



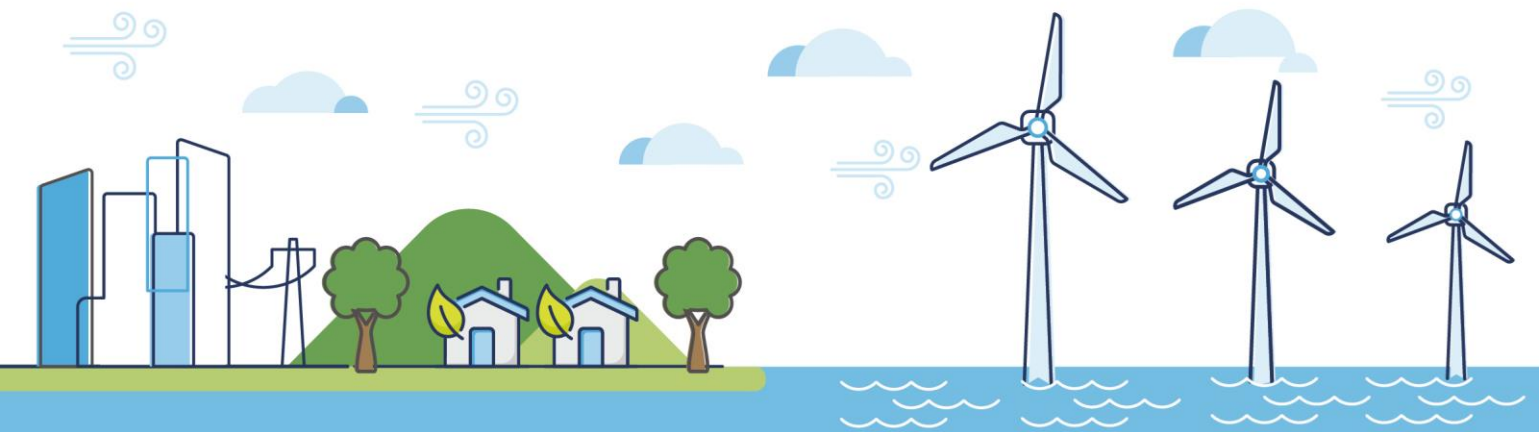
Morecambe Offshore Windfarm: Generation Assets Examination Documents

Volume 9

The Applicant's Response Spirit Energy Deadline 1 Submissions

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Glossary of Acronyms

ALARP	As low as reasonably practicable
AltMoC	Alternative Means of Compliance
CAA	Civil Aviation Authority
CEA	Cumulative Effect Assessment
DCO	Development Consent Order
EIA	Environmental Impact Assessment
EPP	Evidence Plan Process
ES	Environmental Statement
ETG	Expert Topic Group
EU	European Union
ExA	Examination Authority
HSE	Health and Safety Executive
IMC	Instrument meteorological conditions
IMC	Instrument meteorological conditions
IRPA	Individual Risk Per Annum
ISH1	Issue Specific Hearing 1
MNZ	Morecambe Net Zero
MTI	Maintenance, testing and inspection
NRA	Navigational Risk Assessment
NUI	Normally unmanned installation
OSP	offshore substation platform
PFEER	Prevention of Fire and Explosion, and Emergency Response) Regulations
PINS	Planning Inspectorate
REWS	Radar Early Warning Systems
RR	Relevant Representation
SAP	Stabilised Approach Point
SoCG	Statement of Common Ground
UK	United Kingdom
VFR	Visual Flight Rules
VMC	Visual meteorological conditions
WTG	wind turbine generators

Glossary of Unit Terms

km	kilometre
km ²	square kilometre
m	metre
nm	nautical mile

Glossary of Terminology

Agreement for Lease (AfL)	Agreements under which seabed rights are awarded following the completion of The Crown Estate tender process.
Applicant	Morecambe Offshore Windfarm Ltd
Application	This refers to the Applicant's application for a Development Consent Order (DCO). An application consists of a series of documents and plans which are published on the Planning Inspectorate's (PINS) website.
Generation Assets (the Project)	Generation assets associated with the Morecambe Offshore Windfarm. This is infrastructure in connection with electricity production, namely the fixed foundation wind turbine generators (WTGs), inter-array cables, offshore substation platform(s) (OSP(s)) and possible platform link cables to connect OSP(s).
The Planning Inspectorate	The agency responsible for operating the planning process for Nationally Significant Infrastructure Projects.
Windfarm site	The area within which the WTGs, inter-array cables, OSP(s) and platform link cables would be present.



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1 Introduction and Contents

1. This section provides signposts to the Applicant’s comments on submissions provided at Deadline 1 by Spirit Energy, **Table 1.1** directs to where comments on specific submissions are addressed.

Table 1.1 Applicant’s comments on Spirit Energy written representation

Examination Library Reference	Submission	Where addressed
[DR 3.1]	Updated protective provisions and draft Development Consent Order (DCO) [note, Applicant submission]	Section 2 of this document
REP1-113	Cover Letter	Section 3 of this document
REP1-114	Response to the Applicant’s comments on Relevant Representation	Section 4 of this document
REP1-115	Summary of Written Representation	The Applicants notes the summary provided by Spirit Energy.
REP1-116	Written Representation	The Applicant’s Comments on Written Representations (Document Reference 9.33)
REP1-116 Appendix A	Written Representation: Appendix A Updated AviateQ Report	The Applicant has provided detailed comments on the Updated AviateQ Report in Appendix A: The Applicant’s Comments on Spirit Energy and Harbour Energy Aviation Access Study Report (Document Reference 9.35.1).

2. The comments are structured to address the key issues raised by Spirit Energy in their relevant representation (RR-077) and written representation (REP1-116) across the following topics:

- Section 1 Introduction and Contents (this section)
- Section 2 Updated Protective Provisions
- Section 3 Spirit Energy’s Cover Letter (REP1-113)
- Section 4 Applicant’s comments on Spirit Energy’s Responses to the Applicants comments on Spirit Energy’s Response to Relevant Representation (REP1-114)
- Section 5 Impacts to Helicopter Aviation Operations

- Section 6 Potential CAA Regulatory Change
 - Section 7 Aviation Safety
 - Section 8 Aviation Operational / Efficiency Impacts
 - Section 9 Shipping and Navigation Safety
 - Section 10 Morecambe Net Zero (MNZ)
 - Section 11 Decommissioning
 - Section 12 National Policy Statements in relation to the Affected Assets
 - Appendix A: The Applicant's Comments on Spirit Energy and Harbour Energy Aviation Access Study Report (Document Reference 9.35.1)
 - Appendix B: Helicopter Access Instrument meteorological conditions (IMC) Corridor (Document Reference 9.35.2)
 - Appendix C: Helicopter Supporting Information Technical Note (Document Reference 9.35.3).
3. This response does not address Spirit Energy's comments in relation to:
- the proposed Morecambe Net Zero (MNZ) project, because as a future project proposal at an early stage the Applicant considers that further discussion or information is needed;
 - Radar Early Warning Systems (REWS), which are still being analysed, but given the distinct character of radar impacts (and the similarities with other potential radar impacts in other locations) it is considered that this matter can be addressed distinctly. The Applicant intends to submit an updated REWS assessment at Deadline 3 addressing the comments raised by Spirit in both their relevant representation and written representation.
4. This response also does not provide detailed responses to the points made on decommissioning, but the Applicant considers these concerns have been adequately addressed by the position on aviation more generally set out in this response and secured in the updated protective provisions (see Section 2 below).
5. It may also be that the Applicant provides further detail once Spirit has commented on, or provided drafting for, protective provisions (and if relevant a side agreement) (see Section 2 below). The Applicant is reviewing the detailed material provided on a continuous basis, so the Applicant may have additional points, which may also include additional analysis using Vantage Personnel on Board flight data provided by Spirit Energy on 6 December 2024. However, the hope and expectation is that the updated protective provisions and further planned engagement with Spirit will allow for matters to be resolved and so the focus of future submissions would be on an updated statement of common ground, limiting the need for further detailed technical exchanges.

6. This response concludes with a consideration of the position of the Project under the National Policy Statements (NPS) in relation to these matters (noting this does not address NPS policy in relation to the MNZ or radar at this stage) (See section 12 below).

2 Updated Protective Provisions

7. The Applicant welcomes Spirit Energy's commitment to engage on protective provisions. Following receipt of the Relevant Representation (RR-077) from Spirit Energy and the Preliminary Meeting and Issues Specific hearing, the Applicant met with Spirit Energy on 31 October 2024. This meeting covered Spirit Energy's concerns in relation to aviation, and the Applicant introduced a proposed new mitigation, a 2 nautical mile (nm) wide take-off access corridor in the prevailing wind direction from Spirit Energy's CPP1 platform (the Aviation Corridor). This is discussed below and described in Appendix B: Helicopter Access IMC Corridor (Document Reference 9.35.2). The Aviation Corridor would allow for the majority of aviation access in IMC conditions to be retained (see section 5 below), and addresses the suggestion by Spirit Energy of extending the current proposed 360 degree aviation buffer from 1.5nm to 3.9nm (which would of course sterilise a significant area of the wind farm site). The document at Appendix B was provided to Spirit Energy on 4 December, and the Applicant appreciates that Spirit Energy was not in a position to reflect this proposed mitigation in its Written Representation or other responses at Deadline 1.
8. The Aviation Corridor sterilises at least two proposed turbine locations, but the Applicant has further tailored possible layouts and considers it would still be possible to deliver the c. 480MW renewable energy potential of the site with this additional physical mitigation in place. The Aviation Corridor should be considered on a provisional basis, subject to further engagement with Spirit Energy. Further meetings with Spirit Energy have been requested by the Applicant, and the Applicant understands Spirit Energy is considering availability for suitable dates.
9. The Applicant's solicitors are in contact with Spirit Energy's solicitors, and have offered an undertaking to pay Spirit Energy's legal fees. Spirit Energy's solicitors have offered to provide draft protective provisions covering matters with the exclusion of aviation (where further discussions were necessary), and the Applicant was under the impression these would be received from Spirit Energy's solicitors before Deadline 2. These have not been received so far, and so mindful of the tight Examination timelines, the Applicant has included updated protective provisions in favour Spirit Energy (Schedule 3 Part 2 of the draft DCO (Document Reference 3.1)).

10. The updated protective provisions secure the new proposed Aviation Corridor and also the mitigation measures requested by Spirit in relation shipping and navigation (all discussed in detail below). The updated protective provisions do not secure the mitigation measures proposed by Spirit Energy to facilitate the proposed MNZ project further to a Carbon Dioxide Appraisal and Storage Licence (CDASL) CS010 in September 2023. This project appears to be at an early stage and the Applicant has not found any material in the public domain on the detail of the proposals (for example, it does not appear the project has reached the scoping stage). As such the Applicant is not in a position at this time to include any further measures in protective provisions. This will be the subject of further discussion with Spirit at the next meeting referred to above.
11. In its Written Representation (REP1-116), Spirit Energy reference the meeting on 31 October and the further information to be provided by the Applicant (para 8.2). Spirit Energy also reference that in relation to aviation, physical mitigation is needed by increasing the distance between the turbines and the Affected Assets (para 2.15). As noted above, the Applicant has provided Spirit Energy with details of the Aviation Corridor (see paragraphs 31-32 below), which is physical mitigation, and introduces increased physical mitigation in a targeted and proportionate way taking into account real world conditions such as the prevailing wind. Spirit had in its Written Representation (prior to taking account of the Aviation Corridor mitigation) suggested there was at that time a limitation on the parties' ability to meaningfully negotiate aviation related protective provisions.
12. Therefore (as set out in Section 4 below) this response to Spirit's Written Representation focusses in particular on key points raised by Spirit in relation to aviation, namely: Impact on Helicopter Operations (Section 5), Potential Civil Aviation Authority (CAA) Regulatory Changes (Section 6), and Aviation Safety (Section 7). This response provides the Applicant's response to these aviation issues and explains why these concerns, properly assessed and contextualised, are appropriately addressed by the Applicant's proposed updated protective provisions.
13. In terms of the full content the updated protective provisions within the draft DCO in favour of both Spirit Energy and Harbour Energy (Schedule 3 Parts 2 and 3 of the draft DCO (Document Reference 3.1)), in summary they provide for: one nautical mile (1 nm) marine buffer around the Calder platform, a one point five nautical mile (1.5nm) marine buffer around the CPC-1 platform, one point five nautical mile (1.5 nm) aviation buffers of clear air space around each of the Calder platform and the CPC-1 platform, a one kilometre (1 km) wide clear marine area along the pipelines and cables, a two nautical mile (2 nm) wide aviation corridor angled at 220 degrees from the CPC-1 platform, a one nautical mile (1 nm) wide marine corridor between the Calder platform and

CPC-1 platform, and that undertaker must pay to the owner of either platform the additional costs resulting from residual impaired aviation access.

14. The Applicant remains committed to the principle of co-existence, and of working with Spirit Energy to refine what the Applicant considers to be an appropriate and pragmatic response to Spirit Energy's concerns which facilitates co-existence and maintains the absolute highest standards of safety for all parties.

3 Spirit Energy's Cover Letter (REP1-113)

15. The Applicants notes the cover letter provided by Spirit Energy at Deadline 1 (REP1-113), which includes a written summary of oral submissions at Issue Specific Hearing 1 (ISH1) on 24 October 2024. The Applicants comments on points raised in the cover letter are provided below.

3.1 Statement of Common Ground (SoCG)

16. The Applicant submitted the initial draft SoCG with Spirit Energy (REP1-075) with their updates as tracked changes as requested by Spirit Energy.
17. The Applicant will continue to engage with Spirit Energy on the drafting of updates to the SoCG, which will be submitted in accordance with the updated Examination Timetable as set out in the Rule 8 letter (PD-010).

3.2 Unobstructed Airspace

18. As outlined in Section 5 below the Applicant has proposed additional mitigation, in the form of the Aviation Corridor (see paragraphs 31-32 below), to be secured as protective provisions in favour of Spirit Energy (see also Appendix B: Helicopter Access IMC Corridor (Document Reference 9.35.2)). The Aviation Corridor would allow for the majority of aviation access in IMC conditions to be retained. The combination of the Aviation Corridor and the existing unobstructed airspace would also allow the helicopter operator to demonstrate an alternative means of compliance with the CAA regulatory change, should it come into force (see Section 6 below).
19. The Applicant considers that the most appropriate mechanism to secure this unobstructed airspace would be as protective provision in favour of Spirit Energy, supplemented as necessary by a co-existence and / or side agreement.

3.3 Protective Provisions

20. The Applicant has submitted updated protective provisions in favour of Spirit Energy at Deadline 2 (Document Reference 3.1). See section 2 above, and discussion below.

4 Applicant's comments on Spirit Energy's Responses to the Applicants comments on Spirit Energy's Response to Relevant Representation (REP1-114)

21. The Applicant notes the Spirit Energy response to the Applicant's comments on its Relevant Representation. The Applicant considers that the responses provided cover the same topics and issues as raised in the Written Representation (REP1-116).
22. As explained in Section 1, the key point from Spirit Energy's Written Representation (and the underlying points from the Relevant Representation) are addressed in the sections which follow.
23. Therefore, the Applicant highlights the following responses provided in this document and elsewhere in their Deadline 2 submissions:
 - Applicants Comments on Impacts to Helicopter Aviation Operations: Section 5 of this document
 - Applicants Comments on Potential CAA Regulatory Change: Section 6 of this document
 - Applicants Comments on Aviation Safety: Section 7 of this document
 - Applicants Comments on Aviation Operational / Efficiency Impacts: Section 8 of this document
 - Applicants Comments on the National Policy Statement for renewable energy infrastructure (EN-3): Section 12 of this document
24. A more detailed response to the comments from Spirit Energy will be provided by the Applicant at Deadline 3. This will include responses in relation to:
 - Spirit Energy's Radar Early Warning System
 - Additional analysis using updated Vantage Personnel on Board flight data provided by Spirit Energy on 4 December 2024
 - MNZ and carbon capture utilisation and storage
 - Shipping and navigation impacts

5 Impacts to Helicopter Aviation Operations

25. The Applicant undertook an assessment of the distances required for approach and take-off in visual meteorological conditions (VMC) and instrument meteorological conditions (IMC). This is described in detail in Volume 5 Appendix 17.1 Helicopter Access Study (APP-081) which concluded that approaches in day VMC require a distance of 1.26 nm, based on a stabilisation point at 0.75nm from the landing site. The required distance for take-offs in day VMC ranges between 1.14nm to 1.38nm for the AW169 helicopter depending on take-off mass and wind speed, based on the one engine inoperative scenario.
26. A buffer of 1.5 nm is therefore considered sufficient for day VMC flights to and from CPC-1. An obstruction free distance of 1.26nm around the Waveney Platform was identified in the Protected Provisions for the Dudgeon and Sheringham Shoals Extension Project DCO¹. Shorter distances are applied on daily flights to helidecks within and adjacent to wind farms, some as low as 0.65nm (1,200m).
27. The Applicant notes the Updated AviateQ Report submitted by Spirit Energy as Appendix A to their Written Representation (REP1-116) at Deadline 1. The Updated AviateQ Report sets out that Spirit Energy consider that the minimum safe distance for day VMC flights to and from CPC-1 is 1.9nm. The Applicant has provided a full response in Appendix A: The Applicant's Comments on Spirit Energy and Harbour Energy Aviation Access Study Report (Document Reference 9.35.1).
28. In relation to approaches in day VMC there is an inconsistency in the AviateQ Report which is material to the understanding of operational impacts and the safe distances required for approaches. In Section 5 bullet 5 AviateQ state that the UK North Sea Operators working group agreed in February 2023 that the Stabilised Approach Point (SAP) should be 0.5nm from the destination helideck. The Applicant agrees with this statement, although as noted in para 26 above has used a more conservative figure of 0.75nm for the SAP in the Helicopter Access Study (APP-081). In Section 4.3 bullet d) of the AviateQ Report (REP1-116), AviateQ have stated that they have added an extra 1nm 'Final Approach Sector' prior to the SAP. This additional distance is excessive and not supported by industry guidance. The effect of this is that the AviateQ Report overstates the appropriate safe buffer zones, and explains the difference in proposed distances needed for safe day VMC approaches between Spirit and the Applicant.

¹ [The Sheringham Shoal and Dudgeon Extensions Offshore Wind Farm Order 2024](#)

29. The Helicopter Access Study (APP-081) assessed the impact to CPC-1 on the assumption that a 1.5nm buffer was in place and that flights would be restricted to day VMC only. The assessment showed that an average access of 94.2% of daylight conditions would be available for VMC, i.e. IMC accounted for 5.8% of daylight conditions. No night access would be possible. Although it should be noted that at present flight at night are already constrained by the opening hours of Blackpool Airport (7am to 9pm), and that Spirit Energy do not have an out of hours contract to allow flights outside of these opening hours.
30. In order to mitigate the impacts associated with IMC and night flights, the Applicant has proposed a take-off access corridor in the prevailing wind direction, which is described in Appendix B: Helicopter Access IMC Corridor (Document Reference 9.35.2), the Aviation Corridor.
31. With the Aviation Corridor in place, assuming all take-offs were directly into wind, this would permit flying in 62.9% of the day IMC cases, reducing the impact from 5.8% to 2.2%. The restrictions on night IMC availability would be 5.5%. Therefore, with the additional mitigation of the Aviation Corridor in place, the percentage of flights that would be permitted in all meteorological conditions would be 97.8% during the day and 94.5% during the night (when Blackpool Airport is open).
32. As set out in Section 8, the Applicant does not consider that it is credible that a potential loss of 2.2% of flights during the day and 5.5% during the night (when Blackpool Airport is open) would result in a safety impact, with any consequential loss of production, given the already existing variation in the number and timing of flights to the individual normally unmanned installations (NUIs) across the South Morecambe Hub.
33. Therefore, any residual restrictions to flights as a result of the Morecambe Offshore Wind Farm (the Project) should be seen as a logistical impact. The Applicant acknowledges this and has provided in its updated protective provisions in favour of both Spirit Energy and Harbour Energy in the draft DCO (Document Reference 3.1) that the undertaker must pay to the owner the additional costs resulting from such residual impaired access. An equivalent approach is taken in other made Orders where offshore wind farms are close to oil and gas platforms (for example the Hornsea Four Offshore Wind Farm Order 2023, Schedule 9, Part 11²).
34. It is noted that this access assumes that the proposed CAA regulatory change is not in place and/or that a dispensation from this rule can be obtained via an

² [The Hornsea Four Offshore Wind Farm Order 2023](#)

Alternative Means of Compliance (AltMoC). This is discussed further below in Section 6.

5.1 Affected Assets

35. This section provides a summary of the impacts to helicopter aviation operations for each of the South Morecambe CPC-1, AP-1, DP-1 and Calder Platforms (Affected Assets) undertaken by analysing the Vantage data provided by Spirit Energy covering the period 2018 – 2022. More recent data, January 2023 to October 2024, has been provided but not yet analysed. It is noted that the Calder platform is included in this response because Harbour defer to Spirit Energy (as the operator) in relation to operational impacts on the Calder platform.
36. This analysis has taken account of the additional mitigation as outlined in Appendix B: Helicopter Access IMC Corridor (Document Reference 9.35.2), and it has been assumed that dispensation from the proposed CAA regulatory change can be secured via an AltMoC as set out in Section 6 below.

5.1.1 South Morecambe CPC-1, AP-1 and DP-1 Helidecks

37. South Morecambe CPC-1, AP-1, and DP-1 Platforms are manned installations. The current access is both day and night in VMC and IMC. The current access is an average of 99% (94.2% VMC and 4.8% usable IMC) of daylight conditions and 98.4% (88.4% VMC and 10.0% usable IMC) of night conditions.
38. Under the proposed CAA regulatory change without any further mitigation (beyond the 1.5nm day VMC buffer), and based on the analysis of the Vantage data, 85.8% of the flights in 2018 would have been unaffected, i.e. those conducted under day VMC. From 2019 to 2022 at least 93% of the flights would have been unaffected. The difference between 2018 and the following years can largely be accounted for by the larger number of night flights in 2018, typically over three times those in subsequent years. The data confirms that most flights occur under day VMC.
39. Night access was assessed for CPC-1 on a monthly basis, as it is part of a manned cluster. It was identified that the loss of night access would have been worst in January, with an average of 25.9% (202 of 779) of flights being impacted. The number of night flights to CPC-1 varied over the years assessed, with the number and percentage of night flights falling in more recent years. For example 7 out of 83 (8.4%) flights in January 2021 were conducted at night and 4 out of 148 (2.7%) were night flights in January 2022. A breakdown of day and night flights on an annual and monthly basis is shown in Appendix C: Helicopter Supporting Information Technical Note (Document Reference 9.35.3).

40. The Applicant has proposed an IMC take-off corridor to increase helicopter access to the two helidecks on the South Morecambe Platform (CPC-1 and DP-1); this is detailed in Appendix B: Helicopter Access IMC Corridor (Document Reference 9.35.2), the Aviation Corridor. Utilising an AltMoC, and with the Aviation Corridor in place, would permit flying in 62.9% of the day IMC cases, reducing the day impact from 5.8% to 2.2%. The restrictions on night IMC availability would be 5.5%. Therefore, with the additional mitigation of a helicopter take-off corridor in place the percentage of flights that would be permitted in all meteorological conditions would be 97.8% during the day and 94.5% during the night (when Blackpool Airport is open).
41. As the South Morecambe Platform is the central hub for shuttling operations to other platforms, increasing access to the platform's helidecks (AP-1 and DP-1) through the Aviation Corridor will also improve access to the other supported helidecks.

5.1.2 South Morecambe DP-6

42. Due to the distance of 2.2 nm between DP-6 and the Morecambe Windfarm, the platform would be restricted to day VMC only under the new CAA Regulations, if brought in.
43. The Vantage data shows that a limited number of night flights occur to the DP-6 NUI, with a maximum of four-night flights (1.3%) occurring in 2022. The percentage of unaffected flights, i.e. day VMC, is between 91.3% and 97.0%.
44. DP-6 has a clear approach and departure into the prevailing wind (i.e. unobstructed by the proposed Project). Therefore, the use of an AltMoC would permit an instrument approach and departure under all but a strong southerly or northerly wind, which rarely coincide with IMC, increasing the access above the 91.3% to 97% that would be unaffected with just the 1.5nm day VMC buffer as mitigation.

5.1.3 Calder Platform

45. The Calder Platform will be located 1.5 nm from the Morecambe Offshore Windfarm Unconstrained Areas, therefore its future helicopter access will be restricted to day only VMC under proposed new CAA Regulations. That will provide an average access of 94.2% of daylight conditions. Analysis of the Vantage data showed that flights to the Calder Platform occurred predominantly under day VMC. There were 26 (12.3%) night flights conducted in 2018 and 16 (10.3%) conducted in 2022, with minimal night flying during the intervening years. The low number of night flights from 2019 to 2021 cannot be explained by a reduction caused by the Covid Pandemic, as the total number of flights increased during this period.

46. The proposed additional mitigation for South Morecambe AP-1 and DP-1 in the form of the Aviation Corridor would also provide additional mitigation for the Calder Platform allowing for additional landings under IMC and at night, further increasing the level of helicopter access.

5.1.4 Other Platforms

47. The other platforms in the area are more than 3 nm from Morecambe Offshore Windfarm and so there is no additional restriction on their helicopter access beyond those associated with flights that start/end from South Morecambe AP-1 / DP-1 (see 5.1.1 above). As stated in paragraph 42 above, as the South Morecambe Platform is the central hub for shuttling operations to other platforms, increasing access to the platform's helidecks (AP-1 and DP-1) through the Aviation Corridor will also improve access to the other supported helidecks.

6 Potential CAA Regulatory Changes

48. In its Relevant Representation (RR-077) and Written Representation (REP1-116) Spirit Energy set out that the United Kingdom (UK) North Sea Operators working group and the CAA have discussed incorporating a number of tighter flying restrictions to and from oil and gas platforms that are located within 3nm of offshore wind turbines. As stated in Section 3 of the Updated AviateQ Report these restrictions, which would include limiting flights to daylight flying only, could be implemented through a change to CAA Policy and Guidelines on Wind Turbines (CAP 764). Although it should be noted that an updated version of CAP 764 which was issued for consultation in March 2024³ did not incorporate those changes.
49. Through their own discussions with the CAA the Applicant has received confirmation that any changes to the meteorological or operational limits will be at the level of Guidance Material or Acceptable Means of Compliance (AMC) (see Section 6.1.1 below). To date there has been no consultation with the wider offshore industry, including the renewables sector, on these changes and as noted above the most recent update to CAP 764 did not incorporate those changes. Therefore, it is not clear to the Applicant that the regulatory change could be secured in 2025 as stated by Spirit Energy.
50. Regardless of the above and the status of the potential CAA regulatory change the Applicants Helicopter Access Study (APP-081) takes account of the possible change to the regulations. In particular, account is taken of increasing the day VMC from a visibility of 4,000m to 5,000m and the minimum cloud

³ [CAP 764 Wind Turbine Policy Consultation - Civil Aviation Authority - Citizen Space](#)

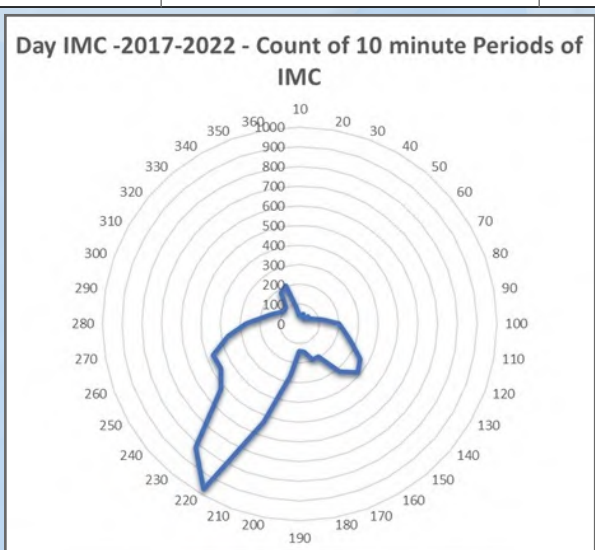
base from 600ft to 700ft. In addition, it has taken account of helicopter take-off and landings within 3nm of a wind turbine being restricted to day VMC only, unless an AltMoC is agreed with the CAA.

6.1 Alternative Means of Compliance

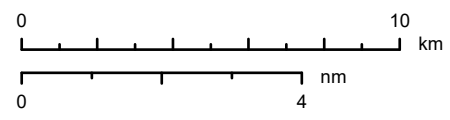
51. As confirmed by the CAA if the rule change did occur, then it will be at the level of AMC. AMC adopted by the CAA are means by which the requirements in the UK Regulation European Union (EU) 2018/1139 (UK Basic Regulation) and its Implementing Rules can be met. For example, AMC1 SPA.HOFO.125 covers airborne radar approaches to offshore locations. Since AMC can be met by other means, regulated persons and organisations may apply for permission to use alternative procedures to comply with the law by the use of AltMoC.
52. For the CAA to accept an AltMoC the helicopter operator will need to demonstrate that the alternative approach nonetheless maintains compliance with the Basic Regulations. Applicants may also apply for AltMoCs as a means to establish compliance with the UK Basic Regulation and its Implementing Rules for which no associated AMC has been adopted. Where regulated persons or organisations wish to utilise their own alternative means of compliance, they must first obtain the approval of the CAA.
53. Even if the CAA regulatory change covering helicopter flights within 3nm of wind turbines did progress, then helicopter operators would have the option to apply for an AltMoC to continue some operations under day IMC and night providing an acceptable level of safety was maintained. The AltMoC process is described in Civil Aviation Publication (CAP) 1721. Helicopter operators have already discussed the use of an AltMoC for wind turbines placed within 3nm oil and gas platforms to provide electric power to those platforms.
54. Currently, and even following construction and operation of the Project, there is existing unobstructed airspace in an arc from 263^o clockwise to 90^o around the CPC-1 platform as shown on Figure 6.1. This would allow landings from, and take-offs into this unobstructed airspace in both night VMC and IMC to/from the arc from 263^o clockwise to 90^o. As outlined in Section 5 above the Applicant has also proposed additional mitigation, in the form of the Aviation Corridor centred on 220^o in line with the predominant wind direction. This would allow unobstructed landings from and take-offs into this unobstructed airspace to the southwest of the CPC-1 platform.
55. Taken together the effect of the existing unobstructed airspace and the Aviation Corridor would be to provide an approach and take-off distance free of wind turbines for at least 3nm longitudinally, measured from CPC-1 in an arc covering at least two thirds of the airspace around CPC-1. This arc also provides a lateral clearance of at least 1nm from wind turbines. Helicopter

operators may obtain an AltMoC which will provide an equivalent level of safety to current operations, whilst expanding the IMC and night VMC access

56. Applying an AltMoC does not lead to a reduction in safety. Some regulatory regimes, such as the Health and Safety Executive (HSE) adopt a goal setting regime. For example, under the Prevention of Fire and Explosion, and Emergency Response Regulations it is a requirement to show a “good prospect of rescue” following a helicopter ditching but with no defined targets. Conversely, aviation regulations adopt a prescriptive approach, which frequently lag advances in technology or operational procedures. However, to prevent innovation being stifled, variations from the regulations are permitted where an equivalent or better level of safety can be demonstrated. An AltMoC is an example of this approach to permit innovation whilst maintaining an acceptable level of safety. An example of how flexibility is utilised in the application of regulations is the AW169 helicopter used by the Interested Parties in the Morecambe Bay gas fields. The AW169’s Type Certificate Data Sheet shows that six Special Conditions were applied during certification and 11 Equivalent Safety Findings were applied. A Special Condition is applied when the certifying authority finds that the airworthiness regulations for an aircraft or aircraft engine do not contain adequate or appropriate safety standards, because of a novel or unusual design feature. An Equivalent Safety Finding is another way to meet the certification requirements, usually through an Alternative Means of Compliance.
57. In summary, applying an AltMoC for approaches in IMC to CPC-1 post any CAA regulatory change, if it were to occur, is consistent with aviation practice, aimed at maintaining safety levels whilst providing flexibility.



- LEGEND**
- Morecambe Offshore Windfarm site
 - Unconstrained area
 - Constrained area
 - Platform 1.5nm buffer
 - 220° IMC take-off corridor from CPP1 (4nm x 2nm)
 - Unobstructed airspace from CPP1 (263° to 90° clockwise, 9nm radius)
 - Wells
 - Platform
 - Pipelines & umbilicals
 - Power cable
 - Telecoms cable



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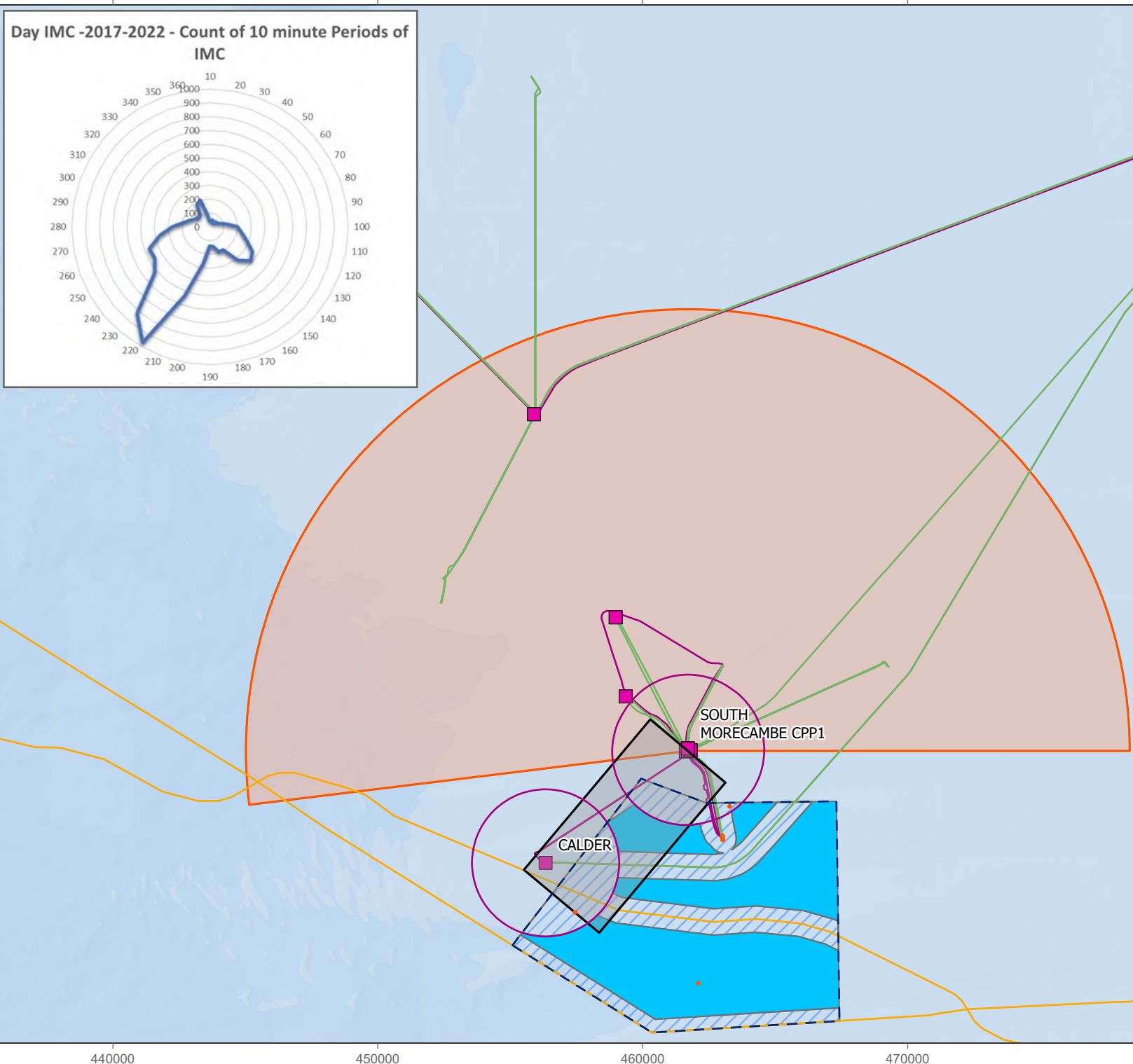
PROJECT: MORECAMBE OFFSHORE WINDFARM:
 GENERATION ASSETS

TITLE: South Morecambe Platforms
 Unobstructed Airspace

REV	DATE	COMMENTS	DRAWN	CHECKED
001	10/12/2024		SK	OG

ARGGIS REF: FLO_MOR_GIS_PRJ001_MORConstraints_Rev001
 DRAWING: FLO-MOR-GIS-MAP011-Unobstructed Airspace-Rev001

SCALE: 1:200,000 PAGE SIZE: A4 COORDINATE SYSTEM: WGS 1984 UTM Zone 30N



7 Aviation Safety

58. Spirit Energy have identified a number of safety concerns; these are set out in paragraphs 5.17 to 5.42 of the Spirit Energy's Relevant Representation (RR-077), and supplemented in paragraph 2.38 – 2.53 of Spirit Energy's Written Representation (REP1-116).
59. These risks can be characterised under four overarching headings, the first three of which primarily as an indirect result of the impacts to helicopter aviation operation, which will be reduced by the additional mitigation proposed by the Applicant (in particular the Aviation Corridor).
- Transportation Risk
 - Emergency Evacuation
 - Non-emergency Down-manning
 - Enforcement Risks
60. Initial comments on the safety concerns are provided below, although it should be noted that some of the concerns raised by Spirit in their written representations are very similar to those presented in the relevant representation without any additional evidence or information to support their position.

7.1 Transportation Risk

61. Spirit Energy set out in their Relevant Representation (RR-077) (para 5.20 – 5.24) that delays and cancellations of flights will adversely affect access the NUIs which will in turn impact their ability to complete scheduled maintenance, inspection and testing (MIT) activities. This is expanded upon this in their Written Representation (REP1-116) (para 2.38 – 2.42) in relation to an increase in the level of risks if more flights are required to undertake the scheduled MIT.
62. The Applicant notes that MIT activities are required to ensure that critical safety systems continue to function, or able to function when required to do so. However, the timescale for such activities is that any individual MIT activity is scheduled from anywhere between monthly and multiple years. The number of MIT routines that are monthly is very restricted potentially only relating to the testing of fire pumps (if provided: often not required on a NUI) and the integrity of the temporary refuge (again, lesser requirements on a NUI).
63. The helicopter operations at Morecambe already have a high degree of variability: for example, monthly landings on CPC-1 in 2021/22 vary between 83 and 235. This variability is even higher when considering that many flights are just associated with crew change for CPC-1 (drops to 59 and 205 without this). Over the same period, the number of monthly visits to (for example)

DP6 varied between 0 and 28. This shows that the MIT effort on the NUIs is variable and there is no direct impact on safety for these activities for a delayed, or rescheduled flight as there is already this variability in flights. The risk exposure from carrying out a MIT activity a few days, or few weeks later is negligible and not quantifiable.

64. Similarly, the amount of time spent on a NUI varies considerably. Over the same 2-year period for DP6, from Vantage Data it is estimated that time spent on the platform for each visit varies between just over an hour to just under 12 hours. As a proportion of the work done, the flying risk is >10 times higher for the short visit, but this is a risk that is already deemed acceptable by the Operator, HSE and other relevant bodies.
65. If the amount of time on the platform was restricted due to flying hours, additional visits may be needed, and this would lead to increased risk. However, this is likely to already be within the working pattern of the installations as outlined above and would be a small change. In addition, the overall risk to personnel working offshore is dependent on several hazards: including fires and explosions, ship collisions, day to day occupational risk and helicopter risk. Helicopter risk will only be increased if additional maintenance visits are required. With effective maintenance planning it should be possible to minimise any additional flights. The Applicant therefore considers that any overall risk change to personnel working on the NUI will not be significant and within the variability already seen.
66. Spirit Energy also maintains that flight restrictions will shorten the productive working window on each platform, requiring a significant number of additional trips to complete scheduled MIT activities over the course of a year. If intervention trips are planned on days with suitable weather, there should be no reduction in the available flying hours and therefore no significant increase in the number of trips required. Even in the winter months, there should be sufficient daylight to complete the necessary maintenance work.
67. Analysis of Vantage data shows that visits in the winter are already more likely to be shorter. For example, 50% of visits to DP6 are likely to be <7 hours in December whereas this figure is closer to 10% in May-July. Similarly visits of 10 hours or more do not occur in January whereas up to 48% are in the summer months. Given that preventative maintenance is required on a timescale of many months, or even years, it can be more effectively scheduled during the spring, summer and autumn months when the days are longer.
68. The Applicant agrees with Sprit Energy that transportation risk is one of a number of risks and therefore that each flight taken by personnel carries with it a quantifiable risk. However as outlined above, the use of helicopters is already highly variable, and any change brought about by the Project will have a small impact on this. With effective maintenance planning, there should not

be a need for a significant increase in the number of flights, hence flight risks should not significantly increase.

69. Calculation of the transportation risk using industry generic data or guidance, such as Health and Safety Executive publication 'Reducing Risks, protecting People'⁴ (commonly referred to as R2P2) is straightforward and additional flights would not threaten to breach the acceptability criteria. Furthermore, the calculation is highly uncertain due to the thankful paucity of incident data.
70. In response to Spirit Energy's comments in their Written Representation (REP1-116) on the Individual Risk Per Annum (IRPA) (para 2.41) the Applicant highlights that IRPA is the probability of a person, in a given worker group, being killed due to work activities each year. Transportation is a contributor to IRPA and this is proportionately higher on older platforms that have a lower hydrocarbon risk. This lower hydrocarbon risk is due to lower well pressures and a higher water content in the hydrocarbon.
71. For the reasons outlined above there should be no need to significantly increase flights assuming that work is planned effectively. Effective planning means not visiting NUI platforms when poor weather or high sea states are forecast. The tolerability criteria would not be threatened by any such change, or even larger change in transportation risk.

7.2 Emergency Evacuation

72. The Applicant agrees with Spirit Energy that the Offshore Installations (Prevention of Fire and Explosion, and Emergency Response) Regulations 1995 (PFEER) Regulation 15 requires an effective means of evacuation to be provided. However, there is no requirement to provide this by helicopter.
73. In the event of a fire or explosion, it is unlikely that a helicopter evacuation would be feasible due to heat reducing helicopter performance and smoke obscuring visibility and impacting engine performance. The following installations were abandoned due to fire and explosion: Piper A, Ocean Odyssey, Bombay High, Deepwater Horizon. In each case helicopter evacuation was not feasible due to heat, flame and smoke.
74. The helicopters based at Blackpool are AW169 aircraft which can carry 8 passengers. As highlighted in Spirit Energy's Relevant Representation (RR-077) (para 5.40) under the current flight conditions (i.e. without the presence of the Project) it would take 2 days to remove all personnel from the South Morecambe complex. They are therefore too small to provide an effective means of evacuation for CPC in the event of an emergency regardless of the

⁴ [Risk management: Expert guidance - Reducing risks, protecting people - R2P2](#)

layout or design of CPC and any temporary refuge facilities that could be provided for example on AP-1.

7.3 Non-emergency Downmanning

75. In their Relevant Representation (RR-077) (para 5.31 – 5.43) and Written Representation (REP1-116) (para 2.48 – 2.53) Spirit Energy state that they are reliant on helicopter transportation for the ‘downmanning’ of their offshore installations. A number of downmanning scenarios were presented in their Relevant Representation (RR-077) (para 5.38 – 5.42).
76. The Applicant has previously addressed comments on downmanning within Comment ID RR-077-45 of the Applicant’s Response to Relevant Representations (Document Reference PD1-011); and provides the following additional comments on downmanning.
77. Downmanning only refers to CPC-1 as NUIs, for example the Calder platform or DP6, are only temporarily manned and only manned when it can be guaranteed that helicopters are available to take personnel off the installation.
78. Non-emergency downmanning is a rare event. The term non-emergency implies that a delay would not be a safety or welfare issue. Analysis has shown that only 6% of day and 11% of night flights (when Blackpool Airport is open) would be impacted by the proximity of the windfarm. Therefore, it is unlikely that the proximity of the windfarm will adversely impact any non-emergency downmanning.
79. Downmanning is already not available at all times, e.g. where flying is not possible due to fog, or when Blackpool Airport is closed (before 7am and after 9pm). In these situations, the Operator may restrict operations offshore to remove or reduce the hazard that was leading to the downman requirement. From the Vantage data, there is no evidence of a downmanning event in 2018-2023.

7.4 Enforcement Risk

80. Spirit Energy raises the possibility of regulatory bodies undertaking enforcement action should restrictions to helicopter aviation operations compromise their ability to maintain safe operations in compliance with their safety case in their relevant representation (para 5.35 – 5.37), the Applicant has provided a response within Comment ID RR-077-46 of the Applicant’s Response to Relevant Representations (Document Reference PD1-011).
81. Within the Written Representation (REP1-116) (para 2.42) Spirit Energy further state that a significant increase in transportation risk will present a significant regulatory challenge and burden on Spirit Energy to demonstrate that risks remain As Low As Reasonably Practicable (ALARP). The additional

risk exposure would also require submission of a material change to the Safety Case in accordance with the Offshore Installations (Offshore Safety Directive) (Safety Case etc) Regulations 2015, and that acceptance by the Competent Authority is not guaranteed.

82. ALARP arguments concern risks that are within the duty holder's control and which are manifested on the duty holder's installation, even if risks happen to be higher because of increased flights – and the applicant does not believe that there will be a significant increase in the number of flights – this should not affect the duty holder's ALARP assessment.
83. This is because the duty holder has already taken all reasonably practicable measures to reduce the risk to their personnel. Furthermore, any change in the flight pattern that may occur is not significant compared to the variability that already exists. The change in risk is unlikely to be viewed as material by the regulator and the basis to the way the risk is managed has not changed and the potential increase in flights is small.

8 Aviation Operational / Efficiency Impacts

84. The Applicant acknowledges that there will be some residual restrictions on IMC availability, even with all the mitigation in the updated protective provisions and this could have implications on operational efficiency of Spirit Energy's operations due to flight delays and cancellations. Spirit Energy also set out their view that flight delays and cancellations could impact on decommissioning extending the schedule, the additional cost of which could be "well in excess of £10 million" (paragraph 5.7 of Spirit Energy's Written Representation (REP1-116) - a figure which Spirit Energy is requested to explain what it comprises). This Written Representation does not take into account additional corridor mitigation developed by the Applicant following receipt of Relevant Representations, which will allow for the majority of access under IMC conditions to continue (as well as unrestricted access during VMC, which was protected by the 1.5nm buffer zones originally proposed). But there will still be some residual impact to IMC access.
85. This is considered to be a commercial matter related to the operational efficiency of the Affected Assets, and not a safety matter, for the reasons set out in sections 5 – 7 above.
86. To mitigate this residual commercial impact, the Applicant has provided in the protective provisions (Schedule 3 Part 3 of the draft DCO (Document Reference 3.1) that the undertaker must pay to the owner the additional costs resulting from such impaired access. It is considered that a side agreement would be the most appropriate place to agree any commercial detail, but as a placeholder the Applicant has included reference to a liability cap (an important commercial point for projects seeking project finance, standard

practice for offshore wind farms). It is expected that such commercial detail would not be included in final protective provisions on the assumption that the parties agree a side agreement (or co-existence agreement) to accompany protective provisions.

9 Shipping and Navigation Safety

87. Spirit Energy set out a number of shipping and navigational concerns. These include an increase in the number of marine vessels in the vicinity of the Affected Assets, that a lack of sea room will place restrictions on the use of larger vessels, there is a far higher risk of emergency production shutdowns due to vessels on collision course with platforms or breakdowns caused as a result of emergency shutdowns and waiting for repairs, there will be a new requirement for designated access paths and exclusion areas in addition to the 500m exclusion zone around each platform, a 1.5nm marine buffer zone must therefore be secured independently of any corresponding aviation related buffer zone and that wind turbines near Spirit Energy's REWS can interfere with its performance (with consequential risk to safe operations). These are set out in Part 6 of its Relevant Representation (RR-077) and supplemented in Part 3 of its Written Representation (REP1-116). Taking each point in turn.
88. The Project would increase the number of marine vessels in the vicinity of the Affected Assets and licensed blocks (paragraph 6.3 of the Spirit Energy Relevant Representation (RR-077)). The Applicant acknowledges that the presence of the windfarm site will change shipping routes, which can result in a change in encounters resulting in a change in collision risk. As a result, this risk was assessed using collision frequency modelling based on a 15% estimated increase in traffic, as detailed in Section 8.5 of the Navigational Risk Assessment (NRA) (APP-073). Through the NRA process, the overall risk has been assessed as acceptable. The assessment of collision risk undertaken within the NRA has been agreed with the MCA to be in compliance with MGN 654.
89. A lack of sea room will place restrictions on the use of larger vessels such as drilling rigs, crane barges and accommodation vessels (paragraphs 6.4-6.6 of the Spirit Energy Relevant Representation (RR-077)). The Applicant refers to the updated Protective Provisions in favour Spirit Energy (Schedule 3 Part 2 of the draft DCO (Document Reference 3.1)). The Applicant has included, as requested by Spirit Energy (paragraph 6.17 of the Spirit Energy Relevant Representation (RR-077)), a one point five nautical mile (1.5 nm) marine buffer around the CPC-1 platform which will be clear of WTGs, offshore substations and temporary surface infrastructure. Spirit Energy requested a 1nm access corridor to the East and West of both the CPC-1 platform and the Calder platform. This will be secured by the marine buffer. In addition, the

Applicant has also included, as requested by Spirit Energy at paragraph 6.17 of the Spirit Energy Relevant Representation (RR-077), a one nautical mile (1 nm) wide marine corridor, again clear of WTGs, offshore substations and temporary surface infrastructure, between the CPC-1 platform and the Calder platform.

90. There is a far higher risk of emergency production shutdowns due to vessels on collision course with platforms or breakdowns caused as a result of emergency shutdowns and waiting for repairs (paragraph 6.8 of the Spirit Energy Relevant Representation (RR-077)). The Applicant refers to paragraph 90 above, which sets out that mitigation requested by Spirit in relation to these matters has been secured in the updated protective provisions.
91. There will be a new requirement for designated access paths and exclusion areas in addition to the 500m exclusion zone around each platform (paragraph 6.9 of the Spirit Relevant Representation (RR-077)). The Applicant refers to paragraph 90 above, which sets out that mitigation requested by Spirit Energy in relation to these matters has been secured in the updated protective provisions.
92. The protective provisions in Part 3 of Schedule 3 of the draft DCO only secure a 1.5nm buffer between the “active” AP-1, DP-1 and Calder “heli-decks” (which may be removed or change location). A 1.5nm marine buffer zone must therefore be secured independently of any corresponding aviation related buffer zone (paragraph 6.17 of the Spirit Relevant Representation (RR077)). The Applicant refers to paragraph 90 above, which sets out that mitigation requested by Spirit in relation to these matters has been secured in the updated protective provisions.
93. That wind turbines near Spirit Energy’s REWS can interfere with its performance (with consequential risk to safe operations) (paragraphs 6.18-21 of the Spirit Energy Relevant Representation (RR-077) and paragraphs 3.37-50 of the Spirit Energy Written Representation (REP116)). As noted in Section 1, analysis of Spirit Energy’s comments in relation to REWS is ongoing, and detailed responses are not included in this response but that the Applicant intends to submit an updated REWS assessment at Deadline 3 addressing the comments made by Spirit Energy.

10 MNZ

94. Spirit Energy set out a number of concerns relating to MNZ (paragraphs 3.6 to 3.9 of the Spirit Energy Relevant Representation (RR-077) and Part 4 of the Spirit Energy Written Representation (REP1-116)). The Applicant has not provided a response to Spirit Energy’s points on this matter, nor addressed them in the updated protective provisions in the draft DCO. The Applicant

requires to understand further Spirit Energy's position and its technical requirements in order to develop a refined position.

11 Decommissioning

95. Spirit Energy states a number of concerns relating to its decommissioning obligations. These include increase in vessels and helicopters, access restrictions, platform removals, flight restrictions, and decommissioning obligations (paragraph 7.1 of the Spirit Energy Relevant Representation (RR-077), and supplemented by Part 5 of the Spirit Written Representation (REP1-116). The Applicant has updated the protective provisions in favour of Spirit Energy in Schedule 3 Part 3 of the draft DCO (Document Reference 3.1) which secures aviation and marine buffer zones and corridors and a commitment to pay additional costs due to impaired helicopter access which the Applicant considers resolves Spirit Energy's concerns in this regard.

12 National Policy Statements in relation to the Affected Assets

National Policy Statement (NPS) EN-3 Relevant Paragraphs

96. NPS EN-3 recognises that offshore wind farms may be located close to other offshore infrastructure such as oil and gas, carbon capture and telecommunications. The scale and location of future offshore wind development around England and Wales means that development has occurred, and will continue to occur, in or close to areas where there is other offshore infrastructure (para 2.8.196). Where a potential offshore wind farm is proposed close to existing operational offshore infrastructure, or has the potential to affect activities for which a licence has been issued by government, the applicant should undertake an assessment of the potential effects of the proposed development on such existing or permitted infrastructure or activities (para 2.8.197). NPS EN-3 states that there are statutory requirements concerning automatic establishment of navigational safety zones relating to offshore petroleum developments (para 2.8.341). The Secretary of State should take a pragmatic approach where a proposed offshore wind farm potentially affects other offshore infrastructure or activity (para 2.8.342). Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy (para. 2.8.343). The Applicant will be expected to work with the impacted sector to minimise negative impacts and reduce risks to as low as reasonably practicable (para. 2.8.344).
97. As such, the Secretary of State should be satisfied that the site selection and site design of a proposed offshore wind farm and offshore transmission has

been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable (para 2.8.345). The Secretary of State should not consent applications which pose intolerable risks to safety after mitigation measures have been considered (para 2.8.346). Where a proposed development is likely to affect the future viability, or safety, of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these adverse effects substantial weight in its decision-making (para. 2.8.347). Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the Secretary of State to grant consent (para 2.8.348).

98. The below considers compliance with NPS policy.

Applicant Assessment (Impacts on Other offshore infrastructure and activities) requirements for Offshore Wind (NPS EN-3 2.8.196 – 2.8.203)

99. As required by NPS EN-3 (para 2.8.197 – 2.8.198), the Applicant has fully assessed all potential impacts on Spirit Energy's infrastructure close to or which has the potential to be affected by the proposed offshore wind farm, with input from aviation and offshore safety experts, as presented in the following documents Chapter 14 - Shipping and Navigation of the Environmental Statement (ES) (APP-051), Appendix 14.1 - NRA (APP-073), Chapter 17 - Infrastructure and Other Users of the ES (APP-054), Appendix 17.1 - Helicopter Access Study (APP-081) and Appendix 17.2 - Radar Early Warning System Technical Report (APP-082). The Applicant continues to assess and respond to the detailed submissions raised by Spirit Energy in its submissions to the Examination.
100. The Applicant has engaged with Spirit Energy since site selection (see para 110 below) and continues to engage (NPS EN-3 para 2.8.200) to refine mitigation with a continued view to minimising and avoiding impacts and is committed to enter into a co-existence agreement which would provide for ongoing engagement throughout the lifetime of the development (as demonstrated in the updated protective provisions in favour of Spirit Energy in Schedule 3 Part 2 of the draft Development Consent Order (Document Reference 3.1)) (NPS EN-3 para 2.8.201), and allow for successful co-existence (NPS EN-3 para 2.8.203).

Secretary of State Decision Marking (Impacts on Other offshore infrastructure and activities) requirements for Offshore Wind (NPS EN-3 2.8.341 – 2.8.348)

Statutory requirements concerning automatic establishment of navigational safety zones relating to offshore petroleum developments. (NPS EN-3 3.8.341)

101. The location and extent of the windfarm boundary was designed to take account of exclusion zones, including safety zones around the oil and gas installations (as set out in Section 21 of the Petroleum Act 1987) and operations of existing oil and gas infrastructure to successfully coexist with other marine users.

Site Selection and Site Design Process (NPS EN-3 2.8.345)

102. The site selection process is set out in ES Volume 5 - Chapter 4 - Site Selection and Assessment of Alternatives (APP-041). The site selection process was undertaken through the Round 4 TCE leasing and bidding process. A detailed study was undertaken to consider an initial zone in Bidding Area 4 for the most technically and environmentally suitable development sites. This was supported by GIS modelling and analysis which included opportunities and constraints in relation to interaction with oil and gas infrastructure. One of the key reasonings for selecting the site is because of its lower constraints compared to other regions and the opportunities to develop a site within an oil and gas field that is expected to be reaching the end of its productive life.
103. Engagement was undertaken with oil and gas operators, including both Spirit Energy and Harbour Energy, during the Round 4 bidding process by the Applicant to support the selection process of the windfarm site, given its location in the South Morecambe gas field. The Applicant has also worked closely with oil and gas operators throughout the pre-application period, with one of the key factors influencing the reduction in the windfarm site area was to facilitate the coexistence of the Project alongside oil and gas operations. The frequent engagement undertaken by the Applicant during pre-application is set out in the Consultation Report (REP1-002) and the draft Statement of Common Ground with Spirit Energy (Document Reference: 9.16) and is ongoing.
104. A windfarm site of 125km² (reflecting the Agreement for Lease (AfL) area) was assessed in the Project Preliminary Environmental Impact Report (PEIR). The windfarm site development area was subsequently reduced to 87km² and reflects the windfarm site assessed in the ES. The windfarm site refinement was undertaken following analysis of geophysical survey data, environmental analysis, consultation feedback and layout design development, and key drivers for change (alongside power density considerations). This is set out in

ES Volume 5 - Chapter 4 - Site Selection and Assessment of Alternatives (APP-041). Assessments identified the potential interaction between the South Morecambe gas field vessels and helicopter operations and the windfarm site. The location and extent of the windfarm boundary was designed to take account of exclusion zones, including safety zones around the oil and gas installations (as set out in Section 21 of the Petroleum Act 1987) and operations of existing oil and gas infrastructure to successfully coexist with other marine users.

105. Following PEIR the windfarm site was further refined to reduce the interaction with the gas field operations, and both the Calder platform and CPC-1 platforms sit outside the windfarm site boundary. The development of the mitigation in the protective provisions is also a critical part of the site selection and design process (in particular buffer zones and marine and aviation corridors) - these are discussed further below in the context of the limbs of para 2.8.235 on 'disruption and economic loss' and 'safety'.
106. The Applicant is cognisant that a decommissioning programme has been submitted by Harbour Energy for the Calder platform, which states there will be a *12-year decommissioning project, of the associated installation and infrastructure including the removal of the Calder platform, is expected to be undertaken in the period 2024 to 2035 subject to DP approval being given.*⁵ Spirit has confirmed that decommissioning activities in relation to the South Morecambe Hub "*are currently being planned for the early to mid-2030's*" (para 5.2 of Spirit Energy's Written Representation (REP1-116)).
107. NPS EN-3 (para 2.8.199) provide that applicants should use marine plans (paragraph 2.8.17-19 of this NPS and Section 4.5 of EN-1) in considering which activities may be most affected by their proposal and thus where to target their assessment. The Applicant has complied with this approach in considering Spirit Energy's assets. It is also noted that the North West Marine Plan, recognising that space in the marine environment is limited, is supportive of projects which optimise the use of space and co-exist with existing activities (Policy NW-CO-1).⁶

⁵ [Calder, Dalton & Millom Decommissioning Programmes](#)

⁶ "*Proposals that optimise the use of space and incorporate opportunities for co-existence and co-operation with existing activities will be supported. Proposals that may have **significant adverse impacts on, or displace,** existing activities must demonstrate that they will, in order of preference:*

avoid

minimise

mitigate

adverse effects so they are no longer significant.

If it is not possible to mitigate significant adverse impacts, proposals must state the case for proceeding."

Avoiding or minimising disruption or economic loss (NPS EN-3 2.8.345)

108. The Applicant has been engaging with Spirit Energy on the location of the proposed site since August 2019. The Applicant has undertaken a careful site design process (summarised in paragraphs 105 - 108 above), and the Application built in 1.5nm buffer zones around current oil and gas platforms and pipelines (as secured in the draft DCO (Document Reference 3.1) by protective provisions in favour of Spirit Energy) to allow for appropriate co-existence and minimise disruption and economic loss to Spirit Energy (Schedule 3 Part 3 of the draft DCO (Document Reference 3.1)).
109. The Applicant has had further meetings and correspondence with both Spirit Energy and Harbour Energy since submitting the Application. Following these discussions, and the submission of Written Representations from both Spirit Energy and Harbour Energy, the Applicant has provided to both parties updated protective provisions in favour of both Spirit Energy (Schedule 3 Part 3 of the draft DCO (Document Reference: 3.1) and Harbour Energy (Schedule 3 Part 2 of the draft DCO). See section 2 above. These updated protective provisions are included in the draft DCO which has been submitted at Deadline 2 (Document Reference 3.1).
110. The Applicant has also introduced and secured in the updated protective provisions further additional mitigation for potential impact to helicopter operations at both the Calder platform and CPC-1 platform, the Aviation Corridor. This allows for access under IMC conditions the majority of the time (and the Applicant's clear position is that the 1.5nm buffer ensure no restriction on VMC access) see Section 2 above. The Examination Authority (ExA) and the Secretary of State can be satisfied that there is no known impediment to such IMC access remaining, even if any foreseeable new CAA regulation changes are brought in in the future (see Sections 5-7 above).
111. In its Written Representation (REP1-116), Spirit Energy starts its "Analysis of buffer zones" (para 2.16) by setting out the implications of Visual Flight Rules (VFR) only flying as "*materially compromise the operational efficiency of Spirit's operations with consequential (and potentially very severe) safety implications*". The consequential safety implications are strongly refuted (as set out in the next section).
112. The Applicant acknowledges that there will be some residual restrictions on IMC availability, and this could have implications on operational efficiency of Spirit's operations due to flight delays and cancellations. Spirit Energy also set out their view that flight delays and cancellations could impact on decommissioning extending the schedule, the additional cost of which could be "well in excess of £10 million" (paragraph 5.7 of Spirit Energy's Written Representation (REP1-116)). This Written Representation does not take into account additional corridor mitigation developed by the Applicant following

receipt of Relevant Representations, which will allow for the majority of access under IMC conditions to continue (as well as unrestricted access during VMC, which was protected by the 1.5nm buffer zones originally proposed). But there will still be some residual impact to IMC access. To mitigate this residual impact, the Applicant has provided in the protective provisions (Schedule 3 Part 3 of the draft DCO (Document Reference 3.1) that the undertaker must pay to the owner the additional costs resulting from such impaired access.

113. As such, it is clear that Applicant has carried out a site selection and design process with a clear view to avoiding or minimising disruption or economic loss for Spirit Energy.

Avoiding or any adverse effect on safety to other offshore industries (NPS EN-3 2.8.345)

114. Spirit Energy identify aviation and shipping and navigation safety issues. The Applicant has incorporated all the shipping and navigation related mitigation requested by Spirit Energy into the updated protective provisions. The Applicant has proposed mitigation in the updated protective provisions. In particular, the Aviation Corridor will enable the vast majority of helicopter flights to access both the AP-1/DP1 platform and the Calder platform. As set out in sections 5 – 7 above of this response, the Applicant's position is that the presence of MOWF does not present a safety risk to Spirit Energy's operations and infrastructure at the Morecambe Hub. The Applicant considers this extends to the concerns raised by Spirit in relation to decommissioning. The Applicant notes that it is still analysing Spirit's position on REWS and intends to submit an updated REWS assessment at Deadline 3, so the conclusions in this section 9 are based on the assumption that issue is satisfactorily addressed by the Applicant.
115. Any residual impact is considered a logistical operational access (and therefore commercial) impact rather than a safety issue.

Conclusion on NPS Compliance

116. Spirit Energy requests that the Applicant provides a direct response to policy concerns it raised, citing wording from NPS EN-3 paragraphs 2.8.345 and 2.8.346 (response to row RR-077-22 of the Applicant's response to Relevant Representations (PD1-011)).
117. Paragraph 2.8.345, referred to by Spirit Energy, relates to site selection and site design, and provides that the Secretary of State should be satisfied that the site selection and site design has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to Spirit Energy.
118. The updated protective provisions within the draft DCO in favour of both Spirit Energy and Harbour Energy (Schedule 3 Parts 2 and 3 of the draft DCO

(Document Reference 3.1)) secure the shipping and navigation mitigation measures proposed by Spirit (including buffer zones, exclusion areas and corridors)⁷ and secure aviation mitigation measures including physical measures such as buffer zones and an Aviation Corridor and provide that the undertaker must pay to the owner of either platform the additional costs resulting from such residual impaired access.

119. The Applicant's position is that due to siting and this design mitigation (including the new Aviation Corridor) secured by Protective Provisions, 'disruption and economic loss' has been minimised and 'adverse effects on safety' (aviation and marine) have been minimised and avoided. In terms of economic loss, these are considered avoided, taking into the obligation to pay any additional costs incurred by Spirit Energy in relation to reduced helicopter access also secured by the protective provisions. It is acknowledged that there may be some operational accommodation required by Spirit Energy until decommissioning is completed, but it is considered this even if this amounted to "disruption" it is accepted by the NPSs that the scale of future offshore wind development means development will occur close to other offshore infrastructure (NPS EN-3 2.8.199), solutions for successful co-existence should be sought (NPS EN-3 2.8.203), and where a proposed offshore wind farm potentially affects other offshore infrastructure a pragmatic approach should be taken (NPS EN-3 2.8.342).
120. The same paragraph (NPS EN-3 2.8.345) concludes with a statement that "*Applicants will be required to demonstrate that risks to safety will be reduced to as low as reasonably practicable.*" By ensuring that (taking into account mitigation designed and secured in the protective provisions) there are no material safety implications, the Applicant has demonstrated that safety risks are ALARP (see paragraphs 57-83 above). It also follows that the Project meets the next paragraph (NPS EN-3 2.8.346) as the Project does not pose risks to safety, and so it follows that the Project does not "*pose intolerable risks to safety after mitigation measures have been considered.*"
121. Specifically, Spirit Energy state in their response to the Applicant's response to the Spirit Energy Relevant Representation (PD1-011) at row RR-077-22: "*The Applicant has stated in its response that it "does not consider that the presence of MOWF will materially or adversely affect the future viability, or safety, of the Morecambe Hub."* However, the test is not one of materiality but of avoiding or minimising effects. Rather, the point that requires addressing is that the Applicant must avoid or minimise economic loss or adverse effects on safety for other offshore industries, and that the Secretary of State should not consent to the proposed wind farm where it poses intolerable risks to safety

⁷ Noting REWS currently still being analysed

after considering mitigation measures.” It is considered that this Conclusion section (and the paragraphs and documents referred to) provide a full and direct response. It is noted that the Applicant’s conclusion that the presence of MOWF will not “materially or adversely affect” the safety of the Morecambe Hub *is* relevant to its conclusions under this paragraph – if there are no safety effects which are material or adverse (following secured mitigation) then this is relevant to conclusions that safety effects have been avoided or minimised, that there are no safety effects which are not ALARP, and that there are no safety effects which are intolerable.

122. The Applicant’s overall conclusion remain as summarised by Spirit Energy and stated in RR-077-25 - taking into account the mitigation secured in the protective provisions within Schedule 3 in the draft DCO (Document Reference 3.1), the Applicant does not consider (and has seen no evidence to suggest) that the presence of the Project will materially or adversely affect the future viability, or safety, of Spirit Energy’s operations at the Affected Assets.

123. This overall conclusion is drawn with reference to the final two paragraphs of the Secretary of State Decision Marking (Impacts on Other offshore infrastructure and activities) requirements for Offshore Wind (NPS EN-3 2.8.347 – 2.8.348):

“2.8.347 Where a proposed development is likely to affect the future viability or safety of an existing or approved/licensed offshore infrastructure or activity, the Secretary of State should give these adverse effects substantial weight in its decision-making.

2.8.348 Providing proposed schemes have been carefully designed, and that the necessary consultation with relevant bodies and stakeholders has been undertaken at an early stage, mitigation measures may be possible to negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the Secretary of State to grant consent.”

124. The NPS do not provide that offshore wind must have no implications for other offshore infrastructure in order to be acceptable. It is recognised that infrastructure may be located close together (NPS EN-3 2.8.199), co-existence is the goal (NPS EN-3 2.8.203) and that a pragmatic approach is needed to decision making (NPS EN-3 2.8.342). Offshore wind is considered Critical National Priority (CNP) infrastructure under the NPS. The Applicant considers that the ExA and Secretary of State can be satisfied that neither future viability nor safety of Spirit Energy’s operations at the Affected Installations is not likely to be affected by the presence of the Project. This conclusion is underpinned by the design mitigation and commitment to pay additional costs secured in proposed Protective Provisions, and further reinforced by the new Aviation Corridor. It may also be relevant to the overall

balance and weight (albeit not justifying unacceptable safety impacts) the relatively small period of overlap – the lease with The Crown Estate for the Project would be 60 years (with operation targeted by 2030 – as detailed in Section 3 Response to Actions arising from Preliminary Meeting and Issue Specific Hearing 1 (REP1-086)) and Spirit Energy has confirmed that decommissioning activities “are currently being planned for the early to mid-2030’s” (para 5.2 of the Spirit Energy Written Representation (REP1-116)).

125. Importantly, the parties have not had a chance to discuss the Aviation Corridor, and it is hoped and the considered that this will catalyse discussions to allow Spirit Energy to withdraw its objection.
126. In relation to MNZ, as stated above, the Applicant requires to understand further Spirit Energy’s position and its technical requirements in order to develop a refined position. The Applicant is also analysing Spirit’s position on REWS.
127. The Applicant reiterates its commitment to co-existence. It remains content to enter into a commercial agreement to the extent appropriate in addition to the updated protective provisions. It has also committed in the updated protective provisions to use reasonable endeavours to conclude a co-existence agreement prior to commencement of the authorised development, this would ensure that if a co-existence agreement is not concluded at this stage (or a side agreement is preferred by Spirit Energy), then there is a clear commitment to having such an agreement (which would cover detailed matter of co-existence such as crossing arrangements) in place once the detailed design is finalised. In addition, the updated protective provisions provide for mutual good faith co-operation obligations. All adding to the alignment of the proposed Project with the principles of co-existence established by National Policy.