Airport, Inverness IV2 7JB
Telephone: [REDACTED]
E-mail: [REDACTED]

10 December 2021

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

CLASH GOUR WIND FARM – AIRSPACE CHANGE PROPOSAL

I write regarding your letter dated 12 November 2021 inviting comment and feedback on the proposed Design Principles (DP) to be applied to the proposed airspace change design.

Point 1.

Please find our comments on the wording below:

DP1 Safety

Maintain or enhance current levels of safety.

Inverness Airport has no comment on this DP

DP2 Operational (Resilience)

Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

This DP requires further explanation as to what is defined by ‘other airspace users.’ It is believed by Inverness Airport that there are airspace users other than General Aviation yet the use of i.e., indicates they are the only airspace users this DP relates to.

DP3 Operational

Airspace change will maintain or enhance operational resilience of the Air Traffic Control (ATC) network.

It is the opinion of Inverness Airport that the wording of this DP should be strengthened to read, ‘Airspace change shall maintain operational resilience of the Air Traffic Control (ATC) network.’ The aspiration to ‘enhance’ the operational resilience can remain as such.

DP4 Operational

Airspace change will have minimal impact on operations/capacity of airport operators and ANSPs.

It is the opinion of Inverness Airport that the wording of this DP should be strengthened to read, 'Airspace change shall have no impact on operations/capacity of airport operators and ANSPs.' If that is not adopted, then a quantifiable statement should be included rather than the subjective inclusion of 'minimal.'

DP5 Environmental

Minimise environmental impacts to stakeholders on the ground.

Inverness Airport has no comment on this DP

DP6 Economic

Minimise economic impact on aircraft operators and to ensure costs and resources are proportionate.

Inverness Airport has no comment on this DP

DP7 Technical

Base the airspace change on the latest technology available.

- This technology could relate to navigation, radar enhancements or radar data processing etc.
- The volume of airspace affected should be the minimum necessary to deliver requirements, whilst providing optimal safety buffer.
- Seek to create simple, easily definable solution.

Inverness Airport has no comment on this DP

Inverness Airport agrees that safety must be the first priority. Until DP2 is clarified it is difficult for Inverness Airport to categorically approve or challenge the relative prioritisation of the DPs. However, we would like to see DP4 moved above DP3

Point 2.

All the DPs are important to Inverness Airport; however, Inverness Airport is only directly affected by DP1, DP3, DP4 and potentially DP2.

Point 3.

At this stage it is felt that the number of DPs are sufficient for the stage of consultation.

Thank you for the opportunity to provide feedback.

Yours sincerely,

[Redacted signature]

[Redacted contact information]

A3.5 Highland Council



[Redacted]
[Redacted]
Force 9 Energy,
272 Bath Street,
Glasgow, G2 4JR

Please ask for: [Redacted]
Direct phone: [Redacted]
Your ref: WIN-300-4
Our ref: 18/05966/S36
Date: 10 December 2021

By email only [Redacted]

[Redacted]

Application for the construction of Clash Gour Wind Farm - comprised of 48 turbines with a ground to blade tip height of between 136 and 176 metres, with an installed capacity in excess of 50MW

RESPONSE TO AIRSPACE CHANGE PROPOSAL NOVEMBER 2021 FROM HIGHLAND COUNCIL

The Highland Council was notified of the Airspace Change Proposal for the above Section 36 Application on 12 November 2021 and invited to attend a focus group to discuss further on 30 November 2021. Representatives from Highland Council did not attend the focus group and the Planning Authority has no further comment on the submitted information at this stage.

Whilst the Planning Authority has no further comment it would be beneficial to be kept updated as the proposal progresses.

Yours Sincerely

[Redacted signature]

A3.6 Ministry of Defence

From: [REDACTED]
Sent: 09 December 2021 09:55
To: [REDACTED]
Subject: RE: Clash Gour Wind Farm - Airspace Change Proposal

Good morning,

With reference to your engagement email below, the MOD agrees that the DPs are appropriate and weighted with appropriate priority, with only one suggested amendment.

Current:

DP2 Operational (Resilience)

Minimise negative impact on other airspace users (i.e. General Aviation (GA)).

Proposed:

DP2 Operational (Resilience)

Minimise negative impact on other airspace users (e.g. General Aviation (GA)).

The rationale for change would be that i.e. (id est – meaning ‘that is’) clarifies other airspace users specifically as GA, whereas e.g. (exempli gratia – meaning ‘for example’) highlights them as one of many airspace user groups, thereby including military airspace users.

I will be the MOD POC for your ACP, please get in touch as required.

Best regards,

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]