Moray Offshore Wind Farm (West) Ltd

Moray West

Gateway Documentation:

Stage 3 Consult

3A: Draft Consultation Strategy

Authorship

Action	Role	Date
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References

Ref No	Description	Hyperlinks
1	Moray Offshore Windfarm (West) Ltd Phase 1 CAA web page – progress through CAP1616	link
2	Stage 1 Assessment Meeting Presentation	link
3	Stage 1 Assessment Meeting Minutes	link
4	Stage 1 Design Principles	link
5	Stage 2 Design Options	link
6	Stage 2 Design Principle Evaluation	link
7	Stage 2 Options Appraisal (Initial) & Safety Assessment	link
8	Stage 3 Full Options Appraisal	Link

Publication history

Issue	Month/Year	Change Requests in this issue
1.0	Oct 2020	First issue released to CAA.
2.0	Oct 2020	The following section has been updated, following review by the CAA: *Section 3.5* – Expanded to explain why only a single option is being consulted on.

Contents

1. Introduction 4
2. Objectives 5
3. Summary of Engagement Activity Undertaken to Date 5
4. Audience 5
5. Approach 6
6. Materials 7
7. Consultation Duration 8
8. Unexpected events, escalation, extension 9
9. Reversion Statement 9
10. Conclusion and Next Steps 10
11. Annex A: List of Stakeholders 11

1. Introduction

1.1 This document forms part of the document set required in accordance with the requirements of the CAP 1616 airspace design process.

1.2 The proposed Moray Offshore Wind Farm (West) Ltd (MOWWL) development will be located approximately 22.5 km (12.1 NM) offshore from the Caithness coastline, 24 km (13 NM) from the Aberdeenshire coastline.

1.3 The proposed development will comprise up to 85 Wind Turbine Generators (WTGs), and these would be detected by the Air Traffic Control (ATC) Allanshill Primary Surveillance Radar (PSR) and result in significant clutter on radar displays. This would affect Air Traffic Control Officers' (ATCOs) ability to identify aircraft via primary radar returns within the vicinity of the wind farm and hence introduce the risk of an ATCO failing to detect a potential conflict between aircraft. The large number of turbines could also interfere with radar tracking and lead to saturation of the radar processing systems.

1.4 As such, a suitable Primary Radar Mitigation Scheme (PRMS) to mitigate this risk is required prior to construction of this windfarm.

1.5 This Airspace Change Proposal (ACP) is proposing that radar Range Azimuth Gating (RAG) blanking, more commonly known as radar blanking, is deployed over the wind turbine locations prior to construction of the proposed MOWWL wind farm as the PRMS. However, radar blanking will also remove primary returns of aircraft within the blanked area. As such, a complementary Transponder Mandatory Zone (TMZ) will need to be established to ensure that aircraft overflying the wind farm are transponder equipped and hence will be visible to ATC using Secondary Surveillance Radar (SSR).

1.6 The changes proposed in this ACP only impact flights over the sea (more than 8 NM offshore). Hence, in accordance with the levels as defined in CAP1616, the CAA has categorised this proposal as a Level 2B change. In line with the requirements for a Level 2B change, the environmental impact assessment has been conducted on the basis of CO_2 emissions only. There will be no perceptible change to noise impacts to stakeholders on the ground, hence no noise analysis has been undertaken; equally there will be no discernible change in impact on tranquillity or biodiversity.

1.7 Previous documents (References 4-7) have reduced the number of Design Options being considered (in addition to the do-nothing option) to just one. This option can be summarised as follows:

TMZ with 2 NM buffer extended to align with Existing and Planned TMZs (Option C)

Associated with RAG blanking, this combination has been assessed as the optimum PRMS to mitigate the impact of WTGs on the Allanshill PSR. RAG blanking and TMZ will provide:

- RAG blanking which will offer effective suppression of all primary radar clutter associated with WTGs.
- Promulgation of a TMZ over the RAG blanked area will require that aircraft within the TMZ area are transponder equipped and hence will remain visible to ATC via SSR.
- The TMZ will be extended to include a 2 NM buffer which is adequate to ensure ATC has sufficient time to identify when infringement of the TMZ is taking place and to take appropriate action.
- The proposed Option C (TMZ with radar RAG blanking) will provide a safe and effective mitigation against the radar issues associated with WTGs.

2. Objectives

2.1 This ACP is proposing to implement a TMZ around the MOWWL development. The development is located in Class G, uncontrolled airspace, and will be built adjacent to the Moray Offshore Wind Farm (East) Ltd. (MOWEL) and the Beatrice Offshore Wind Farm Ltd. (BOWL) developments.

2.2 The MOWEL and BOWL developments have both required a PRMS to be in place prior to construction. In each case, RAG blanking and TMZ was deemed the optimal solution. This ACP proposes to introduce a new MOWWL TMZ which will abut and align with the existing TMZs for simplicity.

2.3 MOWWL wants to ensure that appropriate stakeholders, who could be negatively or positively impacted by these changes, are made aware of this airspace proposal and are given the opportunity to submit feedback about the TMZ design.

2.4 We also aim to ensure that the materials we produce will provide stakeholders with enough information to make an informed response; the length of the consultation is appropriate for responses and works within the project scope.

3. Summary of Engagement Activity Undertaken to Date

3.1 Engagement activities have been carried out with the relevant stakeholders (listed in Annex A) identified prior to the Stage 1 assessment meeting (Reference 2).

3.2 Engagement during Stage 1 focused on the development of a series of Design Principles (Reference 4), which were used to evaluate Design Options against.

3.3 Engagement during Stage 2 focused on the development of Design Options (Reference 5-7), to provide suitable mitigation against the effects of WTGs on the Allanshill PSR.

3.4 As yet, no stakeholder has objected to the proposal and feedback has been positive.

3.5 During the Stage 2 options evaluation, Design Option C was the only option to fully meet all the design principles and it was stated as a preference by the following stakeholders: MOD, Bristow, MCA, Aberdeen ATC/Airport. No other stakeholders stated a preference for any design option. For these reasons, Design Option C – RAG blanking of the windfarm area with complimentary TMZ with 2 NM buffer extended to aligned to align with Existing and Planned TMZs – shall be the only option taken forward to consultation.

4. Audience

4.1 MOWWL does not plan to target organisations whose primary interest is environmental (e.g. noise, local air quality). There would be no change in impact as the proposed changes are all offshore, at least 8 NM from the Caithness coastline.

4.2 The stakeholders, who were engaged during Stages 1-2, will be targeted and asked to respond to the consultation. These are summarised under paragraphs 4.3– 4.6 below and are listed in Annex A.

4.3 MOWWL will continue to target appropriate members of the National Air Traffic Management Advisory Committee (NATMAC) forum which includes representatives from various aviation organisations.

4.4 MOWWL will continue to target Helicopter Operators which have been identified as currently operating within the vicinity of the affected airspace. This includes the Maritime and Coastguard Agency (MCA) whose views will be represented by Bristow Helicopters, who hold the contract for helicopter search and rescue in this area.

4.5 MOWWL will continue to target organisations providing an Air Traffic Control Service which may be affected by this airspace change. This includes Ministry of Defence, NATS En-route Ltd (NERL), NATS Prestwick ATC, Aberdeen ATC and Highlands and Islands Airports Ltd (Wick and Inverness Airports).

4.6 Any other individual or organisation not specifically targeted may submit a response; however, MOWWL are only specifically targeting the organisations discussed in this document, listed in Annex A.

5. Approach

5.1 Stakeholders have been engaged during Stages 1 and 2 of the CAP1616 airspace change process. MOWWL will now seek in-depth responses from the stakeholders targeted in Stages 1 and 2, listed in Annex A.

5.2 Stakeholders will be informed via email, which will include a link to the airspace change portal, once the consultation has launched. They will be able to view and download the consultation document on the online portal alongside links to supporting documentation. This is where they can also submit a response to the consultation.

5.3 A link to the airspace change portal will be provided on the MOWWL website, www.moraywest.com.

5.4 MOWWL will commission NATS to put a link on the www.nats.aero and the NATS customer affairs websites.

5.5 Any individual or organisation may submit a response; however, MOWWL are only targeting the organisations discussed in this document. The CAA's airspace change portal (Reference 1) is the primary public source of information.

5.6 Stakeholders needing a paper copy of the consultation material may write to the postal address enclosing a stamped self-addressed envelope. Respondents will then be able to submit a postal response to the consultation at the same address. MOWWL will not commit to respond to postal responses directly; however, respondents are welcome to include a stamped envelope if they do require a reply. The consultation postal address will be available online and within the consultation document.

5.7 A reminder email will be sent to stakeholders 6 weeks prior to the planned consultation closure. Assuming approval for the planned 10-week consultation period described in Section 7 is granted, this will be on 7th December 2020.

5.8 A final reminder email will be sent to stakeholders 1-week prior planned consultation closure. Assuming approval for the planned 10-week consultation period described in Section 7 is granted, this will be on 11th January 2021. Stakeholders which have actively engaged with us

during Stage 1 and 2 of the airspace change process will be followed up with a telephone call if they have not responded to the consultation.

5.9 Responses will be moderated and uploaded to the portal by the CAA. Should responses contain requests for clarification, a list of FAQs will be added to the consultation website.

5.10 At the end of the requested 10-week consultation deadline the responses will be analysed and themed; any late responses may not be included in the subsequent analysis. This is dependent on CAA approval for a reduced consultation, as covered in Section 7.

5.11 MOWWL will acknowledge receiving responses by sending a completion message back to the consultee, using the email address they provide.

5.12 In the event of any unexpected challenges or events, MOWWL will directly communicate and negotiate with stakeholders in order to resolve any issues and reach a mutual agreement.

6. Materials

6.1 Our stakeholder audience are considered to be aviation experts; therefore, we plan to use aviation technical language in the consultation material, in English only. We plan to conduct the consultation via the internet (including email and the online consultation portal). However, respondents will also have the alternative option to submit a postal response. Any specific questions will be answered directly and, if required, Frequently Asked Questions (FAQs) will also be made available on the consultation portal.

6.2 The online consultation portal will include an overview into the proposed changes, the consultation document available for download (covered in section 6.4 below) and a survey which will allow users to submit feedback.

6.3 The portal will also include a questionnaire comprising a number of questions for users to complete as feedback. They will focus on the scope of the proposal, ask stakeholders to gauge their level of support for the proposed design option and provide users the option to submit additional comments. Information will also be captured on the respondent; some of this will be mandatory (such as organisation being represented) and others optional (such as a postcode).

6.4 MOWWL has produced a Consultation Document which will be available on the airspace change portal. This document will contain information on the current relevant airspace; the proposed change which is MOWWL's preferred design option; and the expected benefits and impacts of the proposal. It will allow stakeholders to provide an informed opinion on the proposal.

6.5 We will also use the online consultation portal to include any FAQs we receive during the consultation to ensure all stakeholders have sight of these.

6.6 The Stage 3 Options Appraisal (Full) document (Reference 8) contains full details of benefits and impacts relating to this proposal. No analysis relating to noise or local air quality has been completed because of the scaling of this proposal, as mentioned above in section 1.4.

6.7 The introduction of a TMZ is not concerned with increasing capacity, it is about maintaining safety by mitigating the risk resulting from the loss of PSR tracks as a result of radar blanking.

6.8 All commercial air traffic is transponder equipped and will not be affected by the implementation of a TMZ.

6.9 The majority of GA traffic are transponder equipped and will remain unaffected by the implementation of a TMZ. The volume of GA Aircraft without an operational transponder is very low, <2 flights per week and can be considered negligible.

6.10 Forecasting the quantity of General Aviation (GA) traffic is not feasible as they are irregular, with no requirement for pilots to file a flight plan or speak to ATC when operating outside of controlled airspace.

6.11 Owing to the ongoing Covid-19 crisis affecting the aviation sector, traffic forecasts have become less reliable.

6.12 As such, a traffic forecast has not been provided as it will be unaffected by the implementation of a TMZ.

6.13 An analysis of the traffic transiting the proposed TMZ location has been undertaken for August 2019 to determine the quantity of flights (PSR-only) that might be affected by this change. August was chosen as a peak summer month and would represent a high proportion of GA flights.

6.14 The quantity of flights operating within the region which may be affected by a TMZ is negligible. As such, there will be no discernible aviation related benefit or disbenefit as a result of changes to CO_2 emissions.

6.15 Due to the lack of a reliable traffic forecast and the expected negligible impact of this proposal on CO_2 emissions, a WebTAG CO_2 emission analysis has not been provided.

6.16 After the consultation, a consultation feedback document will summarise the themes and MOWWL's response to issues raised – this may involve making changes to the design. The feedback document will be available for download via the CAA portal within 2-weeks of the consultation period ending, and the final option proposed in the ACP will be based on the final design described in the feedback report.

7. Consultation Duration

7.1 The timeline for this proposed airspace change is fixed by an agreed target implementation date of early 2024 which is the target AIRAC implementation date prior to the hanging of the first blades. This has been determined by the programmed construction of the wind farm commencing Q2 2022, with the first turbine rotation Q1 2024.

7.2 We are requesting a consultation period of 10-weeks, comprising of 6-weeks before Christmas and New Year and 2-weeks after. An additional 2-weeks is included to allow for Christmas and New Year; 10 weeks in total.

7.3 MOWWL contends that this 10-week consultation is proportionate for this project. This is due to the keenly targeted list of stakeholders, the limited number of aviation stakeholders affected by the proposed change, the geographical location of the proposed wind farm and TMZ as well as the lack of potential impact on non-aviation local stakeholders. This is further justified by the pre-consultation engagement activities we have undertaken with our stakeholders and the relative simplicity of the TMZ proposal itself.

7.4 MOWWL are confident that stakeholders are already in a well-informed position to respond to the consultation, on designs they have had the opportunity to influence in advance of the

consultation. Section 3 provides a summary of engagement activities undertaken and Annex A provides a list of the stakeholders with whom MOWWL has already engaged.

7.5 Subject to passing the Consult Gateway, MOWWL plans to launch the consultation on Monday 9th November 2020 and to close it on 17th January 2021. This is a total period of 10 weeks.

8. Unexpected events, escalation, extension

8.1 We have made robust plans for this consultation but, by definition, unexpected events may occur.

There are three escalating outcomes, on a sliding scale which can be generalised as:

- A short pause in the consultation, rapid resumption, closing as planned.

  Minimal impact, no change to project timeline.

- A significant pause in the consultation, delayed resumption, consider extending the closing date.

  Low to medium impact, potential delay to implementation date unless any agreed extension period can be absorbed into the remaining project timeline.

- A major event causing significant disruption to the consultation, resumption may not be possible, consultation may be significantly extended, partially repeated or relaunched, or withdrawn until further notice.

  High impact, implementation date at risk, project re-planning required.

Should such an event manifest, we will analyse the situation, consider where the event falls in the scale above, and contact our regulator for guidance on resolution.

8.2 Coronavirus Pandemic (Covid-19)

MOWWL is mindful of the current Covid-19 pandemic and understands that this is a dynamic situation. MOWWL are in communication with the CAA regarding the potential impact of Covid-19 on this consultation and are monitoring the recommendations of Public Health England. Due to the perceived low impact of this ACP on stakeholders and the on-line approach of this consultation, a 10-week consultation period for this ACP is still considered adequate. We will continue to be flexible as the situation dictates. To mitigate the risk to public health, the consultation will be conducted via the online portal (CitizenSpace) and any other engagement will be done remotely via telephone/video conferencing and/or email as opposed to any face-to-face meetings until it is safe to do otherwise. Emails when sent will request delivery and read-receipts to confirm delivery and whether the email has been read.

MOWWL will however continue to review the situation regularly and will revise the duration of the consultation if necessary. The CAA will be kept informed of the rate of responses during consultation. In the event that there is a change, the consultation portal will be amended to reflect this and all stakeholders listed in Section 11 will be notified by email.

9. Reversion Statement

9.1 MOWWL considers the proposed option to be the 'do minimum' option. A 'Do nothing' option would not provide mitigation against radar clutter. Should the proposal be approved and

implemented, it would not be possible to revert to the pre-implementation state without affecting NATS ATC operations. The proposed changes would be considered permanent unless a cost-effective alternative mitigation scheme is developed and proposed.

9.2 In the unlikely event that there are unexpected issues caused by this proposal, then short notice changes could be made via NOTAM. For a permanent reversion, the changes would have to be reversed by incorporating this into an appropriate future AIRAC date to align with NATS' engineering updates; of which there are only four per year.

10. Conclusion and Next Steps

10.1 There is one design option being proposed for this airspace design, as listed in Section 1.5. Full descriptions of the design and why the option was chosen as the preferred option can be found in the airspace change documentation published on the CAA website (Reference 1).

10.2 MOWWL's proposed and preferred option for the airspace design is Design Option C:

TMZ with 2 NM buffer extended to align with Existing and Planned TMZs.

10.3 MOWWL considers this consultation strategy to be reasonable and proportionate. MOWWL has identified the relevant stakeholders, engaged with those most likely to be impacted and made clear that there is scope to change the proposal based on their feedback.

10.4 Subject to passing the Stage 3 Gateway Assessment, MOWWL will finalise the consultation material and set up the appropriate online consultation web page and launch the consultation.

11. Annex A: List of Stakeholders

Type	Stakeholder
NATMAC	Aircraft Owners and Pilots Association (AOPA)
	Airlines UK
	Airport Operators Association (AOA)
	ARPAS - Association of Remotely Piloted Aircraft Systems
	Aviation Environment Federation (AEF)
	BAe Systems
	BBAC - British Balloon & Airship Club
	BHPA - British Hang gliding & Paragliding Association
	BMAA - British Microlight Aircraft Association
	BMFA - British Model Flying Association
	British Sky Diving
	British Airline Pilots Association (BALPA)
	British Business and General Aviation Association (BBGA)
	British Helicopter Association (BHA)
	BGA- British Gliding Association
	GAA- General Aviation Alliance
	Guild of Air Traffic Control Officers (GATCO)
	Heavy Airlines
	Helicopter Club of Great Britain (HCGB)
	Light Aircraft Association (LAA)
	Low Fare Airlines
	MOD DAATM
	PPL/IR (Europe)
	British Airways (BA)
Helicopter Operators	Babcock Helicopters
	Bristow Helicopters
	CHC Scotia
	NHV Helicopters
	Maritime and Coastguard Agency (MCA)
ATC	Aberdeen ATC
	Highlands and Islands Airports Ltd (HIAL)
	NATS En Route Limited (NERL)
	NATS Prestwick
Airports	AGS Airports Limited, Aberdeen
	Wick Airport
	Inverness Airport

