Partners in UK offshore wind

MONA OFFSHORE WIND PROJECT

Hearing Summary (ISH4) Offshore Matters

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Image of an offshore wind farm

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1 Summary of Oral Submissions made at Issue Specific Hearing 4

ID	Agenda item	Notes
1	**Welcome, introduction, arrangements for the hearing**	
2	**Purpose of the Issue Specific Hearing**	(1) The Applicant responded to the issue raised at ISH3 and agreed that it would reformat its approach to errata to be on a document rather than deadline basis. The Applicant confirmed that going forward it would only include points that had not been addressed in updated documents, and will maintain an errata sheet to be appended within the relevant Environmental Statement where there are less than 10 errors. Where there are more than 10 errors, the Applicant agreed to incorporate errata amends within an update to the relevant chapter. The Applicant proposed a proportionate approach going forward to ensure certified documents are accurate and easy to read. The Applicant agreed to resubmit the final Environmental Statement with any errata updates by Deadline 7. The Applicant agreed to review whether tracked change versions of any documents updated would need to be submitted alongside clean versions, but expressed preference for only clean versions to be submitted due to the volume of documents requiring updates. (2) The Applicant updated the Examining Authority (ExA) on whether it intends to submit a without prejudice enhancement package for the Isle of Anglesey National Landscape and Eryri National Park. The Applicant reiterated that it does not consider there will be any significant effects on the designated landscape from the project alone, but has nonetheless taken on board comments made by NRW and ExA. The Applicant confirmed that it is willing to explore what a potential without prejudice enhancement package might look like. The Applicant confirmed that this would firstly involve discussions with key consultees, and that it will reach out to the Isle of Anglesey Council and NRW to initiate discussions. In relation to examples of enhancement adopted in the Awel y Mor Offshore Wind Project, the Applicant confirmed that its view is that the landscape and visual effects of that project are larger and more widespread than the effects from the Mona Offshore Wind Project and the Applicant confirmed that it would be looking to understand what an appropriate enhancement package would be for the Mona Offshore Wind Project taking into account the specifics of this project. The Applicant confirmed it would update the ExA on its progress on this matter at Deadline 4. [**Post hearing note**: A meeting between the Applicant, NRW-A and Isle of Anglesey County Council has been arranged for 15 November (subject to confirmation on availability) to discuss this matter.]

3	Offshore Ecology	
a	Benthic and subtidal and intertidal ecology	See below
b	Ecosystem resilience and enhancement opportunities	(3) The Applicant confirmed that there are a number of enhancement opportunities within the Irish Sea identified in the Biodiversity Benefit and Green Infrastructure Statement (APP-193) which could deliver additional intertidal and offshore biodiversity benefit from the Mona Offshore Windfarm Project. The Applicant confirmed that it is continuing to engage with prospective project partners, including statutory nature conservation bodies such as NRW and non-governmental organisations to explore enhancement opportunities. The Applicant confirmed that it is engaging with other offshore wind farm projects being proposed in the Irish Sea on ecological enhancement opportunities, as it acknowledges that there is value in delivering environmental net gains strategically rather than on a project-by-project basis. The Applicant confirmed that it is not in a position to be able to provide detail on specific opportunities, but confirmed that discussions are in progress with prospective project partners. The Applicant also outlined that it is engaging with the Wales Coast and Seas Partnership, who is in the process of developing a marine fund. The Applicant confirmed that it received an update from this organisation on 16th October 2024 confirming that the marine fund should be operational in 2025. (4) The Applicant agreed to provide an update on where matters are in relation to ecological enhancement at Deadline 4, noting it is likely that detailed discussions on any such proposals will happen post-consent and into pre-construction. The Applicant confirmed that a number of the opportunities it is exploring look at nature-based design and will need to be considered at the detailed design stage post-consent. [**Post hearing note**: See the Applicant's response to HAP_ISH4_01 in its Response to October Hearing Action Point (S_D4_6) for a further progress update on benthic intertidal and offshore biodiversity benefit opportunities]. (5) The Applicant provided more detail on various different examples of opportunities being considered in relation to nature-based design, as set out in APP-193, such as increasing the biodiversity value of turbine foundations. The Applicant confirmed that it is aware of a number of active research projects ongoing and a growing body of literature which demonstrates the potential ecological value of nature based design as well as a growing market of nature based design products available for offshore developments. The Applicant nonetheless reiterated that nature-based design will need to be considered at the detailed design stage of the project, and it will not be able to provide details of specific nature based design prior to the close of examination. The Applicant confirmed that it anticipates that elements of detailed design will be undertaken in consultation with the relevant licencing authority and statutory nature conservation bodies. (6) In relation to securing APP-193, the Applicant confirmed that this document is not currently secured through the draft development consent order (DCO) and it is therefore not appropriate

		for this document to be certified through Scheduled 15 of the DCO. The Applicant cited paragraph 4.6.5 of NPS EN-1 which states that there is no current obligation on projects in the marine environment to provide enhancement with their proposals. The Applicant confirmed that, whilst it has sought to commit to providing marine enhancement measures where possible, this is on a voluntary basis and it is not obliged to do so. (7) [**Post hearing note**: submissions on the weight the Applicant considers should be given to the Biodiversity Benefit and Green Infrastructure Statement are set out in document S_D4_6 – Applicant's Response to October Hearing Action Points.]
c	Habitat loss	(8) In relation to Figure 2.4 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) of the Environmental Statement, the Applicant confirmed that the Mona Array Area extent is outlined by the green line on this figure. [**Post hearing note**: The Mona Array Area is shown, for context, within the wider Agreement for Lease Area (solid light blue line) as this was the area within which the 2021 site-specific benthic subtidal ecology surveys were undertaken. The dashed yellow line denotes the Mona benthic subtidal and intertidal ecology study area which, as outlined in section 2.4.3 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) is the area encompassed by the Mona Array Area (solid green line), the area within one tidal excursion of the Mona Array Area (i.e. the zone of influence) and the Offshore Cable Corridor (solid dark blue line).] (9) The Applicant confirmed that loss of over half of any biotope is not a realistic scenario on the basis of the likely distribution of infrastructure across the array area. The Applicant further commented that whilst different biotope habitats have been assigned, SS.SCS.CCS and SS.SMx.OMx.PoVen represent very similar habitats. The Applicant therefore confirmed that whilst different biotopes have been delineated, the habitats are largely homogeneous across the area. The Applicant confirmed that any trigger point for a downward spiral for any particular habitat would depend on the exact nature of the biotope type and sensitivity of such. The Applicant confirmed that the communities mapped across the Mona Array Area are common across this part of the Irish Sea, as is evidenced in Volume 6, Annex 2.1: Benthic subtidal and intertidal ecology technical report (APP-087) therefore it is not a realistic scenario to consider that the infrastructure proposed as part of the Mona Offshore Wind Project would cross any kind of ecological tipping point for any of the biotopes identified. [**Post hearing note**: further detail is set out in HRAP_ISH4_06]. In relation to the SS.SCS.CCS biotope, the Applicant confirmed that impacts have not been apportioned to specific biotopes in APP-054 because detailed design has not yet been undertaken, and it is not possible to determine exactly where the infrastructure for the project will be placed on the seabed. The Applicant confirmed that the impacts have been presented as a proportion of the Marine Benthic Ecology Study Area as outlined in APP-054. The Applicant confirmed that this approach is standard practice for offshore wind farm assessments. The Applicant confirmed that this point had also been raised by the Joint Nature Conservation Committee and is an issue that the Applicant has discussed with them through

meetings held on 4 September and 14 October 2024. The Applicant has agreed to provide greater clarity regarding the impact of the maximum design scenario in relation to specific biotopes and will submit additional information at Deadline 4 in response to the JNCC's comments made at Deadline 3 which will put the Maximum Design Scenario in context of some of the biotopes and marine habitats (e.g. seapens and burrowing megafauna habitat) affected. [**Post hearing note**: This information has been provided in response to comment REP3-084.5 in the Applicant's response to JNCC ExQ1 Responses (S_D4_30) submitted at Deadline 4].

(10) In relation to Unexploded Ordonnance (UXO) the Applicant confirmed that the impacts of UXO detonation have been assessed in section 2.9.2 of APP-054. The Applicant continued that this assessment includes consideration of the likely crater size and discussion on the likely recoverability of sediments and associated communities following UXO activity. The Applicant reiterated that because it has not undertaken detailed design, it does not know the exact location of infrastructure in the Mona Array Area and assessment has therefore been undertaken over the array area as a whole. The Applicant also clarified that the location of any UXO clearance (if any is required) is unknown at this stage and the assessment has therefore not been broken down into different habitat or biotope types. [**Post hearing note:** Temporary habitat disturbance arising from the clearance of UXOs is assessed in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) and the magnitude specifically described in paragraph 2.9.2.12. As UXO clearance will most likely be within the 20 m width of disturbance assumed for cable burial (including boulder clearance) and also the 80 m width of disturbance assumed for sandwave clearance for inter-array and interconnector cables and the 40 m width for sandwave clearance for offshore export cables this has not been separately quantified but will be within the maximum design scenario of up to 60,512,833 m^2 of temporary habitat loss/disturbance during the construction phase. As discussed above with respect to the location of the infrastructure associated with the Mona Offshore Wind Project, the location of any UXOs which may require clearance are also not currently known. Therefore, the assessments in section 2.9.2 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) have also not been apportioned on a biotope-by-biotope basis but rather an assessment made against each of the Important Ecological Features potentially affected.].

(11) The Applicant confirmed that its assessment of the sensitivity and recoverability of habitats affected as a result of temporary habitat disturbance is outlined at section 2.9.2 of APP-054. The Applicant confirmed that this assessment has drawn on a number of data sources, including the Marine Evidence based Sensitivity Assessment (MarESA) and the Crown Estate's (TCE) cables report [**post hearing note:** TCE (2019) Review of Cable installation, protection, migration and habitat recoverability] which draws on evidence from analogous activities and other offshore wind farm projects.

(12) The Applicant confirmed that there is no evidence to suggest that recovery will be different from construction activities occurring in the centre of the Mona Array Area compared to the boundary.

		The Applicant confirmed that that construction is likely to be completed in phased stages and there will therefore be a gradual introduction of infrastructure and construction activities over the four year construction phase. In respect to colonisation of the turbines and any associated scour protection, the Applicant confirmed that there is no evidence to suggest that the conclusions set out in APP-054 would differ depending on the location of the infrastructure within the Mona Array Area. [**Post hearing note:** With regards to colonisation of structures, this is assessed in section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054), the spatial scales at which processes operate in the marine environmental, are such that the Applicant does not foresee that communities that develop on installed infrastructure would be markedly different in any particular part of the Mona Array Area compared to another. The predictions relating to this colonisation, as discussed in section 2.9.6 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054), would therefore be equally applicable across the entire Mona Array Area. The sensitivity of the IEFs from temporary habitat loss/disturbance, and the predicted timeframes for recovery, are presented in paragraphs 2.9.2.21 to 2.9.2.42 and Table 2.21 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054). The Applicant can confirm that, given the distances over which the infrastructure will be distributed within the Mona Array Area (e.g. the minimum distance between turbines will be 1,400 m), and that fact that construction will be a phased and gradual process over up to a four year period, construction activities in one part of the Mona Array Area are not anticipated to affect the predicted recovery of the sediments and communities elsewhere. Therefore, the Applicant does not foresee that recovery of the benthic communities would be markedly different in any particular part of the Mona Array Area compared to another, therefore the predictions of sensitivity and recovery outlined in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) would be equally applicable across the entire Mona Array Area].
d	Management plans	(13) The Applicant reiterated that Schedule 14 of the draft DCO relates to the Mona Array Area only because any transmission works must be authorised separately by NRW under a separate marine licence. In relation to pre-construction and pre-installation activities and surveys, the Applicant confirmed that the only pre-commencement works are non-intrusive surveys which would not require a marine licence. The Applicant submitted that if it were to carry out any intrusive pre-construction surveys, it would apply for a separate marine licence to NRW to undertake these works. In relation to UXO, the Applicant confirmed that UXO has its own dML requirement that is separate from condition 18 of the dML. The Applicant cited condition 21 of the dML which states that detonation of UXO cannot be carried out until a method statement has been submitted to and approved in writing by the licencing authority in consultation with the JNCC and MCA. The Applicant confirmed that it has not yet determined at this stage how many construction method statements there will be. (14) The Applicant confirmed that dML condition 18(1)(d) requires the offshore construction method statement to be in accordance with the construction methods assessed in the Environmental Statement. The Applicant confirmed that the Environmental Statement has assessed a worst

case scenario in terms of cable voltage and therefore electro-magnetic fields. The Applicant confirmed that the relevant authors of the Environmental Statement are aware of the maximum design parameters and have undertaken their assessments in accordance with these parameters. The Applicant confirmed that it is standard practice for a project assessed through a Rochdale Envelope approach for the Applicant to pass the maximum design parameters to the contractor carrying out the works so that the project is constructed in accordance with these parameters and the Environmental Statement. The Applicant confirmed that this will be done as part of the procurement exercise when procuring contractors, and that it is the Applicant's responsibility to ensure that the contract is awarded on the basis that the contractor complies with the consent and the maximum design parameters because, if the Applicant was to undertake any works that fall outside of these parameters, it is the Applicant who would be subject to any enforcement action taken.

(15) The Applicant confirmed that the maximum cable protection footprint is one of the parameters within condition 10, Table 4 of the dML and that the commitment to limit the percentage of export cable requiring cable protection to 10% of the total length of the export cable within the Menai Strait and Conwy Bay Special Area of Conservation is contained within Commitment 13 of the Mitigation and Monitoring Schedule (REP3-012).

(16) The Applicant confirmed that it needs to make a correction to condition 18(1)(e) of the dML to include pre-construction activities. [**Post hearing note**: this update has been made to the draft DCO (C1 F05) at Deadline 4].

(17) The Applicant submitted that it has taken a similar approach to other projects in relation to the production of outline offshore plans. The Applicant referred to its previous responses on this matter at Deadline 3, but nonetheless confirmed that it will review its approach in line with other projects. [**Post hearing note**: The Applicant has reviewed the approach taken on this matter for the Five Estuaries DCO application and considers it to be entirely consistent with its own. For Five Estuaries, outline offshore management plans (cable specification installation plan (CSIP) and Cable burial risk assessment (CBRA)) have been included as part of the application because, in line with the Applicant's approach for the Mona project, there are key mitigation and management measures secured within them that are needed to address concerns from relevant stakeholders. However, for Mona, mitigations regarding cable protection and seabed preparation for cable laying along the export cable route are expected to be captured within control plans required by the standalone NRW Marine Licence, rather than the dML. Those control plans are therefore set out in the Marine Licence Principles document (REP2-028)].

(18) The Applicant explained that the Marine Licence Principles Document (REP2-028) is the Applicant's understanding, based on previous NRW licences, of what the standalone marine licence might look like and has been provided to the examination to assist ExA and others in understanding how the standalone marine licence is likely to fit and align with the dML. The

		Applicant highlighted that the final terms of the standalone marine licence granted by NRW are for NRW to determine, and that REP2-028 identifies the areas that the Applicant considers this licence might cover. The Applicant agreed to review the reference in REP2-028 to an environmental monitoring plan and confirm how this is consistent with its approach that it will not undertake monitoring as set out in the Benthic subtidal and intertidal ecology assessment (APP-054) [**post hearing note**: please refer to HAP_ISH4_09 in document S_D4_6 for the Applicant's response.] (19) In relation to paragraph 2.8.221 of NPS EN-3 which requires applicants to develop an ecological monitoring programme, the Applicant submitted that this requirement only applies where significant effects are identified in the Environmental Statement to establish whether mitigation has been successful and is appropriate. The Applicant submitted that the environmental impact assessment (EIA) process (as set out in the Infrastructure Planning (EIA) Regulations 2017) requires the identification of likely significant effects. The Applicant submitted that this process is structured around likely significant effects and mitigation, with the indication being that mitigation is required to reduce significant effects wherever possible. The Applicant submitted that it would be unrealistic and impossible for a project to monitor every single impact that a project has across its lifetime, and that this is not the intention of the EIA process, particularly taking into account that impacts can be scoped out or are so negligible that they are not considered material to assessment. The Applicant confirmed that it has provided an appropriate and reasonable approach to monitoring of actual impacts of the project based on the identification of significant effects. The Applicant submitted that it will pick up any monitoring considered required by relevant regulators in this regard in the Offshore in-Principle Monitoring Plan (APP-201). [**Post hearing note**: the Applicant's submissions on NPS EN-3 para 2.8.221 are set out in HAP_ISH4_10 (document S_D4_6)].
e	Examination progress tracker [REP2-091]	(20) In relation to item 17 of the Examination progress tracker (REP2-091), the Applicant confirmed that these matters have been closed out in the statement of common ground (SOCG) with the Isle of Man Territorial Seas Committee submitted at Deadline 3 (REP3-025) The Applicant confirmed that it would update the progress tracker to take account of this update at Deadline 4. [**Post hearing note**: this update has been made in document S_PD_04 F03] (21) [**Post hearing note**: further detail on cable protection is set out in HAP_ISH4_11. "Sufficiently low profile" is considered to represent cable protection that does not reduce the water depth (referenced to Chart Datum) by more than 5%. NRW (A) D3 submission states: "NRW (A) note and welcome the intention of the Applicant to try and avoid cable protection in shallow water. We advise that providing the proposed mitigation measure is strictly adhered to - i.e. no more than a 5% reduction in water depth at any point where cable protection is placed - we are satisfied that there should be no significant impacts to the physical processes in the shallow nearshore environment."].

4	Shipping and Navigation	
a	Effects on adverse weather routeing	(22) The Applicant explained Figure 7.8 of APP-059 and explained that the Irish Sea can get particularly wavy and windy, which poses some challenges to vessels particularly when then are trying to navigate beam side on (meaning the adverse weather conditions are facing the side of the vessel). The Applicant explained that in South Westerly prevailing weather conditions, for many of the routes crossing Southeast and Northwest, the vessel would be beam on to the adverse weather conditions which can be detrimental to passenger comfort and potential passenger safety and cargo security. The Applicant confirmed that one of the ways in which these effects can be mitigated is to pass closer to land mass which provides shelter, or to change the angle of the heading vessel in relation to the weather conditions so it is less beam on. The Applicant confirmed that it looked at two years of historical vessel track data as part of its assessment which demonstrated quite a deviation from typical routes when adverse weather conditions were experienced. The Applicant explained that masters of vessels often feel their way through adverse weather conditions, meaning no two days are the same resulting in a variety of different tracks taken. The Applicant explained that slight changes in wind direction and wave heights may result in a slightly different course being more comfortable than another, meaning there aren't defined adverse weather routes. The Applicant nonetheless identified that there tends to be a deviation to the South West from typical routes in adverse weather conditions. The Applicant confirmed that it sought to show base case routes in grey as the median route, and what likely passage a vessel would take with the addition of the Mona Array Area. The Applicant confirmed that through consultation with individual operators and the bridge simulations, it sought to establish what the tipping point might be for a master to choose to pass to the Northeast or Southwest of an individual project. The Applicant explained that where conditions were sufficiently severe, the first response of the vessel might be to turn to the Southwest, which would not be possible with the Mona Array Area and so they would choose to pass to the south of the Mona Array Area. The Applicant confirmed that based on this data, it developed a future case passage plan, which predicts a deviation of adverse routes South of the Mona Array Area for the IoMSPC but that there would be minimal difference for either Stena Line or CLdN from their typical adverse routes. (23) In relation to the future passage plan to the south of Mona Array Area, the Applicant confirmed that it has sought to meet the NPS tests through the site selection process so that the Secretary of State is satisfied that efforts have been made to avoid or minimise effects with respect to the southern extent of the Mona Array Area. The Applicant reiterated that is has reduced the extent of the Mona Array Area from PEIR to increase the separation distance between the array boundary and vessel traffic associated with the Liverpool and Skeries traffic separation schemes and reduced the southwestern corner of the Mona Array Area to minimise the length of adverse weather routing for the IoMSPC. However, given the spread of adverse weather routeing tracks it would not be possible to completely avoid adverse weather routes and residual effects in

		relation to adverse weather routing remain which affects a minority of vessel transits. [**Post hearing note:** The Applicant is engaging with the IoMSPC on the outstanding residual moderate impact and is intending on issuing a draft agreement imminently.] (24) In relation to Figure 7.12 of APP-059 regarding potential cumulative effects, the Applicant confirmed that for the IoMSPC, the route between Liverpool and Douglas is not different to the project in isolation. In relation to the route between Heysham and Douglas, the Applicant confirmed that in severe weather conditions, vessel masters would choose to take the ferry south of the Morgan Array Area towards Douglas. The Applicant confirmed that this route would therefore not be affected by the Mona Array Area but would be affected by the Morgan Array Area. In relation to the Stena Line route from Liverpool to Belfast, the Applicant confirmed that there are two alternative routes; one to the East of the Isle of Man, and one to the South of the Mona Array Area, both of which would be a longer passage than passing to the West of the Isle of Man. In relation to the Heysham to Belfast route, bad weather conditions may necessitate the vessel passing beam on to adverse weather which may require rerouting to the West of the Walney wind farms. The Applicant confirmed that they could alternatively pass South and West of the Morgan array area and East of the Isle of Man or continue through the West passage of the Isle of Man. The Applicant confirmed that all of these routes are potentially viable but result in increased transit time as a result of cumulative effects. (25) The Applicant confirmed that it has done as much as it can against the NPS tests to avoid and minimise effects on adverse weather routing, and that there was nothing more the Mona Offshore Wind Project could do to reduce its contribution to cumulative effects. (26) The Applicant confirmed that in terms of the residual moderate cumulative significant adverse impacts identified for adverse weather routing with IoMSPC and Stena Line, it is engaging with both parties and working towards securing commercial side agreements to offset the impact of increased routing times. The Applicant confirmed that it has shared a draft document with Stena Line and is intending on issuing a draft agreement with IoMSPC imminently.
b	Effects on maritime Search and Rescue and emergency response	(27) The Applicant agreed to review the drafting of the definition of ‘layout principles’ in the dML and either (a) include a reference to Table 3.7 of Volume 1, Chapter 3: Project Description (APP-050) of the Environmental Statement in this definition or (b) update the title of Table 3.7 of APP-050 to align with the definition in the dML. **[Post hearing note**: the definition of “layout principles”

		has been updated in Schedule 14 of the draft DCO (C1 F05) submitted at Deadline 4. See also HAP4_ISH4_14 (S_D4_6).] (28) The Applicant confirmed that following concerns raised by the MCA and engagement with stakeholders on the SOCG, it has decided to reduce the size of the micro-siting allowance from up to 100 m for micro-siting plus up to 25 m for installation tolerance to up to 50 m for micro-siting and up to 5 m for installation tolerance, and therefore additively 55 m and intends to make this change to the dDCO at Deadline 4. **[Post hearing note**: The Applicant has updated Condition 18(1)(a)(iii) in Schedule 14 of the draft DCO (C1 F05) submitted at Deadline 4 to reflect 55 m micro-siting]. (29) The Applicant explained that micro-siting relates to the distances up to which the Applicant needs to move from the nominal offshore surface structure position [**post hearing note:** as set out in the Design Plan issued to the licencing authority for approval prior to commencement of construction] to avoid constraints e.g. new archaeology identified. The Applicant then confirmed that installation tolerance relates to the ability to place the turbine foundation at the nominal offshore surface structure position, which can be affected by, for example, environmental conditions such as currents at the seabed. The Applicant explained that micro-siting and installation can be additive. For example, it may be necessary to move a wind turbine foundation up to 50 m from the nominal offshore surface structure position to avoid an archaeological resource. The installation tolerance of up to 5 m would still be required at the micro-sited position, which could mean that the final micro-sited position is 55 m from the nominal offshore surface structure position. The Applicant agreed to review Table 3.7 of APP-050 to clarify why the micrositing and tolerance are additive. **[Post hearing note**: an explanation of why the allowances for micro-siting and installation tolerance can be additive has been provided in HAP_ISH4_15 in the Applicant's Response to October Hearing Action Points (S_D4_6)].
c	Effects on collision and allision risk to vessels	(30) The Applicant confirmed that the effects on navigation safety as a result of the Mona Offshore Wind Project show that all hazards are tolerable and as low as reasonable practicable, as shown in APP-059 and APP-098. The Applicant confirmed its understanding is that all stakeholders are in agreement with these conclusions as demonstrated through the relevant SOCGs at Deadline 3.
d	Effects on commercial shipping operations including strategic routes and lifeline ferries	(31) The Applicant confirmed that the key focus of the site selection process was to address potential on the safety of navigation. The Applicant confirmed that its second tier of consideration was on residual effects on operations and avoiding or minimising the deviations to ferry routes. The Applicant confirmed that as set out in Volume 2, Chapter 7: Shipping and navigation (APP-059) of the Environmental Statement, it set up the Marine Navigation Engagement Forum to engage with key navigation and shipping stakeholders in the Irish Sea on the approach to consideration of effects on shipping and navigation. The Applicant submitted that the Navigation Risk Assessment (NRA) and shipping and navigation chapter of the Preliminary Environmental

Impact Report (PEIR) identified that in normal and adverse weather conditions, ferries would necessitate deviations around the Mona Offshore Wind Project and this would result in greater transit distance and therefore, potentially significant effects on operations. The Applicant confirmed that it went through a process of refinement of Mona Array Area boundary to reduce potential effects on shipping and navigation, to ensure continued safe operation of routes and to avoid or minimise disruption or economic loss to key routes. The Applicant confirmed that this process is set out in paragraphs 4.11.2 and 4.11.3 of the Site Selection and Consideration of Alternatives Chapter (AS-016). The Applicant confirmed that in order to understand the effectiveness of the proposed changes being made to the Mona Array Area, it undertook bridge simulations with key stakeholders, namely the Isle of Man Steam Packet Company (IoMSPC), Stena Line and CLdN RoRo Ltd (CLdN) (formerly Seatruck), with various other organisations and individuals present, including the Chamber of Shipping and Marine Coastguard Agency (MCA), to establish whether the change to the Mona Array Area would allow for safe navigation of ferry routes around the array area. The Applicant confirmed that based on feedback from the bridge simulations, it concluded that operations could continue safely and it had minimised the effect on route diversions and as a consequence, disruption and economic loss. The Applicant confirmed it took this finding forward to the NRA Hazard Workshop to inform the shipping and navigation impact assessment for of the application, where it reconsidered the Mona Array Area and potential effects on shipping and navigation of revised boundary area. The Applicant confirmed that at the end of this process it established that the potential risks to shipping and navigation as a result of the project were tolerable, acceptable and as low as reasonably practicable. The Applicant nonetheless acknowledges that there remains a potential residual impact on operations with respect to rerouting diversions cumulatively with other Tier 1 and Tier 2 projects. The Applicant confirmed that it been engaging with operators to address the residual moderate significant impact.

(32) The Applicant explained figures 7.6 and 7.7 of APP-059, and its approach to the assessment undertaken. In relation to Figure 7.6, the Applicant clarified that when it undertook the assessment, P&O Ferries operated a route between Liverpool and Dublin, which has now ceased. The Applicant confirmed that the routes for IoMSPC, Stena Line and CLdN remain the same as assessed during the NRA Hazard workshop. The Applicant confirmed that the individual tracks that vessels may take may vary depending on weather conditions, traffic profile and a whole myriad of other factors. The Applicant confirmed that the MCA guidance MGN654 and the 90th percentile principle was followed and centre lines representing the average tracks in typical conditions were developed. The Applicant confirmed that it then verified these routes with operators through their passage plans as well as through simulations undertaken with operators. The Applicant confirmed that it then looked at the likely deviation routes of the Mona Array Area. The Applicant confirmed that no deviation is required for the IoMSPC routes as their routes pass the Mona Array Area at a sufficient distance. The Applicant contrasted that Stena Line's route between Liverpool and Belfast have multiple different passages they can take when exiting Liverpool depending on certain conditions, but the dominant route being to leave Liverpool and

pass Northwest, clearing the Southwest corner of the Isle of Man which goes through the Mona Array Area. The Applicant confirmed that its forecast deviation for this route is to deviate it north of the Mona Array Area as indicated in Figure 7.6. In relation to CLdN, the Applicant confirmed that although the route between Heysham and Dublin passes clear of the Mona Array Area, the Applicant has accounted for a slight deviation to increase the passing distance based on feedback from operators. The Applicant added that there was a reduction in the extent of the Mona Array Area from PEIR to increase the separation between the Mona Array Area and the Morgan Offshore Wind Farm: Generation Assets and address potential cumulative effects on navigational safety. The Applicant continued that as a result of this reduction, the IoMSPC route between Liverpool and Douglas no longer intersects the Mona Array Area and the deviation route for the Stena Line and CLdN routes is significantly reduced.

(33) In relation to Figure 7.7, the Applicant confirmed that this figure captures many different routes taken by individual and commercial operators, including dry and liquid cargo trade, tanker trade and many other routes throughout the Eastern Irish Sea between various different ports and harbours. The Applicant confirmed that it sought to categorise the different tracks taken over an entire year of these vessels into defined routes based on start and end locations of routes. The Applicant explained that the top two panels in Figure 7.7 show routes where it is expected that more than one vessel a day would use the route, and the bottom two panels show routes of lower frequency, with a little more than one vessel per month in terms of number of trips. The Applicant explained that whilst there is more intersection with the Mona Array Area in the bottom two panels, the importance is lessened due to the lower frequency than that of the top two panels. The Applicant confirmed that there is sufficient sea room around the Mona Array Area for these routes to be deviated safely.

(34) The Applicant confirmed that the ferry operators included in Figure 7.6 were verified during navigational simulations undertaken with respective operators, their masters and bridge teams. The Applicant confirmed that it utilised the experience of its in-house master mariners for this exercise, who are familiar with operating in this area on these types of vessels, to ensure that deviations are valid. The Applicant confirmed that it understands its position that there are no significant adverse effects from the project alone to strategic routes and lifeline ferries is agreed by operators and stakeholders.

(35) The Applicant went on to discuss Figure 7.10 of APP-059, and confirmed that the same approach was taken to this assessment as was the case with Figures 7.6 and 7.7. The Applicant explained that Figure 7.10 shows cumulative impacts to take account likely deviations with the addition of the Morgan Generation Array Area and Morecambe Generation Array Area. For the routes taken by the IoMSPC, the Applicant explained that the typical route passes clear of the Mona Array

Area, but a minor deviation would be required to increase clearance of this route from the Morgan Array Area. For the Heysham to Douglas route, the Applicant explained that a slight deviation would be required. The Applicant confirmed that for the Liverpool to Belfast route, there are various options as to which side of the Isle of Man to pass. The Applicant confirmed that the route taken most frequently is to the West of the Isle of Man, for which the deviation around the Mona Array Area is the same. The Applicant nonetheless confirmed that for the passage East of the Isle of Man, with the presence of Morecambe Array Area, Morgan Array Area and the existing Walney Wind Farms, there would be several deviations required to complete this passage. In relation to CLdN, the Applicant explained that the route between Heysham and Dublin is deviated in the same way as it is for project alone deviations. The Applicant confirmed that the passage between Heysham and Warrenpoint would need to pass south of the Morgan Array Area between the latter and the Mona Array Area. The Applicant confirmed that, with the exception of the deviation to Stena Line's route to the West of the Isle of Man, all of the deviations shown in Figure 7.10 are not caused by the Mona Array Area, but are caused by other Tier 1 and Tier 2 projects.

(36) The Applicant then explained Figure 7.11 of APP-059, the top two panels of which are the higher frequency routes and the bottom two panels of which are the lesser frequency routes as explained in relation to Figure 7.7. The Applicant confirmed that the top two panels only contain routes that are bound for Liverpool and are clear of other cumulative projects and the impacts on the routes is the same as previously discussed in relation to Figure 7.7. In relation to the bottom two panels, the Applicant confirmed that these routes would require further deviation with other Tier 1 and Tier 2 projects. The Applicant confirmed that these routes were assessed as part of the Navigation Risk Assessment (APP-098) which sought to ensure there was sufficient sea room between these cumulative projects to ensure safe passage.

(37) In relation to Mooir Vannin Offshore Wind Farm (MV), the Applicant confirmed that this was a Tier 2 project at the point of carrying out the assessments and NRA hazard workshop in September 2023, as MV did not submit a scoping document into the public domain until October 2023. The Applicant confirmed that the conclusions of significance in APP-059 consider MV on the basis of the information available for this project, but recognising that projects generally go through significant design change from scoping to application submission and data was likely subject to change. The Applicant explained that through APP-059 and APP-098, it was determined that there was sufficient sea room between the Mona, Morgan and Morecambe array areas and existing projects, so that there would not be a significant impact on typical routes taken. The Applicant confirmed that with the addition of the MV project, there were questions about some of the routes bound for the Isle of Man, and the viability of a passage East of the Isle of Man particularly in relation to the Stena Line route between Liverpool and Belfast. The Applicant confirmed that with the addition of MV, this route would probably be no longer viable, and the route to the West of the Isle of Man would be preferable as it would be quicker. The Applicant confirmed that Stena Line agreed with this position when this conclusion was reached at the NRA Hazard Workshop.

		(38) The Applicant confirmed its position that there is nothing further it can do to mitigate cumulative effects as a result of the contribution from Mona Offshore Wind Project, and it will be for other projects to mitigate the effects that their projects contribute to cumulative effects on shipping and navigation.
		(39) The Applicant agreed to seek a SoCG with Stena Line (subject to Stena Line's agreement) [**Post hearing note:** Stena Line have agreed to the preparation of a SoCG for submission at Deadline 5]**.** The Applicant confirmed that it has tried to engage with CLdN throughout 2024 and specifically following submission of the application to inform them that they can register as an interested party on 09 April 2024. The Applicant wrote to CLdN again on 14 June following submission of relevant representations and on 16 September 2024 to flag that the Examining Authority had directed a question in ExQ1 to CLdN. On all occasions, the Applicant made offers for a meeting, but has not received a response. The Applicant confirmed that discussions are ongoing with the Chamber of Shipping in relation to emergency towing vessel capability. The Applicant confirmed that at the NRA Hazard Workshop held in September 2023, it was concluded that the benefits of ETVs were not proportionate to the navigation risks and therefore was not adopted.
	Monitoring	(40) The Applicant confirmed that the Navigation Monitoring Strategy as referred to at page 68 of APP-059 is the same as the Vessel Traffic Monitoring Strategy (VTMS) as secured through condition 18 of the dML. The Applicant confirmed that the requirements for the marine traffic monitoring, pre and post construction, are set out in MGN654 and its annexes as detailed in section 6.6 of the VTMS and on page 18 of MGN564. The Applicant confirmed that it has not prescribed the duration for the monitoring post-construction, but expects that this will be agreed with the licencing authority and MCA post-consent. The Applicant agreed to review whether it would be appropriate to submit an outline VTMS in addition to the Offshore In-principle Monitoring Plan (APP-201). [**Post hearing note**: details of the principles of this monitoring have been provided in HAP_ISH4_16 in the Applicant's Response to October Hearing Action Points (S_D4_6)].
5	**Commercial Fisheries**	
a	Effects on Scallops	(41) Detail was provided by the Applicant with regard to the potential impact "Loss or restricted access to fishing grounds", specifically on the Scallop vessels – Scottish west coast receptor during the operational phase (Section 6.8.2 of Volume 2, Chapter 6: Commercial fisheries (APP-058)). The Applicant explained why it has defined the sensitivity of this receptor as medium and the magnitude of impact as low. The Applicant confirmed that the medium sensitivity assigned to the Scallop vessels - Scottish west coast receptor group took into account aspects such as its limited

spatial adaptability, its limited spatial tolerance, i.e. limited ability to fish in other areas and the specificity of the fishing grounds themselves.

(42) The Applicant submitted that this receptor group is a nomadic fleet with regard to king scallops, but that this is nonetheless a key fishing ground for queen scallops for this fleet. The Applicant confirmed that the importance of this area for queen scallops was why this medium sensitivity was assigned to this receptor (compared toother commercial fisheries receptor groups). In relation to the magnitude of impact, the Applicant confirmed that it assigned a higher magnitude of impact at PEIR (medium) because the assessment did not take account of the Scallop Mitigation Zone (SMZ) at this stage. In the final Environmental Statement, the Applicant explained that it reduced the magnitude of impact from medium to low taking into account the mitigation provided by the SMZ and, therefore, concluded a minor adverse impact. [**Post hearing note**: in addition to the SMZ, additional mitigation measures adopted and considered in the impact assessment presented in the final ES, for example, 1,400 m infrastructure spacing and roughly north to south orientation of wind turbine rows. When these measures were considered alongside the SMZ, the assessment concluded that the magnitude of impact was reduced from Medium to Low. When combined with the Medium receptor sensitivity, a Low Adverse impact was, therefore, predicted]. The Applicant concluded that the SMZ was a key factor in reducing the overall significance of this impact (from moderate adverse to minor adverse) on the Scallop vessels - Scottish west coast receptor group. ". The Applicant recognised that the queen scallop fishery in this area is very discreet, and that the scallop beds are not constrained by either the Mona Array Area or others that we may discuss in reference to cumulative assessment. In practice, they extend between project site boundaries.

(43) The Applicant confirmed that the area coloured red in Figure 2.1 of REP3-066 is recognised as a Very Important queen scallop fishing ground as identified by fishing stakeholders, which is why this area was identified for the SMZ.

(44) The Applicant confirmed that it identified a negligible magnitude of impact in relation to displacement of fisheries (during the construction phase), because the entire construction area would not be closed to fishing activity during the construction period. A series of safety zones and voluntary exclusion zones around construction vessels would be used in a "rolling" manner. The Applicant continued that during the operational phase, on the assumption of the efficacy of the SMZ, fishing access/activity would be able to continue within the Mona Array Area.

(45) The Applicant confirmed that it has fully assessed the ecological impacts on scallops within Volume 2, Chapter 3: Fish and shellfish ecology (APP-055) during the construction, operation and maintenance and decommissioning phases, and did not predict any significant effects on queen scallop populations. The Applicant confirmed that it does not predict any significant effect on the queen scallop or king scallop stocks as a result of construction activities. The Applicant confirmed that the conclusions presented in APP-055 rely on a range of sources of evidence,

including the Marine Evidence based Sensitivity Assessment (MarESA) and various scientific studies on scallops and scallop ecology [**Post hearing note:** e.g. Schmidt *et al*. 2008, Laming *et al*., 2013, Brand *et al.*, 1991 and Kaiser *et al.* 2018; see section 3.9.2.19 *et seq* of APP-055], as well as historic offshore wind farm monitoring (for example, the recovery of sediments following cable installation activities; RPS, 2019). The Applicant confirmed that this evidence strongly indicates that both queen and king scallops will return into the impacted areas through a range of either adult migration or through larval dispersion and settlement. The Applicant also explained that construction will occur in phases throughout a four-year period, with construction activities only affecting a small proportion of the total footprint of the Mona Array Area at any one time, which will allow recovery of scallop individuals and populations throughout that phase and throughout post-construction. The Applicant concluded that it does not predict any significant reductions on the scallop stocks as a result of the project. The Applicant explained that it is not possible to quantify a reduction, other than to say that it does not expect any significant effects to arise on the population, beyond those expected due to natural variation.

(46) The Applicant confirmed that it has made significant commitments with regard to cable burial as presented in the Outline Fisheries Liaison and Co-existence Plan (REP3-017), and has tightened up the language of some of these commitments to address concerns being raised by stakeholders. For example, the Applicant explained that it has committed to include consideration in the Cable Burial Risk Assessment (CBRA) of seabed level change over time, and consideration of gear penetration and snagging risk as key factors to determine target burial depth. The Applicant confirmed that after discussions with stakeholders, it has made a commitment to include a queen scallop monitoring programme pre and post construction up to 5 years with adaptive management in terms of the duration of the monitoring. The Applicant clarified that if it can demonstrate that there is no effect on queen scallops as a result of the project, it would reserve the right to engaging with the licencing authority on finishing the monitoring programme earlier, or if 5 years appears insufficient to conclude the monitoring, the Applicant may continue monitoring past 5 years. The Applicant submitted that it would engage with fishing stakeholders on the results of the monitoring annually.

(47) The Applicant confirmed that it has assessed the impacts of the project on tidal streams and physical processes in Volume 2, Chapter 1: Physical Processes (APP-053) of the Environmental Statement, and that it has taken a precautionary approach in its assessment in line with scientific evidence backing up its conclusions. [**Post hearing note**: The effect of changes in physical processes (i.e. wave and tidal regime and sediment transport processes) on seabed habitats (on which scallops rely) has been assessed within sections 1.9.3, 1.9.4 and 1.9.5 of Volume 2, Chapter 1: Physical Processes (APP-053) and section 2.9.9 of Volume 2, Chapter 2: Benthic subtidal ecology (APP-054). These concluded that the effect on subtidal coarse and mixed sediments which characterise the array area will be of negligible significance due to the small magnitude of effect and the highly localised changes in physical processes. As such, there is no

potential for changes to physical processes to affect fish and shellfish receptors, including queen and king scallops.

(48) The Applicant confirmed that the SMZ amounts to around 37% of the wider queen scallop area, with the SMZ being approximately 57 km^2. [**Post hearing note:** the extents of the scallop ground areas as presented in Figure 2.1 of the Appendix to ExQ1 Scallop Mitigation Zone (REP3-066) are as follows: Red shaded area ('Very important queen scallop ground'/the proposed SMZ): 57.8 km^2, pink shaded area ('Good fishing in stonier ground'): 25.4 km^2; Yellow shaded area ('Queen scallop fishing ground, not as prolific this year, but in other years'): 68.7 km^2 (Note the yellow shaded area comprises a northern and a southern section, with areas of 26.5 and 42.2 km^2 respectively); Green shaded area ('unfished area for queen scallops'): 148.4 km^2.] The Applicant confirmed that when considering how best to mitigate potential impacts on access to scallop grounds, it also had to consider wider site selection and mitigation requirements across the project, including for example, shipping and navigation. The Applicant submitted that it focused on area of Very Important queen scallop fishery identified by fisheries stakeholders and engaged with fisheries stakeholders in the identification of the SMZ location. The Applicant added that in addition to the SMZ, fisheries stakeholders can continue to fish throughout the rest of the Mona Array Area, due to the Applicant's commitment to retain a minimum 1,400 m spacing between rows of turbines and a roughly North to South orientation of turbine rows. The Applicant further highlighted that scallop grounds also extend outside of the Mona Array Area to the South and North.

(49) The Applicant outlined paragraph 3.8.322 of NPS EN-3 which refers to the Secretary of State being satisfied that the Applicant has sought to design the proposal, having consulted the MMO and other relevant stakeholders. The Applicant submitted that the Applicant has clearly designed the project in consultation with relevant stakeholders, with the intention of minimising any loss of fishing opportunity, taking into account effects of other marine interests. The Applicant submitted that in respect of paragraph 2.8.323 of NPS EN-3, the Secretary of State will need to consider the extent to which disruption to the fishing industry has been mitigated where reasonably possible. The Applicant submitted that it has gone beyond reasonable mitigation in terms of protecting the key scallop ground within the Mona Array Area, whilst allowing other fishing to continue throughout the remainder of the array area through turbine spacing and orientation, taking into account the scallop fishing grounds that also exist outside of the array area. The Applicant submitted that all of these factors should be taken into consideration when considering the mitigation that has been applied by the Applicant.

(50) The Applicant explained that capacity or power density of a wind farm area is the target capacity of the wind farm at the onshore connection point divided by the area of the wind farm. The Applicant confirmed that it has established a capacity density of 6.2 MW/km^2 on the basis that the onshore connection point is targeted at 1.5 GW, which is then divided by 243 km.

		(51) In relation to the potential to increase the size of the SMZ, the Applicant firstly submitted that the seabed cannot be considered to be homogeneous and empty of other constraints. The Applicant submitted that there are a number of other constraints within the wind farm that have been outlined with respect to other topics, but also with commercial fisheries in respect of UXO, ground conditions and other infrastructure such as cables which need to be taken into account. Secondly, the Applicant added that whilst theoretically it is possible to pack the turbines as close as possible to each other based on the constraints of the layout principles, in reality that density would reduce the overall yield of the wind farm and would reduce the efficiency of the project in terms of energy produced, but also reduce the viability of the project in terms of its ability to generate energy. The Applicant confirmed that the purpose of the project is to produce energy into the grid, but also to compete with other projects in a contract for difference scenario. The Applicant confirmed that the suggested densities of 10MW/km² or more would create significant impacts for a project of this nature and does not present a viable solution. The Applicant submitted that it needs to have the flexibility within the remainder of the array area outside of the SMZ to be able to site turbines to facilitate both constraints and the overall yield of the wind farm [**Post hearing note**: the Applicant has calculated the increase in capacity density associated with the scenarios requested by the ExA for increases in the size of the SMZ under HAP_ISH4_18 in the Response to October Hearing Action Points (S_D4_6)]. (52) The Applicant explained that it engaged with stakeholders early in the development phase of the project and took on board their key concerns, which were sufficient spacing between infrastructure and allowing fishing to continue within key areas. The Applicant confirmed that in developing the SMZ, it engaged with fishing stakeholders, including querying the faithfulness of queen scallops to the current grounds, who confirmed that the areas outlined in Figure 2.1 of REP3-066 have not changed for 15 years. The Applicant submitted that it is seeking to protect the key area for scallop fishing, as identified by the fisheries stakeholders and has done everything it can to minimise impacts on access throughout the rest of the array area. The Applicant highlighted that final layout developed post consent will need to take account of many different constraints, some of which are unknown, and therefore it is essential for the Applicant to maintain flexibility in its layout as is the case with every offshore wind DCO application. The Applicant submitted that it relies on data to be collected through pre-construction surveys and final site investigation to finalise the design of the project.
b	Table 6.13 MDS considered for the assessment of potential impacts on commercial fisheries [APP-058]	(53) [**Post hearing note**: Table 6.13 of Volume 2, Chapter 6: Commercial fisheries (APP-058) includes consideration of seabed preparation. The total footprint of seabed preparation is taken from Table 2.18 of Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) which states that the footprint associated with seabed preparation activities in the Mona Array Area includes 923,839 m^2 of temporary habitat disturbance in association with sandwave clearance for foundations, 19,050,000 m^2 in association with inter-array and interconnector sandwave and boulder clearance and 26,074,994 m^2 in association with the deposition of sandwave clearance material. Additionally within the Mona Offshore Cable Corridor there is 8,640,000 m^2 of

		temporary habitat disturbance associated with export cable sandwave and boulder clearance activities and 3,008,000 m^2 associated with the deposition of sandwave clearance materials.] (54)[**Post hearing note**: Table 6.13 of Volume 2, Chapter 6: Commercial fisheries (APP-058) includes consideration of loss or restricted access to fishing grounds due to rolling advisory exclusion zones of 500 m which will be present around vessels installing inter-array cables, interconnector cables and subtidal export cables. The Applicant has committed to implementing rolling advisory exclusion zones around cable installation vessels to minimise restrictions on access to the Array Area during construction. (55)The Applicant notes that tables 3.19, 3.22 and 3.25 of Volume 1, Chapter 3: Project description (APP-050) state that for inter-array, export, and interconnector cables, the maximum width of seabed affected by installation per cable is 20 m, with an associated maximum seabed disturbance area of 6,500,000 m^2 for inter-array cable installation, 7,200,000 m^2 for export cable installation and 1,200,000 m^2 for interconnector cable installation. (56)The Applicant highlights that inter-array cable installation will occur over 12 months in a 24-month period, export cable installation will occur over 15 months in an 18-month period and interconnector cable installation will occur over 4 months in an 18-month period (Tables 3.19, 3.22 and 3.25 of Volume 1, Chapter 3: Project description (APP-050)). Once cables have been installed to their target burial depth, there will be no ongoing restricted access to fishing grounds in that area. The spatial extent considered in the Maximum Design Scenario for the assessment of 'loss or restricted access to fishing grounds' associated with cable installation is therefore based on the area of the rolling exclusion zones around cable installation vessels, rather than the maximum seabed disturbance area, since access would only be restricted where construction was ongoing (or, in cases where target burial depth was not achieved, in which case a temporary restrictions would be put in place, which has also been taking into consideration in the MDS). (57)The Applicant highlights that the footprints of seabed preparation activities and cable installation seabed disturbance have been considered in the impact assessments for ecological receptors in Volume 2, Chapter 2: Benthic subtidal and intertidal ecology (APP-054) and Volume 2, Chapter 3: Fish and shellfish ecology (APP-055), and that the potential for resulting indirect effects on commercial fisheries receptors have been considered within 'potential impacts on commercially importance fish and shellfish resources' in section 6.8.7 of Volume 2, Chapter 6: Commercial fisheries (APP-058)].
c	Examination progress tracker [REP2-091]	(58)In response to submissions made by Mr Meyrick, the Applicant submitted that paragraph 2.8.251 of NPS EN-3 includes "*where reasonably possible*". The Applicant also submitted that it has explained why the focus of its mitigation developed to date has been on the existing fishing activities and scallop fishery in particular (such as the SMZ and turbine spacing/alignment). The

		Applicant directed Mr Meyrick to paragraph 3.6.3.1 of the Applicant's Biodiversity Benefit and Green Infrastructure Statement (APP-193), which outlines opportunities to restore fish and shellfish habitats in the offshore environment as part of intertidal benefits, as well as a number of other measures proposed. (59) The Applicant updated the ExA on the SOCG with the Isle of Man Territorial Seas Committee (IoMTSC) (REP3-025) and confirmed that matters of continuing discussion relate to the Applicant's commitment to queen scallop monitoring pre and post construction, as set out in the updated OFLCP at Deadline 3 (REP3-016), where the IoMTSC were keen to review the updated outline fisheries liaison and co-existence plan (J13 F02) submitted at Deadline 3 to confirm the commitment to scallop monitoring. (60) The Applicant confirmed that it has not undertaken a forensic analysis of reduction on the annual value of queen scallop landings, and any calculation undertaken is not specific to queen scallops, but is across all fishing receptors assessed. [**Post hearing note**: Based on experience and lessons learnt from undertaking previous commercial fisheries assessments, a conscious decision was taken as part of the EIA process to not rely on overly qualitative criteria when defining magnitude of impact. Instead, more quantitative definitions were used, i.e. Medium magnitude of impact was defined as "*the impact would affect an area from which a moderate proportion (11-50%) of a commercial fishing receptor's annual value of landings is caught and/or would lead to a 11-50% reduction in annual value of landings.*" Whilst this approach was taken with the intention of providing more context and transparency to the impact assessment, it is not within the scope of an EIA to provide a formal economic assessment of the impact of a project on selected commercial fisheries receptors.]
6	**Other Offshore Infrastructure and Activities**	
a	Potential wake effects for other offshore wind farms	(61) The Applicant submitted that the separation between the Mona Offshore Wind Project and other existing offshore wind farms is significant, and over 30km to the closest Orsted IP wind farm. The Applicant further submitted that given the reduction of the Mona Array Area boundary since PEIR, the distance between the Mona Array Area and Orsted IP projects has increased since PEIR, thus reducing any potential impacts. The Applicant submitted that it has complied with paragraph 2.8.345 of NPS EN-3 because of the final refinement of the Mona Array Area at PEIR but most importantly because of the distance at application stage between the Mona Array Area and Orsted IP projects. The Applicant submitted that this distance as embedded in the design of the original site demonstrates that the Applicant has minimised disruption or economic loss to other offshore industries. (62) The Applicant submitted that paragraph 2.8.197 of NPS EN-3 is fundamental to the Applicant's position on wake loss. The Applicant submitted that in the Awel y Mor Offshore Wind Farm, the distance from this scheme to the Rhyl Flats Offshore Wind Farm was 5.1km and to the North Hoyle Offshore Wind Farm is 11km. The Applicant confirmed that the latter project dropped its

claim of wake loss effect part way through the Awel y Mor Offshore Wind Farm examination. The Applicant cited paragraph 2.8.197 of NPS EN-3 which relates to the potential to affect activities for which a licence has been issued by government. The Applicant highlighted that this paragraph only discusses licences (which could potentially be a marine licence or generation licence for a project), and does not mention consents. The Applicant submitted that this policy does not authorise the operation of a wind farm, or the taking of wind of any kind for economic activity. The Applicant submitted that a generation licence allows a project to operate as an operational wind farm which is necessary to operate in accordance with the Electricity Act 1989. The Applicant submitted that this does not authorise economic activity in the same way as, for example, an oil and gas extraction or minerals extraction licence can. The Applicant concluded that, not only is the Mona Offshore Wind Project not close to the Orsted IP projects, but it also does not have the potential to affect any activities for which a licence for these projects has been issued. The Applicant submitted that there is therefore no basis on which policy 2.8.197 of NPS EN-3 applies, and the Applicant is not required to undertake an assessment of the potential effects of the development on the Orsted IP projects.

(63) In relation to other nearby offshore wind projects (such as Awel y Mor Offshore Wind Farm), the Applicant submitted that it is not obliged to assess the effects of wake loss on these projects for the same reasons as cited above, and the Applicant reiterated that no other nearby projects have made representations asking for a wake loss assessment to be undertaken by the Applicant. The Applicant confirmed that it has been aware of the submissions made by the Orsted IPs since section 42 consultation stage of the project and its position has not changed.

(64) In relation to distance, the Applicant confirmed that whether wake loss effects need to be assessed is on a case-by-case basis. The Applicant outlined the Crown Estate's (TCE) position in terms of leasing arrangements for round 4 leasing projects. The Applicant highlighted that TCE set a distance of 7.5km between any new project and existing projects. The Applicant also highlighted certain other interests TCE has granted whereby consent of a party needs to be secured in order for a new offshore wind project to come forward, when closer than 7.5 km, because they recognise that there is potential for an interaction between two offshore wind projects (e.g. cables, areas leased for minerals extraction etc. and buffer areas that TCE requires consent to be secured before a project goes ahead). The Applicant submitted that this distance of 7.5km must be the starting point for when distances are relevant in relation to interaction between two offshore wind projects.

(65) The Applicant submitted that it does not consider that an assessment of the likely significant effects on wake loss effects to be necessary in this case. The Applicant nonetheless referred to paragraph 2.8.198 of NPS EN-3 which states that an assessment should be undertaken for all stages of the lifespan of the wind farm in accordance with the appropriate policy and guidance for offshore wind farm areas. The Applicant submitted that there is no appropriate policy or guidance for offshore wind farm areas on which to undertake a wake loss effects assessment if

one were to be deemed necessary in this case. The Applicant also highlighted that the Orsted IPs have not proposed undertaking such an assessment for any of the proposed projects they are currently bringing forward or undertook one for any of their existing operational projects consented under the Planning Act 2008 or other similar legislation. The Applicant submitted that this assessment is not something that has ever been undertaken to date, including for projects consented under the Planning Act 2008 and almost identical NPS policy wording, and there is no guidance which would allow a transparent and informed assessment to be undertaken of a new wind farm on the yield of existing operational wind farms. The Applicant further submitted that the modelling of wake loss effects is entirely dependent on very accurate information of the wind farm that is being proposed as well as the existing operational wind farm (in terms of their current yield, when they have downtime, their internal wakes etc.). The Applicant confirmed that this information is all confidential information not available in the public domain. The Applicant referred to the Orsted IP projects' interactions with each other in relation to being able to create a baseline and accurately identify what the existing wind yield is for those schemes. The Applicant submitted that the Mona Offshore Wind Farm at this stage does not have a detailed design, and has no turbine model or details of array layout that would be required as a key input to such an assessment. The Applicant highlighted the need for validated software models in order to undertake an assessment, with no current accepted industry standard model or methodology. The Applicant continued that there is no recognised approach to assessment that accords with IEMA guidance and allows any robust analysis to be undertaken. The Applicant therefore submitted that there is no meaningful data available to the Applicant to be able undertake an assessment on the effects the project may have on the Orsted IP projects in relation to wake loss. The Applicant confirmed that although undertaking such an assessment would be complex, it is not the Applicant's position that it is not undertaking an assessment due to the complexity of it. The Applicant's position is that in terms of paragraph 2.8.197, it is not sufficiently close to the Orsted IP projects to necessitate undertaking an assessment and, even it was sufficiently close, it does not have the potential to affect activities for which a licence has been issued.

(66) The Applicant submitted that its assessments are done on a maximum design scenario basis, but this necessitates knowing key parameters. The Applicant submitted that without knowing which model of turbines are going to be brought forward, the modelling for a wake loss effects assessment is meaningless. In relation to the sharing of information, the Applicant submitted that it recognises the Orsted IPs were to share their commercially sensitive information under a non-disclosure agreement, but the purpose of an environmental impact assessment is for there to be an open and transparent consideration of material so that the wider public and interested parties can access this information and consider the environmental impact assessment. The Applicant submitted that information assessed in an environmental impact assessment is not typically provided under a non-disclosure agreement, but is publicly information that can be tested by all parties. The Applicant also reiterated that different parties use different models, meaning there is no accepted universal model on which to undertake an assessment. The Applicant requested

		that any information or modelling provided by the Orsted IPs takes into account the impact of the operational Orsted IP projects on each other, given their proximity to each other which will result in existing wakes, to provide a baseline.
b	Co-existence with other operational and planned offshore infrastructure and activities	
7	**Civil and Military Aviation and Defence Interests**	
a	Mitigation of effects on the Blackpool Airport Minimum Sector Altitude	(67) The Applicant confirmed that there is no disagreement between the Applicant and Blackpool Airport, but that Blackpool Airport is undertaking its ongoing safeguarding assessment, which is already taking into account the potential impacts of the Mona Offshore Wind Farm and will design in required mitigation, which the Applicant expects will involve a change to the minimum sector altitude. The Applicant confirmed that Blackpool Airport is still on target to complete its review in November, but that its review then needs to be checked by the Civil Aviation Authority meaning there is a risk that this process will not be finalised prior to the end of examination. The Applicant confirmed that Blackpool Airport is nonetheless looking at mitigation requirements as a result of the Mona Offshore Wind Farm and there is no indication that Blackpool Airport's view on what is required for mitigation (raising the minimum sector altitude from 2000ft to 2200ft) differs from that of the Applicant.
b	Mitigation of effects on civil Primary Surveillance Radar (PSR)	(68) The Applicant confirmed that it is engaging with NATS on the mitigation services agreement, and the parties have agreed to work towards completion of this agreement prior to the end of examination. The Applicant agreed to updated ExA of its progress on this agreement at Deadlines 5. (69) The Applicant confirmed that it included drafting for a requirement to be included in the DCO in relation to effects on PSR in the SOCG between the Applicant and NATS submitted at Deadline 3 (REP3-029). The Applicant confirmed that it has not yet engaged with NATS on the adequacy of this wording but confirmed that as this wording has been taken from the recently granted Awel y Mor Offshore Wind Farm, this wording should be appropriate. The Applicant confirmed it will engage with NATS on this wording. [**Post hearing note**: the Applicant has included detail on the difference between various NATS bodies referred to in the commercial side agreements tracker under HAP_ISH4_25 in the Applicant's Response to October Hearing Action Points (S_D4_6)]. (70) The Applicant confirmed that engagement had paused with Ronaldsway Airport whilst they undertook an aviation surveillance strategy to understand their safeguarding requirements for the next 20 years. The Applicant confirmed that the first stage of this strategy is now complete, and a copy of the preliminary strategy was shared with the Applicant at a meeting between the two parties on 10 October 2024. The Applicant confirmed that it is still reviewing this strategy , and is engaging with Ronaldsway Airport in relation to both the Mona Offshore Wind Farm and Morgan Offshore Wind Farm: Generation Assets. The Applicant also confirmed it had a meeting

		set up with Ronaldsway Airport on 24 October 2024 to discuss next steps. [**Post hearing note**: On 24 October 2024, Ronaldsway Airport confirmed that a new radar system is likely to be required to address the Airport's safeguarding requirements in response to onshore and offshore renewable energy project proposals in the eastern and western Irish Sea, including the Mona Offshore Wind Project. The Airport indicated that further steps are required to complete their surveillance strategy and confirm details of the required mitigation, which is unlikely to be completed before the end of the Examination. The Applicant has therefore agreed to provide draft wording of a DCO requirement for Ronaldsway Airport's consideration.].
c	Mitigation of effects on military PSR at BAE Warton	(71)The Applicant confirmed that BAE Systems Warton is implementing a new radar system at its aerodrome which is expected to be operational by the end of year, subject to site acceptance, flight trials and the completion of a safety case. The Applicant confirmed that this process is subject to a non-disclosure agreement. The Applicant explained that BAE Systems Warton was anticipating being able to provide further information mid-October and indicated that mitigation was likely to include as a minimum optimisation of the radar for the Mona Offshore Wind Farm, flight trials and a safety case to the CAA. The Applicant confirmed that since then, BAE Systems Warton had provided an update on 15 October 2024 on the timescales for discharging the non-disclosure agreement enabling them to engage with the Applicant on mitigation requirements, confirming that it is not able to remove the non-disclosure agreement until full commissioning of the new radar, which is not likely to take place until the end of the year. The Applicant explained that BAE Systems Warton are looking to see if they can achieve an earlier discharge of the non-disclosure agreement (NDA) provided certain conditions are met and would be willing to review a request from the Applicant for specific technical information to be immediately released through the Defence Infrastructure Organisation (DIO). The Applicant confirmed that it has followed up with an information request, via DIO, that will allow it to begin consideration of mitigation requirements and has a meeting with BAE Systems Warton on 1 November 2024 to discuss this issue further. The Applicant clarified that because of the non-disclosure agreement currently in place, it does not know whether the new radar system will cover mitigation for the Mona Offshore Wind Farm. The Applicant confirmed that interim mitigation can be provided, but it is just a question as to whether it is necessary dependent on the timing of release into service of the new radar system. **[Post hearing note**: during the meeting of 1 November, BAE Systems Warton confirmed that they were engaging with the DIO on the information request from the Applicant, however, BAE Systems Warton were not able to provide an update on timescales for discharge of the NDA. BAE Systems Warton also confirmed that they would engage with DIO on the adequacy of the DCO requirement the Applicant has proposed to DIO concerning the primary surveillance radar at Warton included under Appendix 1 of the SoCG with DIO submitted at Deadline 3 (REP3-033)].

		(72) The Applicant confirmed that it has reached out to the DIO to set up a meeting but has been unsuccessful. The Applicant confirmed that it will continue to engage with the DIO to understand their concerns in relation to the drafting of DCO Requirements.
8	**Review of issues and actions arising**	
9	**Any other business**	
10	**Closure of the hearing**	