AQUIND Limited

AQUIND INTERCONNECTOR

Applicant's Response to action points raised at ISH1, 2 and 3, and CAH 1 and 2

The Planning Act 2008

Infrastructure Planning (Examination Procedure) Rules 2010 Rule 8(1)(c)

Document Ref: 7.9.22

PINS Ref.: EN020022

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PINS REF.: EN020022

DOCUMENT: 7.9.22

DATE: 23 DECEMBER 2020

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DOCUMENT

Document	7.9.22 Applicant's Response to action points raised at ISH1, 2 & 3, and CAH1 & 2
Revision	001
Document Owner	WSP UK Limited
Prepared By	Various
Date	23 December 2020
Approved By	A. Hallam
Date	23 December 2020

AQUIND INTERCONNECTOR DCO

POST HEARING NOTES

DEADLINE 6 – 23 DECEMBER 2020

1. INTRODUCTION

1.1 On 14 November 2019 AQUIND Limited (the '**Applicant**') submitted an application for the AQUIND Interconnector Order (the '**Order**') pursuant to section 37 of the Planning Act 2008 (as amended) (the '**Act**') to the Secretary of State ('**SoS**') (the '**Application**').

1.2 The Application was accepted by the Planning Inspectorate ('PINS') on 12 December 2019, with the examination of the Application commencing on 8 September 2020.

1.3 Hearings in relation to the Application were held on the weeks commencing 7th and 14th December.

1.4 This document which is submitted at Deadline 6 contains the Applicant's post-hearing notes requested by the Examining Authority ''**ExA**') at the following hearings:

1.4.1 Issue Specific Hearing 1 – Wednesday 9th December 2020

1.4.2 Compulsory Acquisition Hearing 1 – Thursday 10th December 2020

1.4.3 Compulsory Acquisition Hearing 2 – Friday 11th December 2020

1.4.4 Issue Specific Hearing 2 – Monday 14th December 2020

1.4.5 Issue Specific Hearing 3 – Tuesday 15th December 2020

2. ISSUE SPECIFIC HEARING 1 ('ISH1') – THE DRAFT DCO

2.1 Question 3.5 - Securing HDD Parameters

2.1.1 Further to the discussion at ISH1 the Applicant has further considered the Works Plans (REP5-005) and the requirements within the dDCO (REP5-008) to ensure that the locations beneath which HDD and Trenchless Installation Techniques is required to be undertaken and the areas within which the construction compounds required for this are clearly secured.

2.1.2 A revised version of the Works Plans are submitted at Deadline 6, which delineate areas within which HDD Compounds / Trenchless Installation Technique Compounds must be located.

2.1.3 Requirement 6(3) within the dDCO submitted at Deadline 6 has been updated to confirm that before the construction of a relevant phase of Work No.4 which includes a HDD or a Trenchless Installation Technique installation may be commenced, the spatial extent and layout of the relevant compound areas must be submitted to and approved in writing by the relevant planning authority. It is also confirmed that any such compound must be located within the areas identified for such compounds on the Works Plans only.

2.1.4 It was discussed at ISH1 that the locations where HDD / Trenchless Installation Techniques must be undertaken are not defined in the dDCO and that it may be helpful to do so. The Applicant has considered this further, but it is considered the descriptions and the references to the relevant sheets of the Works Plans which identify where those techniques must be undertaken for the purpose of installing the Onshore Cables are sufficiently clear.

2.1.5 In this regard the Applicant notes that a materially similar approach to identifying the locations where trenchless installation techniques are to be used is included within the Norfolk Vanguard Offshore Wind Farm Order 2020 (see requirement 16(17) at Part 3 of Schedule 1). Accordingly, the Applicant has not sought to further define the locations within the dDCO or on the Works Plans.

2.1.6 It is the case that the layout and depth of installation for the Onshore HVDC Cables are required to be confirmed in relation to the relevant phase of Work No.4 before such works are commenced in accordance with Requirement 6(3)(a) and (b), and as such it is not considered necessary to further specify that these matters need to be confirmed where HDD or Trenchless Installation Techniques are to be used to install the cables (it is already provided for). With this in mind, the Applicant considers the necessary approvals required to be obtained to ensure the parameters for HDD are accorded with when such works are undertaken are secured, and the details approved by the relevant authorities will confirm the location of the cables when installed.

2.1.7 In addition, a new section 6.4 has been included within the updated Design and Access Statement to be submitted at Deadline 6 which sets out design principles for the Onshore Cable Corridor, and which in certain respects relates to the works to be undertaken utilising HDD or Trenchless Installation Techniques. It is confirmed in updates to Requirement 6(3) of the dDCO that it will be necessary for the undertaker to confirm how the details submitted for approval for Work No.4 accord with the design principles for the Onshore Cable Corridor.

2.1.8 A further point which was discussed with regard to HDD at ISH1, particularly in relation to the Allotments but also more generally, was the zone of protection required in connection with the HDD ducts and the area of land that is affected by this, with a view to understanding what may and not be built on the land above where the Onshore HVDC Cables have been installed by HDD or Trenchless Installation Techniques.

2.1.9 The Applicant has consulted on this matter with the specialist HDD contractor who has confirmed the preliminary design depths for each HDD to be undertaken,

the position in relation to the zone of protection, and in relation to the extent of the restriction to be applied in relation to building over the Onshore HVDC Cables.

2.1.10 The position with regard to the indicative depth of installation for each HDD / Trenchless Installation Technique Crossing is as follows:

(A) in respect of the HDD which is to be undertaken at Denmead Meadows (HDD-5), the length of the crossing is approximately 500m, with the maximum depth of cover below ground being approximately 9m bgl;

(B) in respect of the HDD which is to be undertaken beneath Langstone Harbour (HDD-3), the length of the crossing is approximately 1480m, with the maximum depth of cover below ground being approximately 12m bgl;

(C) in respect of the HDD beneath the sea defences at Milton Common (HDD-6), the length of the crossing is approximately 65m, with the maximum depth of cover below ground being approximately 4m bgl;

(D) in respect of the HDD beneath the Eastney and Milton Allotments (HDD-2), the length of the crossing is approximately 420m, with the maximum depth of cover below ground being approximately 11m bgl; and

(E) in respect of the Micro Tunnel beneath the Railway Crossing (HDD-4), the length of the crossing is approximately 90m, with the maximum depth of cover below ground being approximately 4m bgl.

2.1.11 With regard to the applicable 'zone of protection' in relation to the Onshore HVDC Cables installed by HDD and the restrictions which apply in this regard, in accordance with the Health and Safety Executives guidance doc HSG47 - Avoiding danger from underground services[1] - it is not permissible to build over electrical underground services in the UK. As such, the restrictions to be acquired in respect of the Onshore HVDC Cables will apply to the surface of the land beneath which the Onshore HVDC Cables are located.

2.1.12 By exception the Applicant has acknowledged the unique circumstances which do however exist at the Eastney and Milton Allotments where persons may wish to erect minor structures with no foundations, and that as these pose no risk to the Onshore HVDC Cables the status quo in respect of that land should also not be affected and the restriction applied to avoid this. For this reason, the minimum depth beneath which the restriction may be imposed in relation to the Proposed Development beneath plot 10-14, as identified in the Book of Reference, is to remain as 2.5m bgl. It is confirmed this approach is not in conflict with the Health and Safety Executives guidance doc HSG47 - Avoiding danger from underground services.

2.1.13 More generally, with regard to the horizontal width of the restriction, the zone of protection is a horizontal distance of 2 metres running parallel to the outer edge of the ducts on both sides to form a 'no dig' zone. The size of the 'no dig' zone, or rather it's width, is dictated by the spacing and therefore overall width of the ducts when installed, with the bore spacing to be adjusted to take into consideration thermal properties and behaviour of the buried cables at the depth of installation. As explained above, the spacing and depth of the bore will be confirmed at detailed design stage. It is this information which then informs the extent of the restriction which is to apply.

2.1.14 It was discussed at ISH1 that the Applicant may seek to include further information in the Book of Reference in relation to the plots beneath which the cables are to be installed by HDD / Trenchless Installation Techniques and the strata in relation to which the restrictions will apply. Taking into account the position explained above that the restriction is to apply to the surface in compliance with the HSEs guidance doc HSG47, the Applicant has not sought to

[1] https://www.hse.gov.uk/pubns/priced/hsg47.pdf

include such further information within the Book of Reference submitted at Deadline 6.

2.1.15 It should be noted that the HDD / Trenchless Installation Techniques are proposed to be undertaken to avoid sensitive areas, such as the Langstone Harbour Channel, the Denmead Meadows SINC and to route beneath an active railway line. As such, it is not considered that this land would be likely to be developed in the future and therefore whilst the restriction will apply to the surface, it will not alter the status quo in relation to those areas.

2.2 **Question 3.12 - Articles 10, 11 and 41 – Explanation of extent of any differences between relevant articles of dDCO and Southampton to London Pipeline Order 2020 (the 'SLP Order')**

2.2.1 Article 10 of the dDCO and the SLP Order both provide powers to alter the layout etc. of streets. Within the SLP DCO paragraph (1) of Article 10 refers to a Schedule to the SLP Order which details certain specified works which may be carried out in the streets listed therein without the need to obtain any consent. The dDCO does not contain a paragraph and/or schedule to this effect.

2.2.2 Other than the above difference, there are only very slight differences between Article 10 of the dDCO and the SLP Order, which are as follows:

(A) The dDCO at Article 10(1)(h) states that the undertaker may "*carry out works necessary to alter or provide facilities for the management and protection of pedestrians*". The SLP Order contains the same power at Article 10(2)(h), but the word "*execute*" is used in place of the words "*carry out*". This a semantic difference and it is not considered any amendment is required to align this wording.

(B) The period after which consent is deemed to be granted in respect of the undertaking of works pursuant to the powers provided by Article 10 where the street authority fails to notify the undertaker of their decision is 20 working days within the dDCO (or otherwise 28 days). The period for deemed consent contained in the SLP Order is 42 days. There is therefore a 14 day difference between the timeframes.

(C) It is noted that the 42 day timeframe used is common across the SLP Order, including in relation to the discharge of requirements. The Applicant is also aware of comments made during ISH1 that it would preferable for common timescales to be included across the dDCO. It is confirmed the dDCO has therefore been updated at Deadline 6 to refer to 42 days throughout.

2.2.3 Article 11 of the dDCO and the SLP Order both provide powers in relation to the undertaking of street works, which includes the deeming of a statutory right for the purposes of section 48(3) and 51(1) of the New Roads and Street Works Act 1991.

2.2.4 Article 11(1) of both dDCO and the SLP Order provide the undertaker with the power to enter on so much of the streets within the Order limits and to undertake without the consent of the street authority various activities. The activities which may be undertaken are the same, save that the dDCO does not provide that the undertaker may remove or use all earth and materials in or under the street. It is not considered necessary to include this in the dDCO. A further variance is that Article 11(1) of the SLP Order applies to the streets specified in column (1) of Schedule 4 to that Order, whereas the power in the dDCO applies to all streets within the Order limits. Given the nature of the works to be authorised by the dDCO, it is not considered necessary to list all streets within the Order limits in a Schedule, nor is it considered this would add anything meaningful to the dDCO which is not already understood.

2.2.5 Article 11(2) of the dDCO provides the power for the undertake to enter onto so much of any other street whether or not within the Order limits for the purpose of undertaking street works subject to obtaining the consent of the street authority. Whilst in the SLP Order the same provisions are split across Article 11(2) and (3), the effect of those provisions is the same as Article 11(2) to the dDCO.

2.2.6 Article 11(3) of the dDCO and 11(4) of the SLP Order provide the timescale within which an application for consent will be deemed to be approved where the street authority fails to notify the undertaker of its decision. In the SLP Order this period is 42 days. In the dDCO this period is 20 working days, so 14 days shorter. It is however confirmed the timescales in the dDCO are to be amended to be consistent across the dDCO, to 42 days, at Deadline 6.

2.2.7 Article 11(4) of the dDCO and 11(5) of the SLP Order provide the statutory authority to undertake street works, and are identical to one another.

2.2.8 Article 11(5) of the dDCO and 11(6) of the SLP Order provide clarifications in relation to the use of the term “apparatus” and its application to the authorised development. Whilst these paragraphs differ being specific to the authorised development to be approved by each order, they have the same effect as one another.

2.2.9 Article 41 of the dDCO and 42 of the SLP Order provide powers for the undertaker to fell or lop trees and remove hedgerows.

2.2.10 Whilst Article 42(1) of the SLP Order denotes a wider range of specific activities that may be undertaken in relation to trees and shrubs, the effect is the same as Article 41 of the dDCO. This includes the ability to undertake activities in relation to trees which overhang the Order limits. For clarity Article 41 of the dDCO will be revised to align with the SLP Order, with the same activities potentially being required to be undertaken.

2.2.11 Article 42(2) of the SLP Order, which relates to the undertaker not doing any unnecessary damage to any tree or shrub or hedgerow, is wider than Article 41(2) of the dDCO, which does not apply the provision to hedgerows. For completeness Article 41(2) to the dDCO will be updated to apply to hedgerows also.

2.2.12 Save for the order in which the remaining paragraphs of the articles are presented, both articles are near identical to one another and of the same effect.

2.3 **Question 3.12 – Explanation of position in relation to the removal of trees and the need to enter into agreements pursuant to Section 278 of the Highways Act 1980 to facilitate such removal**

2.3.1 Subsequent to ISH1 the Applicant has discussed this matter with Hampshire County Council (‘**HCC**’). The Applicant has confirmed that it wishes to avoid the entering into of agreements in the future to authorise works where the relevant matters to be contained in any such agreement are already provided for by the Order.

2.3.2 With regard to trees, the Applicant has confirmed that it’s preference remains for the determination of whether trees are to be removed or not to be confirmed pursuant to the requirements of the dDCO, for the payment of any CAVAT calculated compensation to be secured through a Section 106 Agreement with HCC, and for the works to remove such trees to be authorised through Article 41.

2.3.3 The Applicant has acknowledged that HCC will need to be content with the requirements in this regard and with the relevant planning obligation, though provided those matters are satisfied it is considered unnecessary for additional agreements to be required to be entered into in relation to the removal of street trees.

2.3.4 The Applicant has also highlighted further to HCC identifying that they may wish to undertake such works on behalf of the Applicant, that an agreement may be entered into pursuant to Article 15 of the dDCO to provide for this. However, the Applicant is not willing for it to be required that HCC undertake such works, as HCC is a third party beyond the control of the Applicant and it is not therefore ensured the works will be undertaken within the timescales required by the Applicant.

2.3.5 Whilst this position has not been discussed further with Portsmouth City Council ('**PCC**'), the Applicant confirms its preference for the same approach to apply across both authorities (though noting replacement of trees may be provided in Portsmouth whereas they will not in the administrative area of HCC due to a variance in policy).

2.3.6 The Applicant was also requested to confirm in what circumstances it may need to carry out works to trees which are not within but are overhanging the Order limits pursuant to the powers provided for by Article 41(1) of the dDCO. In this respect it is confirmed that this would be where the roots of the tree extend into the Order limits and it is necessary to cut the roots back or remove a tree to construct the authorised development.

2.4 **Question 3.13 – timescales for consent to undertake works on the highway on highways not within the Order limits**

2.4.1 The Applicant has further considered the position and the comments of PCC who wished to see the timescales for the approval of works on highways not within the Order limits and the discharge of requirements aligned, and the request of the ExA to review the SLP Order and confirm if the same 42 timescale may be included.

2.4.2 The Applicant confirms that subsequent to ISH1 the timescales included have been amended in the dDCO to align with the 42 days provided for in the SLP Order.

2.5 **Question 3.17 – Request for confirmation of the indicative construction widths required for the installation of ducts via trenching on agricultural and highway land**

2.5.1 **Appendix 1 - Cross-section of the typical agricultural land construction corridor (document reference 7.9.22.1)** - to this note shows the indicative typical construction widths required for the installation of ducts via trenching on agricultural land. The total width of the construction corridor required in agricultural land is 23m. This is required for storage of topsoil and sub soil, a haul road along the length of the construction corridor and includes an 11m width for the installation of both cable circuits with a separation distance of 5m between them.

2.5.2 **Appendix 2** - **Cross-section of the typical highway land construction corridor (document reference 7.9.22.2)** - to this note shows the indicative typical construction widths required for the installation of the ducts for a single cable circuit via trenching on highway land. The total width of the construction corridor required in highway land is 5m. This is required for the construction vehicle access and includes safety distances for public spaces. The separation distance between cable circuits installed in the highway would typically be 5m to maintain thermal independence. To minimise disruption, it is anticipated that each cable circuit will be installed separately.

2.6 **Question 3.19 – Request for confirmation of the indicative permanent easement width required for the operation and maintenance of the cables within the ducts where installed via trenching on agricultural and highway land**

2.6.1 The permanent easement required for the Onshore HVDC Cables where they are laid in agricultural land is shown on **Appendix 1** to this note and is 11m in width

based on the typical installation dimensions. This provides for the easement to extend to 2m either side of the outside edge of the trenches for the individual cable circuits.

2.6.2 With regard to the easement required where the cables are installed in highway land, because the cables are to be installed pursuant to statutory authority in accordance with Article 11 of the DCO and in accordance with the New Roads and Street Works Act 1991, it will not be necessary, and furthermore will not be permissible, to acquire an easement over highway land. However, for in the rare circumstances that the cables are buried at a depth which is below the vertical plane of the highway it is confirmed the restriction to be imposed would extend to 2m either side of the cable circuit trench.

2.6.3 The permanent easement to be acquired (where necessary, noting the comments above regarding the position in respect of highway land) will be adequate to allow for the operation and maintenance of the cables, with any replacement of the cables to be undertaken by removing a cable from the duct via the joint bay in which it is jointed. As such, it is not anticipated temporary powers of maintenance will need to be relied upon over a wider area in connection with the maintenance of the cables.

2.6.4 It is however necessary for the powers provided by Article 32 to be included in the dDCO for in connection with any replacement planting to be undertaken where this is provided in connection with the removal of vegetation along the Onshore Cable Route, as is required to be undertaken in accordance with requirement 8(2) of Schedule 2 to the dDCO.

2.6.5 It is not anticipated the powers provided by Article 32 to the dDCO will need to be relied upon more widely than set out above.

2.7 Question 3.24 – Allotments

2.7.1 Further to the comments of the ExA in relation to the wording included in the Book of Reference regarding the depth at which the New Connection Works Rights apply to Plot 10-14, the Applicant has removed the word ‘circa’ from the Book of Reference to confirm the restriction will not apply above 2.5m bgl.

2.7.2 The ExA also requested the Applicant to further consider whether sub-class (h) of the New Connection Works Rights may be expressed so as to not limit the placement of buildings that do not go below 2.5m in relation to Plot 10-14. For ease of reference New Connection Works Rights sub-class (h) provides as follows:

(A) “*restrictions on constructing and erecting buildings, works or structures, excavation, altering ground cover or soil levels, planting or growing trees or shrubs or carrying out operations or actions which may obstruct, interrupt, or interfere with the exercise of the rights or damage the Proposed Development*”

2.7.3 It is important to note that the general purpose of New Connection Works Rights (h) is to prevent buildings and vegetation being placed over the authorised development. For example, where open trenching has been used as the method of installation, it is necessary for the restriction to apply to the necessary width of the surface above this. As such, it is not the case that New Connection Works Rights (h) can be amended more generally for the purposes of clarity at Plot 10-14 (and other plots beneath which HDD has been used as the method to install the cables) without having an adverse knock-on effect for the remainder of the Onshore Cable Route.

2.7.4 With this in mind, the Applicant considers the most appropriate approach for clarity is to include a further sub-class to New Connection Rights which is more specific to how the restriction will apply to the surface of plots beneath which the cables have been installed by HDD.

2.7.5 The following additional sub-class of rights and restrictions is therefore proposed and is now included in the Book of Reference in relation to the relevant plots (with the additional wording shown underlined):

(A) "*restrictions on constructing and erecting buildings, works or structures, excavation, altering ground cover or soil levels, planting or growing trees or shrubs or carrying out operations or actions <u>in so far as such works extend into the strata of land over which the restriction applies and</u> which may obstruct, interrupt, or interfere with the exercise of the rights or damage the Proposed Development*"

2.7.6 It is considered referring to the strata of land over which the restriction applies is appropriate, as in relation to all of those relevant plots to which this sub-class of rights applies as the depth at which the rights may be acquired is clearly restricted to a minimum depth bgl. No such rights or restrictions may be acquired above this minimum depth.

2.7.7 A query was raised in relation to the potential application of Article 30(1)(a)(ii) to the land referred to in Article 30(1)(a)(i), with the two provisions proposed to be exclusive in relation to one another. The Applicant confirms that Article 30(1)(a)(ii) to the dDCO has been amended to refer to "*any <u>other</u> Order land…*" to confirm the exclusivity of the provisions.

2.7.8 Further to comments made at the Open Floor Hearings in relation to the growing season at the Eastney and Milton Allotments, it was queried whether the Applicant would be able to accommodate a seasonal restriction on when works may be undertaken beneath the Allotments, which would restrict works between April to August.

2.7.9 The potential for this seasonal restriction to be accommodated has been discussed with the specialist HDD contractor. This has confirmed that the restriction will not be able to be accommodated, as doing so would adversely impact the undertaking of the works for the following reasons:

(A) whilst the undertaking of HDD is not restricted seasonally (i.e. it can be undertaken at any time of year) traditional best practice concepts apply, an example of which is that it is preferable to undertake works when there is more natural light as this generally increases production rates.

(B) Less notifiable events (accidents including both Health and Safety and Environmental) occur during the summer month in the winter months, which is predominantly as a result of climate variations.

(C) Production rates are also improved by better weather conditions, meaning it is often preferable to seek to undertake such works during summer months.

2.7.10 Further, the rationale for imposing a seasonal restriction would be because of a risk of damage during the growing season, however for the reasons explained at ISH1 the risk of bentonite break out occurring when the HDD is undertaken beneath the Eastney and Milton Allotments has been confirmed to be small to negligible.

2.7.11 The reason for this risk allocation, again as explained at ISH1, are as follows:

(A) the preliminary design of the directional drills has been conducted to identify suitable depths and lengths of the crossings using a mixture of desk top study's and onsite surveys;

(B) through this preliminary design process, routes which would have posed a higher risk of bentonite break out have been eliminated; and

(C) where weaker un-cohesive layers are present, these will be cased through so as to prevent a breakout of bentonite during the initial shallow stages of the drill.

2.7.12 Further, as was explained during CAH1 and is discussed further below, the drilling fluids which are to be used are constructed of naturally occurring bentonite. The products give rise to no health and safety implications as the drilling products (Bentonite) are listed on the British Governments CEFAS (Centre for Environmental Fisheries and Aquatic Science) website and PLONOR (Pose Little Or No Risk) list[2].

2.7.13 Accordingly, in the very rare instances where any break out does occur, there will not be any lasting damage as a consequence of bentonite posing little or no risk.

2.8 **Question 3.34 – Trees**

2.8.1 Impacts on all trees within the Order Limits have been assessed in accordance with British Standard BS5837:2012. Appendix 16.3 (Arboricultural Report) of the ES (APP-411) describes the baseline arboricultural information and assesses the potential direct and indirect impacts of the worst-case scenario with regards to the Proposed Development.

2.8.2 Appendix 10 to the First Written Question Responses - Tree Survey Schedule and Constraints Plans (REP3-007), provides an update to this baseline data, containing the results following a review of trees subject to TPOs within the Order Limits. This exercise was undertaken to refine the trees identified as being at risk and those to be retained following submission.

2.8.3 The Applicant will seek to avoid all impacts on trees where possible, as identified within sections 5.3.4 and 6.2.2 of the Onshore Outline CEMP (REP5-019,) and requirement 15 of the dDCO (REP5-008). Where this is not possible, all pruning and felling works will be specified by a suitably trained and experienced Arboriculture consultant and will be carried out by a suitably trained and experienced arboriculture contractor.

2.9 **Question 3.4 – What changes would be needed to dDCO to remove Fibre Optic Cable Infrastructure and the capacity split between essential operational fibres and commercial telecommunications use fibres**

2.9.1 Where the commercial use of the spare capacity in the fibre optic cables is not consented, the Telecommunications Buildings will not be required. Two optical regeneration stations would still be required, for the reasons discussed further below, but these would be of a smaller scale to those required where the commercial telecommunications use of the spare capacity in the fibre optic cables is properly determined to be associated development.

2.9.2 To remove the ability to use the fibre optic cables for commercial purposes and the infrastructure associated with that purpose the following amendments to the dDCO would be required:

(A) the words "*and for commercial telecommunications*" would need to be removed from the definitions of "onshore HVDC cables" and "marine HVDC cables" as those terms are defined in Article 2 to the dDCO;

(B) the defined term "telecommunications building" at Article 2 would need to be deleted;

(C) the definition of "undertaking" at Article would need to amended to remove the words "*and provision of telecommunications services*";

(D) Article 7(6)(c) would need to be deleted;

(E) Work No.2 (u) "*up to 2 telecommunications buildings with a security perimeter fence including a security gate and in-between sterile zone and parking for up to 2 vehicles at any one time and associated fibre optic*

[2] • https://www.cefas.co.uk/data-and-publications/ocns/downloads-and-useful-links/plonor-list/ - the list is alphabetical, please scroll down the page to 'B' for bentonite

data transmission cables" would need to be removed from Schedule 1 to the dDCO;

(F) the rows of Table WN2 at requirement 5 at Schedule 2 to the dDCO which relate to the telecommunications buildings, telecommunications building compound and the telecommunications buildings security perimeter fence would need to be deleted;

(G) the words "*and in accordance with the maximum dimensions in that table shown for the buildings and compound"* and Table WN5 would need to be deleted from Requirement 5(3) at Schedule 2 to the dDCO;

(H) at requirement 6(4) the words "*confirming how those details accord with the design principles for the optical regeneration stations"* would need to be deleted and replaced with "*confirming how those details provide for an optical regeneration stations of a scale which is necessary for the operation of the authorised development and how those details accord with the design principles for the optical regeneration stations*";

(I) at requirement 6(9) the words "*, the telecommunications buildings*" would need to be deleted in the three instances where this appears; and

(J) the words "*and commercial telecommunications uses with*" would need to be deleted and replaced with "*for*" at the definition of "marine HVDC cables" at Part 1 of the Deemed Marine Licence at Schedule 15 to the dDCO.

2.9.3 With regard to any implications for the design of the Converter Station where the commercial use is not permitted and the Telecommunications Buildings removed, each pair of power cables has a dedicated FOC, which contains cores which are essential to the operation of the interconnector and cores which are 'spare' and which are proposed to be used for commercial telecommunications purposes. The essential cores are terminated within the control building in the Converter Station site. This situation would remain unchanged in respect of the spare cores with those also terminating at the control building. Accordingly, there would be no change to the control building design or dimensions.

2.9.4 The ORS are required to boost the optical signal strength due to the distance of approximately 250km between the two converter stations. Without sufficient signal boosting equipment reliable communication between the two Converter Stations necessary for their continued safe operation would be put at risk. Accordingly, the ORS are required for essential communication for the Project, in addition to providing signal boosting for the spare fibre which are proposed to be used for commercial telecommunications purposes.

2.9.5 If the use of the spare fibres for commercial telecommunications purposes is not permitted by the DCO, the ORS would nonetheless still be required, but on a smaller scale to house the facilities required for the fibres used for essential communication purposes only.

2.9.6 With regard to the capacity split between the glass fibres used for operation of the interconnector and those used for commercial telecommunications purposes, it is anticipated that the FOC to be installed with each pair of DC cables will contain sixteen (16) bundles of fibres, with each bundle containing twelve (12) fibres. Three (3) of these bundles are required for the essential operation of the interconnector and thirteen (13) bundles are available for commercial use. Thus the capacity split is 20% for essential use in connection with the safe operation of the Project and 80% for commercial telecommunications purposes.

2.9.7 As explained in the Statement in relation to FOC (REP1-127), to withstand the various physical impacts which the fibre optic cables are likely to be subject to associated with transportation, installation and operation in the marine and underground environment and protect the glass fibres located within it, the fibre

optic cables are required to be of an adequate outer diameter. The outer diameter must be of sufficient size to withstand the impacts to which it is likely to be subject and the use of standard size cable components for this purpose mean that the size of the cable itself would not change were the number of glass fibres within it was reduced from 192 to a lesser multiple.

3. COMPULSORY ACQUISITION HEARING 1 ('CAH1')

3.1 Question 4.3 – note of additional matters covered in addition to the response in the Applicant's transcript statement

3.1.1 Why Plot 1-32 is required for the Proposed Development

3.1.2 Plot 1-32, as shown on the Land Plans (REP5-003), is located at the Converter Station Area and forms part of the area where Work No.2, the work to construct the Converter Station is to be located. In addition, parts of Plot 1-32 are to be used for a temporary period during the construction of the Proposed Development as Work No.3 , being the temporary work area associated with Work No1, Work No.2 and Work No.4.

3.1.3 The ExA have sought confirmation of the works which are to be located within Plot 1-32, and why it is necessary for those to be located on Plot 1-32, so as to clearly understand why Plot 1-32 is required for the Proposed Development in connection with the request by the Applicant for powers to compulsorily acquire this land.

3.1.4 As can be seen on sheet 2 of 3 of the Indicative Converter Station Area Layout Plans (REP1-018), it is proposed that Plot 1-32 will accommodate the following elements of permanent infrastructure:

(A) part of the footprint of the Converter Station Compound;

(B) part of the permanent Access Road, which is to be used during construction and is required during operation;

(C) drainage measures including two attenuation ponds, one of which is to be immediately to the south of the Converter Station Compound and one of which is located within the south-west corner of Plot 1-32, to the south of the Access Road;

(D) the Telecommunications Buildings Compound, and the Telecommunications Buildings located therein;

(E) various elements of landscaping and ecological enhancements which are to be delivered in connection with the Converter Station and the Access Road (which can be seen on the Indicative Landscape Mitigation Plan Option B(ii) (REP5-032)).

3.1.5 It is also relevant to note that, as is identified on the Indicative Converter Station Area Layout Plans (REP1-018) and the Indicative Landscape Mitigation Plan Option B(ii) (REP5-032), plot 1-32 is traversed by overhead electricity lines as they approach Lovedean Substation, which sits directly to the east of Plot 1-32, and there is a pylon for the overhead line located approximately in the middle of the plot.

3.1.6 Taking each of the above elements in turn, paragraph 4.24 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034) explains why the land is required for the Converter Station. These matters are not repeated in this post-hearing note, and it is understood that the ExA are not seeking further information for why the land on which the Converter Station is to be located is required for the Proposed Development.

3.1.7 The need for the Access Road, which is in part located on Plot 1-32, is explained at paragraph 4.27 of the Applicant's Transcript of Oral Submissions for

Compulsory Acquisition Hearing 1 (REP5-034). As identified at paragraph 4.27.1 of that document, it is necessary for an access route to be provided to the Converter Station both in connection with construction and its continued operation thereafter.

3.1.8 Whilst the Converter Station will be unmanned during normal operation, the Applicant requires a permanent access road of suitable construction and width during the operational life of the converter station to allow for the delivery of equipment in the rare event of failure, the largest item of equipment being the transformers. As is explained at paragraph 4.27.5 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034), transformers are typically 5m length x 3m width x 4m height, and as is explained at paragraph 5.2.3.41 of the Design and Access Statement (REP1-031) weigh approximately 300 tonnes. As such, it is necessary for there to be a permanent heavy-duty access road from the public highway to the Converter Station to allow for their delivery, and to allow for vehicles involved with their replacement (both the act of replacing and the act of delivery a new spare in the rare event of failure).

3.1.9 The road specification is designed to cater for wheel loads from Abnormal Indivisible Load vehicles (AILs), which are required in connection with the delivery of transformers to the Converter Station, with one spare transformer to be kept on the site at any one time. Further, the road width/alignment is to be designed to allow for two way access for normal road vehicles to/from the site and unrestricted access with appropriate swept paths for AIL transportation (one way). It is also important to note that it is necessary for permanent access controlled by the operator to be available at all times in the event of an emergency, for example to allow for emergency services to attend the Converter Station in the unlikely event of an emergency.

3.1.10 Whilst other options for the permanent access road have been considered, including utilising an access road through the existing Lovedean Substation, the alternatives considered have been discounted (see paragraph 4-27.2 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034) in this regard.

3.1.11 During CAH2 it was queried on behalf of the landowner of Plot 1-32 why an access road which utilises an existing access track which routes to the north of Stoneacre Copse, therefore avoiding the need for the Access Road to be located on Plot 1-32, could not be used for the permanent state. It has been confirmed to the landowner on several occasions that a permanent access road of suitable construction and width is required during the operational life of the converter station to allow for the delivery of equipment in the rare event of failure, the largest item of equipment being the transformers (typically weighting 300-350 tonnes). Both the initial installation of the transformers and any subsequent replacement would also require adequately sized cranes which, given the weight of the transformers, are also substantially sized vehicles.

3.1.12 Two attenuation ponds required in connection with the Converter Station and the Access Road are also proposed to be located on Plot 1-32, which form part of the wider Sustainable Urban Drainage System (SUDS) required to be provided to ensure the adequate draining of the Converter Station Area. The proposals for drainage are discussed at paragraph 4.29 of Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034).

3.1.13 The drainage solution for the Converter Station Area has been carefully designed to meet the operational requirements of the Converter Station Area, in close consultation with the Environment Agency and Portsmouth Water.

3.1.14 In addition to the two attenuation ponds, the location and function of which is explained at paragraphs 4.29.2 and 4.29.4 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034), a geocellular

soakaway is proposed to the south of the detention basin which is to be located immediately to the south of the Converter Station, in order to allow the infiltration of surface water to ground.

3.1.15 Infiltration swales to the north and east of the second more southerly attenuation pond are also to be provided within Plot 1-32, to convey run-off from the Access Road, with the design and layout being appropriate taking into account the location of the individual elements and the natural topography of the land.

3.1.16 As is explained at paragraph 4.29.6 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034), all of the drainage measures are necessary in connection with the Converter Station to ensure it is adequately drained, and the permanent acquisition of the land on which these permanent features are to be sited and maintained for the operational lifetime of the Converter Station is therefore required and appropriate.

3.1.17 Paragraph 4.30 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034) provides information in relation to the Telecommunications Buildings which are proposed to house equipment in connection with the commercial telecommunications use of the spare fibres within the fibre optic cables required for the operation of the Proposed Development, for which consent is sought as associated development in accordance with Section 115 of the Planning Act 2008.

3.1.18 The position regarding the need for the permanent acquisition of land for the Telecommunications Buildings is clearly explained within the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034), and those matters are not repeated in this post-hearing note. It should be noted however that were the Telecommunications Building omitted from the Proposed Development for any reason and therefore not required to be located on Plot 1-32, it is still necessary for the land on which it is located to be acquired so as to allow for the delivery and operation of the drainage measures discussed above and the delivery of the landscaping and ecological enhancements discussed below.

3.1.19 Landscape and ecological enhancements are also proposed to be provided at the Converter Station, with the landscaping required to visually screen the Converter Station in closer distance views and the ecological enhancements required to improve the ecological function of the Converter Station Area by providing new habitats and increasing biodiversity. The landscaping and ecological enhancements required to be provided in connection the Converter Station are explained at paragraph 4.30 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034).

3.1.20 With regard to the landscaping proposals and their location across Plot 1-32, it is important to understand that landscaping has been informed by and must adhere to several fixed existing and proposed offsets, which effectively set the parameters for the landscaping to be provided. These include:

(A) Overhead lines – 30 m exclusion from 400 KV overhead lines (taken from the outermost conductor) for all trees.

(B) Hedgerows (growth up to 2 m) – must be set back 5 m from security fence.

(C) Scrub (growth up to 4 m) – must set back 10 m from the security fence.

(D) Trees (up to 15 m height) –25.5 m standoff from security fence.

(E) Trees (up to 25 m in height) – 40.5 m standoff from security fence.

3.1.21 The offsets explained above are required for safety and security reasons, ensuring a clear line of sight along the security fence; that falling trees do not

damage the security fence; and that vegetation does not aid an intruder to climb the security fence.

3.1.22 Proposed planting has therefore been introduced on plot 1-32, as shown on the Indicative Landscape Mitigation Plan Option B(ii) (REP5-032), which complies with those constraints and which:

(A) creates a required partial visual screening function;

(B) improves landscape and biodiversity connectivity (for example by including links to Stoneacre Copse);

(C) strengthens the landscape features to be provided; and

(D) achieves a biodiversity net gain for priority habitats.

3.1.23 In terms of the specific planting which is to be located on Plot 1-32, the following is proposed:

(A) **New planting adjacent to Ancient woodland:** New planting in the form of woodland, scrub and scrub with scattered trees (allowed to regenerate naturally) has been introduced around the edge of Stoneacre Copse, extending, reinforcing and minimising fragmentation whilst addressing opportunities for natural regeneration. This seeks to address concerns over the need to improve connections to nationally important habitats as referred to at the Applicant's Response to Written Representations (4.23) (REP2-014) and it responds to LPA management / landscape strategy objectives in terms of landscape character and referred to in Appendix 15.4 of the ES (Landscape Character) (APP-402).

(B) **Woodland planting:** New woodland planting has been introduced where feasible in relation to the offsets to provide a partial screening cover, strengthen landscape features, improve biodiversity by increasing the area of this important habitat and break up the overall mass of the building from views to the south and south west.

(C) **Scrub planting**: Scrub planting has been introduced where there are offset constraints and to improve connectivity. This type of habitat functions as a foraging area, refuge and safe breeding space for a protected and notable species. Management of scrub planting will take place to restrict growth and beyond constraints allowed to regenerate.

(D) **Hedgerows**: New hedgerow planting alongside the Access Road serve to improve connectivity and provide partial screening from angles where hedgerow trees can be introduced.

(E) **Grassland**: Calcareous grassland will be introduced to improve ecological diversity where planting in the form of trees and scrub cannot be introduced. Such grassland raises the ecological value of the current grasslands which are species poor, their importance being limited by agricultural improvement.

3.1.24 Taking into account the aims of providing the woodland, scrub and hedgerows and new calcareous grassland, in addition to the new grassland, and the ecological benefits which this provides, it is necessary to ensure those areas are adequately maintained and otherwise not disturbed so as to fulfil their landscaping function and ensure the biodiversity benefits of them in this location are fully realised.

3.1.25 In addition to being required in connection with all of the elements of the Proposed Development clearly explained above, it is also necessary for the Applicant to have exclusive possession of the area around the Converter Station and Telecommunications Buildings so as to deter potential trespassers who may seek to intrude into the Converter Station/interfere with the Telecommunications Buildings.

3.1.26 By having control over these areas, the Applicant is able to control who can and cannot access those areas and thus more adequately deter any potential for interference with the apparatus, which is entirely appropriate and necessary taking into account the purpose of the infrastructure and the benefits its continued safe operation will provide.

3.1.27 **Why Plot 1-83 is required for the Proposed Development and explanation of the surveys undertaken to date**

3.1.28 As explained at paragraph 4.48.3 of the Applicant's Transcript of Oral Submissions for Compulsory Acquisition Hearing 1 (REP5-034), Plot 1-83 is approximately 50m wide at the narrowest point at its northern end, and approximately 356m wide at its widest point at its southern end. The extended order width in this location is required to ensure that karstic features and archaeological features may be navigated should they be encountered.

3.1.29 Geophysical magnetometer survey, carried out for the purposes of identifying potential archaeological features was undertaken within Sections 1-3 and 6-7 of the Order Limits, including Plot 1-83. The survey identified a number of sparsely distributed possible pit-alignments, approximately 3-5m in diameter of likely low significance.

3.1.30 Based on the nature and likely low significance of these features they are not anticipated to require preservation *in situ* and therefore require avoidance by the cable route or working width. In the highly unlikely event that such remains are uncovered, design changes, principally the realignment of the Onshore Cable Route, could be considered. Archaeological works (including trial trench survey) will be carried out in this location before the works to construct the Onshore Cable Route are undertaken.

3.1.31 Further to the archaeological surveys undertaken in respect of Plot 1-83, an Envirocheck professional report was purchased for the entire route, and this identified areas of potential dissolutions features and mining pits for chalk as a single category.

3.1.32 To understand karstic dissolution features in the area further the Peter Brett Associates dataset for karstic features was purchased for route section 1, 2 and 3; which was advised by Portsmouth Water. Following this a site walkover was completed by WSP to map geomorphological features (e.g. surface depressions) which potentially indicate karstic features presence.

3.1.33 A geophysical karstic feature (resistivity and conductivity) survey was completed at the two potential converter station (West and South) locations at the time. Three features were identified, one at converter station south and two at converter station west. Cone penetration testing with piezometer tips were completed in a grid pattern for the three karstic features identified by the geophysical survey, this was to determine the size, thickness, infilling nature and geotechnical properties of the feature.

3.1.34 ES Chapter 19 Groundwater (APP-134), ES Addendum (REP1-139) and the Supplementary Karstic Report (REP1-156) provides the baseline and assessment of the potential for karstic dissolution features in Plot 1-83 (Section 2 of the Onshore Cable Corridor). These assessments suggest a low likelihood of encountering such features, with no visual evidence identified on site and no recorded features within the Peter Brett Associates database. However, the presence of unidentified / recorded karstic dissolution features cannot be entirely discounted. The potential contamination transport pathways that could be created if karstic dissolution features are encountered have been raised as a particular concern by Portsmouth Water and the Environment Agency. Detailed descriptions of mitigation measures that will be implemented should karstic dissolution features be identified will be agreed with Portsmouth Water and the Environment Agency prior to construction at Plot 1-83, with a list of typical

measures are included within Section 6.4.3 of the Onshore Outline Construction Environmental Management Plan (REP5-019, Rev005).

3.1.35 Whilst the Applicant's preference is to utilise the shortest cable route possible in this area, the approach taken has been to retain sufficient land within this area noting the karstic, archaeological and geotechnical risks, to enable the Applicant route the cables around such features should they be encountered.

3.1.36 The Applicant has agreed heads of terms with the landowner in relation to Plot 1-83 and an Option Agreement is currently being prepared and is envisaged to be completed early in 2021. The Applicant has had very positive engagement with both the landowner and tenant and will continue to engage with both parties through detailed design to provide confirmation of the chosen design, noting the Applicant's preference will be the shortest route possible to minimise cable length and reduce impacts on farming activities.

3.1.37 **How the trenchless installation methods, their number and where they can be undertaken, are secured**

3.1.38 The ExA queried whether there is anything in the dDCO which would prevent the use of trenchless construction methods within the highway and whether the dDCO may need to be amended to ensure that it is clear trenchless installation cannot take place in the highway.

3.1.39 Work No.4 as included in Schedule 1 to the dDCO comprises the works to lay the onshore HVDC cables. Work No.4 (e) provides that Work no.4 includes 4 HDD crossings including entry/exit pits and associated temporary construction compounds. Work No.4 (f) is one trenchless installation technique crossing including an entry and exit pit and associated temporary construction compounds. The 4 HDD's and 1 trenchless installation technique are therefore the totality of the trenchless installations to be authorised. Accordingly, the dDCO if made would not authorise any additional trenchless installations.

3.1.40 Further, requirement 6(10) and (11) identify the locations where HDD and trenchless installation techniques must be used. As such, it would not be possible to utilise trenchless installation methods anywhere else in the Order limits to construct the authorised development.

3.1.41 Noting the above, it is not considered to be necessary for any additional confirmations to be provided to confirm trenchless methods cannot be used in other locations.

3.1.42 **Determining whether the cable is within or in land beneath the highway**

3.1.43 As explained at paragraph 2.6 of the Highway Subsoil Acquisition Position Statement (REP1-131), the 'Baird Principle' provides that statutory vesting of land in a highway authority confers ownership only of that slice of the land over which the highway ran, viewed in the vertical plane, as was necessary for its ordinary use, including its repair and maintenance.

3.1.44 Further, as is explained at paragraph 2.7 of the Highway Subsoil Acquisition Position Statement (REP1-131), the principle of the zone of ordinary use further and more fully identifies the slice of the vertical plane which constitutes the highway, being "*the surface of the road over which the public had highway rights, the subsoil immediately beneath it, to a depth sufficient to provide for its support and drainage, and a modest slice of the airspace above it sufficient to enable the public to use and enjoy it, and the responsible authority to maintain and repair it, and to supervise its safe operation*".

3.1.45 The Baird Principle and the zone of ordinary use are legal concepts which were most recently confirmed in the Supreme Court judgement in the case of London Borough of Southwark and another v Transport for London, *[2018] UKSC 63*.

3.1.46 Whilst both of those principles identify the legal concepts for determining the extent of the strata of land beneath the surface of the highway which form part of the highway, they do not definitively detail the land which is the highway. The land which is the highway is therefore a matter which is to be determined when looking at the particular circumstances of the highway in a relevant location.

3.1.47 In terms of whether the Proposed Development is located in the highway, or in land beneath and which does not form part of the highway, it is relevant that requirement 6(3)(b) of the dDCO (as updated and submitted at Deadline 6) requires the approval of the proposed depth of installation of the Onshore HVDC Cables before works to construct them are undertaken. Once approved the Onshore HVDC Cables must be carried out in accordance with the approved details.

3.1.48 It will be necessary once those details are approved for the Applicant to determine whether the Onshore HVDC Cables are within the highway or are beneath it, and it is expected this will be determined by having reference to the depth of installation (which if at the typical depth will be in the highway, but if a lower depth may not be) and the characteristics of the strata of land within which installation is undertaken. For example, where the Onshore HVDC Cables were located below all other utilities and drainage, it is likely that they are not then located in the highway but in land beneath this which is in private ownership.

3.1.49 **How it will be confirmed over which land within the limits of deviation rights are to be acquired**

3.1.50 As per updates made to the Book of Reference at Deadline 4 (REP4-003) it is confirmed that all land which is vested in the highway authority in that capacity is excluded from the Book of Reference and therefore no powers to acquire any rights over such land would be permitted by the DCO. This has therefore addressed any concerns that rights could be acquired over land vested in the highway authority.

3.1.51 Where it is considered that the land in which the Onshore HVDC Cables are located is land which is not highway, Article 23 will authorise the acquisition of the rights required over that land for the construction, operation and maintenance of that part of the Proposed Development. It will be for the Applicant to follow the necessary legal process to compulsorily acquire the rights and restrictions over the relevant land, by way of service of the relevant notices/execution of declarations, and these will confirm the land to which the compulsory acquisition relates (which as explained above may not include land which is highway).

3.1.52 Noting that the authorised development is clearly defined in Schedule 1 and that that this is the only development that may be constructed in accordance with the DCO, once an element has been built in accordance with the approved details, the position regarding the land over which rights may be acquired for this will be confirmed. Any remaining land (being such land as is within the limits of deviation provided by the Order limits but in relation to which rights are not required following detailed design) will not be authorised for compulsory acquisition of rights. This is because the acquisition of rights over such land will not be required for the authorised development and therefore the test of necessity provided for by Article 23 of the dDCO would not be satisfied. As such, that land is then in effect released from the Order limits.

3.1.53 Further, Article 22 within the dDCO (REP5-008) confirms the time limit for compulsory acquisition to be executed is 5 years from the date of the Order. Any and all land within the Order limits in relation to which the relevant notices have not been served/ declarations executed will not be authorised to be acquired after that date. Accordingly, at that time all such land is in effect released from the Order limits.

3.1.54 Taking all of the above into account, it is considered the position regarding what is lawfully permissible in relation to the compulsory acquisition of rights and restrictions over land beneath the highway is sufficiently clear, as is the position in relation to acquisition in the future and the release of land from the Order limits. It therefore not necessary for additional confirmation or processes to be incorporated in the dDCO in this regard, as the matters are already sufficiently addressed.

3.1.55 **Definition of permanent limits**

3.1.56 The definition of "permanent limits" contained at Article 2 of the dDCO has been amended in the dDCO to be submitted at Deadline 6 to "*means the limits of land for the purpose of article 20 (Compulsory acquisition of land) as shown shaded pink, blue, purple and green on the land plans;"*.

3.1.57 Article 20 of the dDCO is the principal power authorising the compulsory acquisition of so much of the Order land within the permanent limits and described in the book of reference and shown on the land plans as is required for the construction, operation or maintenance of the authorised development or to facilitate it, or as is incidental to it. Article 20 is, by virtue of paragraph (2), subject to Article 23.

3.1.58 Article 23 of the dDCO provides the undertaker with the power to acquire compulsorily the rights, and impose the restrictions, over so much of the Order land within the permanent limits described in the book of reference and shown on the land plans as is required for the construction, operation or maintenance of the authorised development or to facilitate it, or as is incidental to it, by creating them as well as by acquiring rights and benefits of restrictions already in existence.

3.1.59 Both powers provide for the compulsory acquisition of land and or rights in land within the permanent limits. The permanent limits therefore are the limits within the Order limits within which land (and rights in land) may be acquired, with both Articles 20 and 23 reflecting this.

3.1.60 Within the Order limits onshore there is also the land shaded yellow on the Land Plans (REP5-003), which is land of which only temporary possession may be taken. Accordingly, the land shaded yellow is expressly not referred to in the definition of permanent limits, as the land shaded yellow may not be compulsorily acquired, nor may rights in the land shaded yellow be acquired or restrictions imposed.

3.1.61 The Applicant has considered other amendments which could be made to the definition of permanent limits, for example to state this is the land which may be acquired and within which rights may be acquired and restrictions imposed, however when reading the definition with and in the context of Articles 20 and 23, together with the Land Plans (REP5-003) and the Book of Reference (REP5-014) the position is sufficiently clear, and legally sound.

3.1.62 The Applicant has also considered amending the term itself to something other than permanent limits, however these are the limits within which land and rights may be permanently acquired and therefore the term used is considered to be the most appropriate term which may be used.

3.2 Question 5.2 – Funding Information

3.2.1 The Applicant has considered whether it is in a position to disclose extracts from confidential reports to supplement the Funding Statement. It has determined that there is not a lawful basis on which financially sensitive documentation may be provided to the ExA where the non-disclosure of that financially sensitive information is protected by law. Accordingly, the Applicant has not provided the financially sensitive information referred to.

3.2.2 An update to the Funding Statement has been provided at Deadline 6, which incorporates information submitted during the course of the examination to date and in relation to regulatory matters discussed at CAH1.

3.3 **Question 7.1 – Indicative location of works and duration of possession of Special Category Land within the Order limits**

3.3.1 **Appendix 3 - Works and Durations at Special Category Land (document reference 7.9.22.3)** – to this note explains the anticipated duration of occupation for construction, including both cable circuits and the joint bays, on special category land within the Order limits. This also explains the anticipated areas of that land that is to be occupied during construction to facilitate the installation of the cable circuits and joints bays below ground.

3.3.2 With regard to the durations of reinstatement, this is subject to local conditions, however it is anticipated reinstatement to be effective will require a duration of 8 weeks for re-turfing and 10 weeks for re-seeding as detailed Section 4.1.2.2 of the Framework Management Plan for Recreational Impacts (REP4-026).

3.3.3 The permanent easement widths in connection with the Proposed Development on special category land will typically be those which, shown on **Appendix 1** to this note, being 11m in width based on the typical installation dimensions. This provides for the easement to extend to 2m either side of the outside edge of the trenches for the individual cable circuits.

3.3.4 With regard to the duration of activities where a cable sections needs to be replaced, which will be very rare given the cable systems to be installed are very reliable, such works be anticipated to last for a duration of 21 days working days, which is calculated based on the following:

(A) 7 days to excavate the joint bay

(B) 1 day for cable removal

(C) 3 days to prove ducts and install replacement cable

(D) 5 days to joint the cable

(E) 5 days for joint bay re-instatement.

3.4 **Question 7.2 – Explanation of the extent of risk of Bentonite break out at the Allotments and the related remedial and control measures**

3.4.1 The information provided above in relation to question 3.24 for ISH1 at paragraph 2.7 explains the reasons why the risk of bentonite break out occurring when the HDD is undertaken beneath the Eastney and Milton Allotments has been confirmed to be small to negligible.

3.4.2 The reason for this risk allocation are as follows:

(A) the preliminary design of the directional drills has been conducted to identify suitable depths and lengths of the crossings using a mixture of desk top study's and onsite surveys;

(B) through this preliminary design process, routes which would have posed a higher risk of bentonite break out have been eliminated; and

(C) where weaker un-cohesive layers are present, these will be cased through so as to prevent a breakout of bentonite during the initial shallow stages of the drill.

3.4.3 Further, as explained in the information provided in relation to question 3.24 for ISH1 at paragraph 2.7.9, a seasonal restriction in relation to the works to undertake the HDD beneath the Allotments is not considered to be necessary and it is therefore not proposed this is provided for.

3.4.4 A further point raised and discussed during CAH1 was the monitoring and mitigation measures that will be deployed in relation to the HDD works to monitor the drilling fluid and identify any loss of drilling fluid at the earliest opportunity, and therefore ensure that in the rare circumstances a break out of bentonite drilling fluid occurs this will be ameliorated.

3.4.5 Set out below is a summary of the measures that will be undertaken:

Mitigation Measure	Notes
Monitoring of drilling fluid returns and volumes to warn of inadequate hole cleaning	If drilling fluids are returning to the injection point. Immediate warning that there is a breakout, Stop drilling
Drilling fluid to be of sufficient viscosity and properties for the ground being drilled	Ensures that the cuttings are carried to surface and prevents blockages, Mud man to monitor rheology of muds
Real time downhole annular pressure monitoring to warn of over pressurising by drilling fluid	1st step during onsite works to prevent and minimise frac out and volumes. Keep pressures within hydro fracture calculations
Visual drilling fluid 'spotter'	Daily visual checks of the drilling route

3.4.6 A further point discussed at CAH1 in respect of the HDD beneath the Allotments was in respect of how, in the rare event of any break out of bentonite drilling fluid, any such break out of bentonite drilling fluid would be remediated.

3.4.7 in the rare event of any break out there are adequate remedial measures that can and will be actioned to remove the break out in the shortest time possible, ensuring there is no residual fluid on the land. Further, it is not anticipated that in those circumstances there would be any residual damage, as all of the bentonite can be removed from the frac out / break out point. Once removed the area can be raked over, using hand tools.

3.4.8 Visually it is not anticipated that there would be any significant signs of the event, other than footprints.

3.4.9 Lastly, and as explained also in the post hearing note relating question 3.24 for ISH1, the drilling fluids which are to be used are constructed of naturally occurring bentonite. We can be sure of the products safety as the drilling products (Bentonite) are listed on the British Governments CEFAS (Centre for Environmental Fisheries and Aquatic Science) website and PLONOR (Pose Little Or No Risk) list[3].

3.5 Question 7.4 – Joint Bays in the Allotments

3.5.1 The updates to the Works Plans submitted at Deadline 6 confirm that the HDD compounds in relation to the HDD beneath the Allotments will be outside of the Allotments, with the area across the Allotments being the zone of the drill.

3.5.2 The need to locate the HDD compounds within the areas identified on the Works Plans is secured by requirement 6(3)(d) within Schedule 2 to the updated dDCO submitted at Deadline 6.

[3] • https://www.cefas.co.uk/data-and-publications/ocns/downloads-and-useful-links/plonor-list/ - the list is alphabetical, please scroll down the page to 'B' for bentonite

3.5.3 As the Onshore HVDC Cable must be installed beneath the Allotments using HDD, as per requirement 6(1)(d), and further as no rights to undertake works on the surface of the Allotments are sought within the Book of Reference (REP5-014), it would not be permissible in accordance with the DCO for any joint bays to be installed within the Allotments.

3.6 **Explanation of the indicative width and lateral extent of permanent easement in relation to ducts installed by trenchless methods and the reversion of Order limits following construction**

3.6.1 The HDD profile is based on preliminary HDD design. The design will require to be finalised in conjunction with confirmation of all ground and geotechnical information, service constraints, duct specifications and full HDD design calculations.

3.6.2 Information regarding the profiles for each HDD is provided in this post-hearing note in relation to the securing of HDD parameters at paragraph 2.1, as is the position with regard to the restrictions that are required in respect of the surface of the land beneath which the HDD bores are located.

3.6.3 With regard to spacing between the bores, the HDD bores will typically be kept at least 5m vertically, horizontally, or a mixture of both apart. At the entry and exit points the separation distances will be reduced subject to detail design being conducted.

3.6.4 As is also explained at paragraph 2.1.12 above, the zone of protection is a horizontal distance of 2 metres running parallel to the outer edge of the ducts on both sides to form a ‘no dig’ zone. The size of the ‘no dig’ zone, or rather it’s width, is dictated by the spacing and therefore overall width of the ducts when installed, with the bore spacing to be adjusted to take into consideration thermal properties and behaviour of the buried cables at the depth of installation. The spacing and depth of the bore will be confirmed at detailed design stage. It is this information which then informs the extent of the restriction which is to apply.

3.6.5 With regard to what was discussed as the reversion, which is in essence the confirmation of the land within the limits of deviation which is not to be subject the acquisition of rights and restrictions, Article 23 will authorise the acquisition of the rights required over that land for the construction, operation and maintenance of that part of the Proposed Development.

3.6.6 It will be for the Applicant to follow the necessary legal process to compulsorily acquire the rights and restrictions over the relevant land, by way of service of the relevant notices/execution of declarations, and these will confirm the land to which they compulsory acquisition relates.

3.6.7 Noting that the Authorised Development is clearly defined in Schedule 1 and that this is the only development that may be constructed in accordance with the DCO, once an element has been built in accordance with the approved details (with the approval of details which the Onshore HVDC Cable, including all HDDs, being secured by requirement 6(3)), the position regarding the land over which rights may be acquired will be confirmed.

3.6.8 As such, any remaining land (being such land as is within the limits of deviation provided by the Order limits but in relation to which rights are not required following detailed design) will not be authorised for compulsory acquisition or rights. This is because the acquisition of rights over such land will not be required for the authorised development and therefore the test of necessity provided for by Article 23 of the dDCO would not be satisfied. As such, that land is then in effect released from the Order limits.

3.6.9 Further, Article 22 within the dDCO (REP5-008) confirms the time limit for compulsory acquisition to be executed is 5 years from the date of the Order. Any and all land within the Order limits in relation to which the relevant notices have

not been served/declarations executed will not be authorised to be acquired after that date. Accordingly, at that time all such land is in effect released from the Order limits.

3.6.10 Taking all of the above into account, it is considered the position regarding what is lawfully permissible in relation to the compulsory acquisition of rights and restrictions over the land identified in the Book of Reference (REP5-014) is sufficiently clear, as is the position in relation to acquisition in the future and the release of land from the Order limits. It therefore not considered to be necessary for additional confirmation or processes to be incorporated in the dDCO in this regard, as the matters are already sufficiently addressed.

3.7 Question 9.4 – Explanation of how ground conditions at Milton Common may require load spreading and how this may limit the installation of cable circuits along the same option

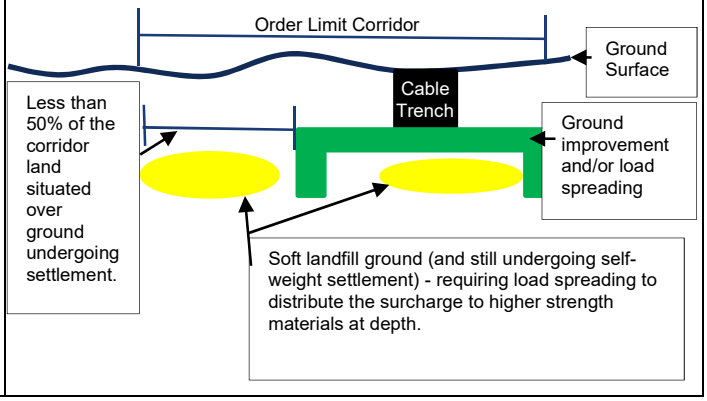
3.7.1 The ground at Milton Common has an undulating ground profile and landfill material appearing at surface frequently, indicating ground settlement is still occurring.

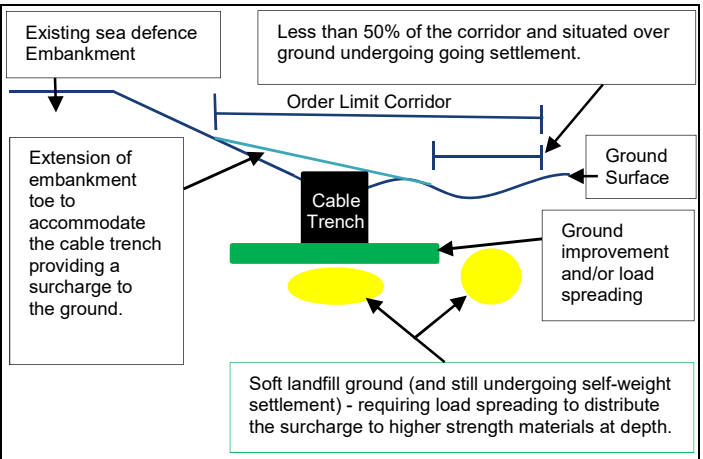
3.7.2 To control or mitigate this settlement the ground may require a ground improvement technique. If the bearing capacity of the ground is less than the surcharge from the loading, the load will require to be spread over an area to reduce the surcharge to the bearing capacity.

3.7.3 The load is spread by forming a subbase, or raft, across the required area. The area required may spread the load of one trench to more than half the available corridor, making it impossible to fit the second trench within the same corridor and requiring the cable array to be split utilising two order limit corridors.

3.7.4 There may be some locations where the cabling maybe required in close proximity to the base of the existing sea flood embankment, and this may need to be locally regraded to ensure stability of the toe.

3.7.5 Set out below is a diagrammatic explanation of how load spreading for a cable trench could be undertaken where this is required, including the load spread scenario where the cables are located in proximity to the base of the existing sea flood embankment.

Scenario Description	Scenario Sketch
<u>Crossing ground still experiencing settlement</u> The ground at Milton Common is potentially still experience settlement. This has been identified by the undulating ground profile and landfill material appearing at surface frequently. To control or mitigate this settlement ground improvement and/or load spreading could be required.	

<u>Tying into the existing flood defence embankment, where extension of the embankment is required (if applicable)</u> If surcharge loading due to embankment raising is predicted to cause instability or excessive settlements it may be required to spread the load over a greater area. There is the potential the area required to spread the load of one trench will take up more than half the corridor thus making it impossible to fit the second trench within the same corridor and requiring splitting the cable array utilising two order limit corridors.	

4. COMPULSORY ACQUISITION HEARING 2 ('CAH2')

4.1 Question 6.1 – Request for post hearing notes to explain discussions with the Carpenters, Sainsbury's and Portsmouth City Council

4.1.1 **Summary of discussions with the Carpenters**

4.1.2 In relation to the access road proposed across land owned by Geoffrey and Peter Carpenter, the landowner's representative proposed it would be possible for access for the Proposed Development to be taken via the farm track which runs between the two areas of Ancient Woodland located south-west of the Lovedean Substation, namely Stoneacre Copse and Crabden's Copse, rather than along the route proposed by the Applicant.

4.1.3 The most significant requirement in terms of vehicle/load size is for the Applicant to be able to bring transformers to the Converter Station site by road, using Abnormal Indivisible Loads (AILs). Both the initial installation of the transformers and any subsequent replacement would also require adequately sized cranes which, given the weight of the transformers (300-350 tonnes), are also substantially sized vehicles.

4.1.4 The turning radius in the area proposed by the landowner's representative would not be sufficient to get through this area without removing ancient woodland and would run under the existing overhead line configuration, which is at a lower level than the overhead line configuration further west where the access road is proposed to be located.

4.1.5 A note titled 'Summary of Ancient Woodland Protection' was sent to the landowner's agent on 30 November 2018, following a meeting which took place on 15 November 2018 between the Applicant's and landowner's respective agents in which the matter was discussed. The note sets out the protections afforded to Ancient Woodland and the relevant guidance and how this would rule out the potential for an access road along the farm track proposed by the landowner's representative given it would result in the removal of Ancient Woodland. As such the Applicant is surprised this matter is being raised again at this stage of the Examination process.

4.1.6 A summary of the relevant following policies and guidance which protect ancient woodland is provided below.

(A) **National Policy Statement for Energy: EN-1** provides guidance regarding Ancient Woodland, noting that once lost it cannot be recreated and advising that "*the Infrastructure Planning Commission should not grant development consent for any development that would results in its loss or deterioration unless the benefits (including need) of the development, in that location outweigh the loss of the woodland habitat*."

(B) **National Planning Policy Framework:** Paragraph 175 of the NPPF notes that "*development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists*".

(C) **Natural England and Forestry Commission Guidance - Ancient Woodland, ancient trees and veteran trees: protecting them from development (November 2018)**: Combined Natural England and Forestry Commission guidance refers to that set out in the NPPF with regard to planning permission. The guidance also advises on the use of buffer zones to protect Ancient Woodland. A buffer zone of at least 15m should be implement around Ancient Woodland to avoid root damage. A buffer zone around a single ancient or veteran tree should be at least 15 times larger than the diameter of the tree and the buffer zone should be

5m from the edge of the tree's canopy if that area is larger than 15 times the tree's diameter.

(D) **Woodland Trust Practical Guidance – Planning for Ancient Woodland Planner's Manual for Ancient Woodland and Veteran Trees (October 2017)**: This guidance contains guiding principles to support good practice and regarding Ancient Woodland and veteran trees and includes the provision of adequate buffers in relation to ancient Woodlands and veteran trees.

4.1.7 With regards to the clearances from the overhead lines in the area running parallel to the northern edge of Stoneacre Copse, the overhead lines in this area are lower than the in area further west where the access road is proposed as a result of the OHL terminating in the south-west corner of the National Grid substation, immediately east of the area suggested for the alternative access road.

4.1.8 The Applicant can advise that assessments of clearance in relation to the area where the access road is proposed were carried out and all clearances are followed in line with ENATS 43-8 technical specification which is a recognised technical specification followed by National Grid.

4.1.9 Given the presence of the Stoneacre Copse and Crabden's Copse, the Applicant has not specifically assessed the clearances from the OHLs in this area as the removal of the ancient woodland was deemed unacceptable taking into account the overriding protection provided to ancient woodland as set out in the relevant policies and guidance referred to above.

4.1.10 **Summary of discussions with Sainsbury's**

4.1.11 The Applicant first engaged with Sainsbury's in 2017 in relation to ground investigations to support the indicative design work for the crossing under the railway. Surveys were subsequently undertaken in 2018 and a meeting took place with Sainsbury's in March 2019 to discuss the consultation document and the project's requirements. That meeting was summarised in a detailed email sent to Sainsbury's in May 2019 seeking feedback in relation to the Proposed Development. Feedback was not received until May 2020 when Sainsbury's appointed an agent to act on their behalf.

4.1.12 Sainsbury's representatives set out their preference that the Onshore Cable Route should be diverted back to Eastern Road from the area where there is a walkway between the Eastern Road and the western part of the Sainsbury's car park. This would remove approximately 150m of installation works from the north west part of the car park (along the access road) and divert these works into Eastern Road instead. Based on two circuits, this amounts to 300m of trenching and based on installation rate of 100m per week that would amount to approximately 3 weeks work.

4.1.13 The Applicant's agent sent a memorandum to Sainsbury's on 26 November 2020 which contained the following proposals to reduce the impact on Sainsbury's;

(A) The Applicant would avoid key working times around Christmas and running up to and during Easter and confirmed the Applicant is willing to commit to those measures;

(B) Works could only commence at 6.30pm and would need to be completed by 7am in the morning. That would involve works for 3.5 hours whilst the store is open. This reflects the noise and vibration mitigation whereby the Applicant has committed to not undertaking any significant noise generating activities such as tarmac cutting and breaking between the hours of 10pm and 7am.

(C) The memorandum also identifies where the temporary use of land would likely be able to be relied upon in a number of areas, rather than the acquisition of permanent rights. In addition, it states that the Applicant would be willing to agree to a communications protocol to ensure appropriate notice is provided to Sainsbury's in advance of works commencing.

(D) The trenching works in the area between Fitzherbert Road and the entrance to the Sainsbury's filling station would be undertaken with one circuit being installed at a time, rather than both circuits being installed at the same time, to reduce impacts in this area.

(E) Access to be maintained over a number of internal routes within the car park (save for a limited number of occasions such as when cable pulling is taking place) to minimise impact on traffic flows within the car park.

4.1.14 The Applicant has shared information with Sainsbury's to show how the car park could be kept operational during construction working hours through implementation of traffic management measures.

4.1.15 Installation of the cable route between the traffic signal junction on Fitzherbert Road and mini-roundabout access to the petrol filling station could be achieved through separate single lane closures of each exit lane, thereby ensuring that vehicular access to the site is not restricted whilst construction takes place at this location. Where required, road plating would also be used to ensure that the exit from the petrol filling station is maintained at all times.

4.1.16 Where installation of the cable route is taking place through the mini-roundabout and the northerly part of the car park this would be facilitated by shuttle working traffic signals to maintain access.

4.1.17 Once the construction zone is at least 50m south of the mini-roundabout this can be facilitated through single lane closures only, without the need for shuttle working traffic signals, due to the circulatory links across the wider car park providing for two-way entry and exit.

4.1.18 **Summary of discussions with Portsmouth City Council**

4.1.19 The Applicant commenced engagement with Portsmouth City Council in 2017. The first meeting in relation to the cable route took place in January 2018, with subsequent meetings held throughout 2018 and 2019. Heads of terms were issued in January 2020 and discussed with the Council further in March 2020. The Council appointed Gateley Hamer to represent them on property matters in September 2020. A number of meetings have since taken place between the Applicant's agent and Mr. Ian Cunliffe of Gateley Hamer to progress a voluntary agreement in relation to the Proposed Development.

4.1.20 **Information in response to a query regarding undertaking HDD beneath Farlington Playing Fields**

4.1.21 Portsmouth City Council queried why a HDD beneath Farlington Playing Fields would not be possible.

4.1.22 The initial feasibility study undertaken on behalf of the Applicant identified which areas can be installed using trenchless techniques. It is not possible to install the entire route alignment using back to back directional drills. The drills have all been looked at with a view to maximise HDD length where possible and minimise intrusion into public amenity space.

4.1.23 Noting that the area at the southern end of HDD-3 is constrained and there is not sufficient space available for stringing out product pipe, the required area for stringing out the product pipe would need to be at northern end of the HDD. This would have a significant impact on Sainsbury's, requiring a large amount of their

car park to be used for a number of months. It is not envisaged this could be undertaken without significantly impacting the use of the car park at the store.

4.1.24 The existing drill proposed by the Applicant for HDD-3 is approximately 1.5km long which is already at the upper end of the range of what is feasible. Extending its length significantly increases the risk of drill failure to unacceptable levels.

4.1.25 A direct route between the yard at Kendall's Wharf and Sainsbury's would also involve drilling directly under the Holiday Inn Hotel at Farlington. The Applicant's preference is not to drill under any existing properties.

4.1.26 The HDD would also pass under the railway. Whilst this is not technically unfeasible, the preferred solution under railway assets is micro-tunnelling or pipe-jacking rather than HDD and the Applicant is progressing discussions with Network Rail based on a micro-tunnelling solution.

4.1.27 For the above reasons, a HDD beneath Farlington Playing Fields from Kendall's Wharf to the southern end of Sainsbury's car park is not feasible, and therefore is not a reasonable alternative.

4.1.28 Portsmouth City The Council also queried whether a short HDD could be utilised between the exit location of HDD 3 and the entry pit for HDD 4 to avoid open trenching at Farlington Playing Fields.

4.1.29 Assuming the entry location for a short HDD in this area would be located north or north west of the exit location for HDD 3, the entry location would have to be located sufficiently far enough away from the boundary of the playing fields to enable the product pipe strings to be pulled through the respective bores once they have been installed. The exit pit would have to be located south or south east of the entry pit for HDD 4; this would be located on the cricket pitch in this area. As a result, it is anticipated the HDD entry and exit compounds required for a shorter HDD in this area would have a more significant impact than the open trenching approach around the eastern and northern perimeters of the areas.

4.1.30 The open trenching route between the exit point for HDD 3 and the entry pit for HDD 4 will be approximately 600m and will be undertaken along the eastern and northern boundary of the area to minimise the impacts of excavating through the existing pitches. Based on applying a conservative installation rate of 50m per day in this area the works would take 24 days.

4.1.31 Undertaking the HDD from an entry compound located north of the exit pit for HDD 3 would also introduce the risk of significantly constraining the programme for HDD 3 as it is highly likely the compound for the short HDD would be located in the area which would be used for stringing out and pulling the product pipe associated with HDD3. As such it would be very unlikely both activities could be undertaken in parallel, whereas it would be possible to undertaken the installation by open trenching in parallel with the HDD 3 works.

4.1.32 As the spatial requirements for an alternative HDD in this area are likely to result in a more significant impact on the pitches, whilst also introducing a significant programme constraint, it is not envisaged adopting such an approach would provide any benefits for the Applicant or Portsmouth City Council. Indeed, the opposite is much more likely.

4.1.33 It should also be considered that HDD is generally undertaken where there are significant environmental or technical constraints associated with undertaking installation by open trenching. There are no such constraints in this area.

5. ISSUE SPECIFIC HEARING 2 ('ISH2') – TRAFFIC, HIGHWAYS AND AIR QUALITY

5.1 No post-hearing notes were requested at ISH2.

6. ISSUE SPECIFIC HEARING 3 ('ISH3') – ENVIRONMENTAL MATTERS

6.1 Question 4E-3 – Request for post hearing note to confirm that tower cranes are not required, how this secured, and the position in relation to overnight position and how this is secured in the dDCO

6.1.1 Position in relation to the non-use of tower cranes to construct the Converter Station

6.1.2 Tower cranes are used predominantly for the construction of multi-story buildings and are not used for converter stations. Tower cranes will not be used to construct the Converter Station. Mobile cranes will be used to construct the Converter Hall Buildings.

6.1.3 In relation to the use of cranes, the Onshore Outline CEMP states at paragraph 6.3.1.1: Construction cranes will be retracted when not in use. The height of the cranes when not in use will be dependent on the crane manufacturer, but is likely to be approximately 5m. Tower cranes will not be used on site.

6.1.4 Assessment of the use of construction machinery within the LVIA

6.1.5 The Applicant was asked to detail how the LVIA undertaken or the purposes of assessing the likely significant effects of the construction of the Proposed Development has taken into account the use of construction machinery, and specifically cranes, required to construct the Proposed Development.

6.1.6 For construction, as at all stages of assessment, the assessor has considered the development in a holistic manner – considering the impact of the development as a whole, rather than looking at the impact of individual components and then aggregating these.

6.1.7 The assessor is a very experienced landscape architect, familiar with large construction sites. Whilst the specific details of cranage were not confirmed at the time of assessment, it was understood that with a building of the scale of the Converter Hall Buildings, cranage would be required and therefore the presence of cranes was considered in views during construction. Specifically, although not expressly stated, it was envisaged that moderate sized mobile cranes, of the type expected to be used, would be used.

6.1.8 Such structures were compared against the presence of pylon towers which are concentrated around the substation and range in height from 36 to 45m in height – taller than the cranage envisaged. Again, although not expressly stated, it has always been understood that cranes move, that there would be a change in the position of the mobile cranes depending on the activity required, and more obvious movement as a crane lifts an item, the boom swings from the lift to the drop-off position and back again.

6.1.9 Further assessment can be undertaken if the ExA considers that this is necessary. However, as might be appreciated, the assessor kept the assessment under review as the detail of the anticipated 500T mobile crane became available and the question was raised about the effects this would have. The conclusion drawn is that it would not alter the findings of the assessment for the reasons set out in the Hearing Transcript for ISH3 in relation to Q4E.

6.1.10 To further assist with understanding why the findings of the assessment would not change, set out below are summary appraisals from two of the viewpoints.

<u>Viewpoint 3, PRoW near Broadway Lane (Monarch's Way)</u>

6.1.11 In ES Appendix 15.6 Visual Amenity (APP-404) this is stated to be a "*Viewpoint to illustrate landscape/site context and views from the Monarch's Way, a regionally promoted route, at the junction of Broadway Lane, on the boundary of the SDNP, east of the Converter Station*". The viewpoint is representative of views available for local recreational receptors using the PRoW. It is

approximately 700m from the proposed Converter Station (with about 40m difference between the options, B(ii) slightly closer, B(i) slightly further).

6.1.12 The existing view is described as "*View from Monarch's Way PRoW close to the junction of Broadway Lane looking across to the Converter Station in a south-westerly direction. Fields in the foreground have been divided into paddocks for horse grazing. Mature hedgerows, hedgerow trees and woodland partially screens Lovedean substation. Pylon towers and overhead lines are a dominant feature crisscrossing the sky.*"

6.1.13 It is noted that "*The eastern upper elevations of the Converter Station are likely to be visible in the view.*" The view is noted to be representative of PRoW users and local residents in the immediate vicinity and who may experience a view, both of which are of high sensitivity.

6.1.14 In the detailed assessment (Appendix 15.8 Assessment of Landscape and Visual Effects, APP-406) the visual amenity effects on the Monarch's Way are given as "*A user of this route would have views varying from direct and open to oblique and filtered by intervening vegetation, largely woodland trees, hedgerows and hedgerow trees. The magnitude of change experienced would range from small to medium. The change to the visual experience of the route as a whole would be medium, resulting in a* ***moderate-major (significant)*** *adverse effect*".

6.1.15 In carrying out the assessment, the assessor envisaged that there would be cranage on site for part of the construction period and, given the height of the building, envisaged that these might be up to a height between the middle and upper cross-arms of the pylon that dominates the view in Figure 15.20C (APP-253). The 500T mobile crane now discussed would be a different shape and its movement might be slightly more obvious, reaching out and changing in angle of elevation, but in this view it would be an additional temporary visually intrusive industrial object in a view which is dominated by the substation, pylons and wirescape.

6.1.16 The assessment found that the magnitude of change experienced would range from small to medium, and this view is deliberately selected to present a worst-case example. The use of a 500T mobile crane would not increase the change above medium (defined in Appendix 15.3 LVIA Methodology APP-401 - Table 7 Magnitude of Landscape and Visual Change) which has the descriptor "*Occupies much of the view but would not fundamentally change its characteristics. Changes would be immediately visible but not a key feature of the view*" and thus would not alter the findings of significance.

Viewpoint 16, Old Winchester Hill

6.1.17 In ES Appendix 15.6 Visual Amenity (APP-406) this is stated to be a "*Viewpoint to illustrate the landscape/site context and views from the SDNP. Identified within the SDNP View Characterisation and Analysis Report (2015). The viewpoint is representative of views available for local recreational receptors using the PRoW and visitors to the Scheduled Monument, National Nature Reserve and bronze age burial mound, northwest of the indicative Converter Station Area.*" It is approximately 7.5 km from the proposed Converter Station.

6.1.18 The existing view, Figure 15.33 (APP-266) is described as "*View from Winchester Hill looking across to the Converter Station in a south easterly direction. This is a panoramic view looking across rolling fields divided by hedgerows/ hedgerow trees and woodland. Little West Farm and Stock Cottage are the only noticeable properties in the middle distance. Pylon towers and edge of Waterlooville / Purbook / Widley are noticeable on Ports Down alongside the early 19th century hillforts."*

6.1.19 It is noted that "*The upper elevations of the northern and western elevation of the Converter Station would be notable in the view*." The view is noted to be

representative of PRoW users and visitors to the Roman fort, both of which are of high sensitivity.

6.1.20 In the detailed assessment (Appendix 15.8 Assessment of Landscape and Visual Effects, APP-406) the visual amenity effects on Old Winchester Hill are given as "*From Old Winchester Hill, the construction works would be barely discernible well filtered by existing vegetation in the foreground of the view. The works would not intrude into or alter the overall composition of the view. The magnitude of change and the resultant effect would be negligible.*"

6.1.21 As described above, in carrying out the assessment the assessor envisaged that there would be cranage on site for part of the construction period. In this view it was envisaged that the cranes would appear to be near the height of the top of the tree canopy. In a view from this distance, it is likely that the narrow upper parts of the 500T mobile crane now discussed would be no more visible than the surrounding pylon towers, and thus would not alter the findings of significance.

6.2 **Question 4D – Request for confirmation of the position in relation external lighting of the Optical Regeneration Stations ('ORS') and how this is secured in the dDCO**

6.2.1 Paragraph 5.5.3 of the Design and Access Statement (REP1-031) confirms "*the ORS will not be illuminated other than in the event of an emergency. The emergency external lighting design will be developed during detailed design to allow for safe movement of vehicles and pedestrians and the repair, replacement and operation of equipment in the event of an emergency in accordance with the appropriate Chartered Institution of Building Services Engineers ('CIBSE'), British Standards Institution ('BSI') and Health and Safety publications.*"

6.2.2 Design Principle 5 of the Telecommunications Buildings and Optical Regeneration Station Design Principles contained at paragraph 6.3 of the Design and Access Statement (REP1-031) provides "*the ORS and Telecommunications Buildings will not be illuminated other than in circumstances such as upon activation of an intruder alarm or maintenance or repair operations*."

6.2.3 So as to clearly secure this during the operational period requirement 23 (control of lighting during the operational period) has been updated in the dDCO to be submitted at Deadline 6 to state "*During the operational period there will be no external lighting of Works No.2 or the optical regeneration stations within Works No. 5 during the hours of darkness save for in exceptional circumstances, including in the case of emergency and where urgent maintenance is required*". .

6.3 **Question 5l – Request for update on progress of all matters outstanding between the Applicant and MMO**

6.3.1 The list of matters detailed below is the Applicants current understanding of the areas of where agreement is yet to be reached with the MMO. We have also provided an overview of progress made to date in addressing these points, specific areas of disagreement still remaining, and a summary of our confidence in resolving such matters and by when we consider resolution will be achievable.

6.3.2 **Impacts to herring and the requirement for inclusion of a timing restriction**

6.3.3 The Applicant considers that the detailed assessment in Chapter 9 (Fish and Shellfish Ecology) appropriately assesses the potential impacts to herring, that the impact is not significant, and no additional mitigation is needed. The MMO advised in their Relevant Representation(RR-179) that they considered that a timing restriction (for up to 3 months) was required to protect spawning herring during sensitive periods.

6.3.4 The Applicant has worked with the MMO and their advisors in order to resolve the matter, including providing data used to support the assessment of impacts on herring including herring larvae data and particle size analysis data (PSA)(see REP3-013). Based on the data provided within REP3-013, the MMO advised that

they have refined down the potential timing restriction to a 4 week period over a part of the UK Marine Cable Corridor.

6.3.5 Further justification was requested from the MMO as to why they consider a restriction is required, and which aspects of the assessment in Chapter 9 of the ES they disagree with. Further justification was provided by the MMO (18 November 2020) but it isn't clear why / which aspect of the assessment they disagree with (only that they consider a restriction is needed).

6.3.6 While the Applicant considers that sufficient justification has not been provided by the MMO regarding the need for a restriction, a four week restriction will not significantly impact in the build out of the project. Therefore, the Applicant is willing to accept a four week restriction (from Dec 15 – Jan 15) for construction activities between KP 90 and KP 109.

6.3.7 The Applicant considers resolution of this issue within the Examination is certain. The Applicant agrees to the restriction and requests the MMO to draft the licence wording (and state location in the DML) in accordance with the parameters set out in paragraph 6.3.6 above for the Applicant to consider. Resolution of this matter is expected by Deadline 7.

6.3.8 **Contaminated sediments and requirements for further sampling**

6.3.9 Within Table 4.1 of the Statement of Common Ground (Item 4.1.1), the MMO has advised that should excavation of the HDD entry / exit point not occur within 5 years from the date of contaminant analysis then further advice should be sought from the MMO regarding the need for further sediment sampling analysis.

6.3.10 The MMO provided draft wording for the proposed condition, which is based upon a dredge and disposal licence condition for ports and harbours projects, which we do not consider to be analogous to our project.

6.3.11 As discussed in a meeting with the MMO on 19 November 2020, while the Applicant understands the reasoning behind the request (i.e. to make sure that the level of contaminants hasn't changed over time) given the low level of contaminants previously identified (Appendix 7.3 Contaminated Sediments Survey Report, APP-374) and the very small volumes that need to be excavated i.e. maximum of 2,700 m^3, we consider the risk is very low and query the need for such a condition.

6.3.12 We previously requested further clarity from the MMO and Cefas on how this has been applied to projects of a similar nature i.e. construction projects such as cables and windfarms which are undertaking small excavations for HDD or works, or as part of seabed preparation activities, but they have been unable to provide such detail – we have (via email on the 8 December 2020) requested that they revisit this with Cefas.

6.3.13 This might be resolved by the MMO providing detail on projects which are analogous to ours e.g. cables and OWFs, which are undertaking HDD works and seabed preparation (rather than port and harbour dredge & disposal licences) and that have been subject to the same requirement; this would demonstrate a consistency of approach.

6.3.14 Conversely, the MMO may identify the specific details of our application that necessitates the inclusion of such a condition when considering the low volumes of sediment being excavated and the absence of significant contaminants in the previous samples (analysis of samples closest to the HDD works were all significantly below Cefas Action Level 1).

6.3.15 The Applicant is reviewing the latest feedback from the MMO provided on 21 December 2020, although the MMO has not provided any other examples of similarly worded conditions from analogous projects. The Applicant will respond in due course.

6.3.16 Should agreement not be possible, the Applicant will seek to agree the drafting of the DML condition with the MMO, without prejudice to its position that one is not required, to inform the decision making of the Secretary of State.

6.3.17 **Operational deployments of cable protection to be supported by survey data no older than 5 years old;**

6.3.18 The Applicant provided additional wording on 8 December 2020 for this requirement to be included in the DML as follows;

> "*…details and justification for the installation of any additional cable protection to be informed by survey data less than 5 years old, unless agreed with the MMO, in the location/s where the laying of additional cable protection is proposed*;"

6.3.19 In light of the recent feedback provided by the MMO on 21 December 2020 (Appendix 12) which requested the inclusion of details around habitats and previously laid cable protection, the Applicant has amended the DML submitted at Deadline 6 (APP-019, Rev 005) as per the requested items from the MMO (as reflected in Table 4.1 of the SoCG submitted at Deadline 6).

6.3.20 It is considered that the matter will be resolved by Deadline 7.

6.3.21 **Atlantic Cable Crossing parameters**

6.3.22 We have agreed with the MMO and additional detail to define the extent of the cable crossing at Part1 4 (1) of the DML and to commit to monitoring scour/erosion so the crossing as part of maintenance surveys has been incorporated into the DML submitted at Deadline 6.

6.3.23 The MMO in their email to the Applicant on 21 December 2020 had some residual concerns regarding the details in Part 1 (4) more broadly. The Applicant considers that this matter will be resolved by Deadline 7.

6.3.24 **Arbitration and Appeals**

6.3.25 The parties disagree on the approach to appeals applying to decisions taken, or not taken, by the MMO. The reasons for this are those which are set out in the Statement of Common Ground between the Applicant and the MMO at Deadline 6. It is considered that the position of both parties are settled and this will remain a matter which is not agreed.

6.3.26 **Additional DML drafting points**

6.3.27 **Schedule 15, Part 1 Condition 10** – the MMO has raised concerns that this may allow certain activities to be undertaken which are not within the scope of the EIA, and may result in issues should the DML permit activities outside the scope of the DCO.

6.3.28 The Applicant is clear that it may be necessary to amend the details (plans, protocols or statements) which licenced activities are to be carried out in accordance with and which have been previously approved as stated in Part 1 Paragraph 9.

6.3.29 Part 1 paragraph 10 allows for such amendments to approved details including plans to be made, but when any such amendment to approved details is sought the variation must demonstrate it accords with the ES (i.e. the approval sought is unlikely to give rise to any materially new or materially different environmental effects from those already assessed). Without this wording, there is no ability to make any such minor variations. As such, a provision to this effect must remain in the DML. Given this, and that approvals need to be made by the MMO, the issues identified by the MMO will not occur.

6.3.30 In order to help resolve the matter the Applicant has offered to amend the wording of Schedule 15, Part 2 Condition 10 to agreed wording from the Norfolk Vanguard Offshore Wind Farm Order 2020 as follows;

> '*Any amendments to or variations from the approved plans, protocols or statements must be minor or immaterial and it must be demonstrated to the satisfaction of the MMO that they are unlikely to give rise to any materially new or materially different environmental effects from those assessed in the environmental statement.*'

6.3.31 The MMO also advised in their correspondence on 21 December 2020 that they query the purpose of the Schedule 15, Part 1 Condition 9, Condition 10 and the Norfolk Vanguard wording as proposed.

6.3.32 The Applicant is confident that these drafting points can be agreed by Deadline 7.

6.3.33 **Schedule 15, Part 1, Paragraph 4(5)** – the Applicant confirmed with the MMO on 8 December 2020 that they would remove this section from the DML. The MMO however advised (21 December 2020) that they have residual concerns regarding the similar wording in Schedule 15, Part 1, Paragraph 4 e.g. that it permits works which are not permissible under the DML. It is the Applicant's position that this is a standard approach to DCO / DML drafting, that it is not possible to include every minor detail of works which may be required at this stage, that the condition requires the works to fall within the scope of the environmental assessment, and that any all licensable works require MMO approval through relevant DML conditions e.g. Part 2 Condition 4 (c).

6.3.34 The Applicant will continue to work with the MMO on this matter and is confident that it is resolvable, most likely by Deadline 7.

6.4 Question 6K-4 – Request for clarification in relation to dissipation of vibration effects

6.4.1 In the example illustrated in Exhibit 2 of ISH3 (cable and duct installation in section 2) (REP5-071), the Applicant explained that adverse noise levels will extend to 22m either side of the cable route, and beyond this distance, negligible effects will occur.

6.4.2 In the case of vibration effects for the example illustrated in Exhibit 2, as the cable route will be installed across open country (i.e. fields), regardless of the exact cable route alignment, no vibration effects are anticipated in due to the absence of vibratory activities (i.e. use of a breaker for road surfaces, or a vibratory roller during resurfacing activities). This is explained in Paragraph 24.6.3.4 of the ES (APP-139). Short term vibration activities may occur at the points where the cable route crosses the single track road and Anmore Road at the respective northern and southern boundaries of section 2, but given the narrow width of these roads (c.5 m) and the relatively fast installation rate (30m per day (REP1-151)), these activities will be very short duration and therefore not result in any significant vibration effects.

6.4.3 In sections 4-6 and 8-10, vibratory activities (road surface breaking and vibratory rolling) are anticipated due to the potential installation of cables within roads/footpaths, and the assessment of vibration effects are presented in section 24.6 of Chapter 24 of the ES (APP-139) and section 17.3 of the ES Addendum (REP1-139). For these sections, negligible vibration levels will occur at distances greater than 66m from the cable route for road surface breaking, and greater than 29m from the cable route for vibratory rolling. The same principles applied to the noise assessment are equally applicable to the vibration assessment; only those properties located within these distances (66m and 29m) from the Order Limits edge would be subject to adverse vibration effects.

6.4.4 Therefore, the conclusions drawn from the sensitivity test for the noise assessment can be equally applied to the vibration assessment as follows:

(A) The magnitude of vibration level is only one factor used to determine the overall vibration effect. There are other factors that require equal consideration, particularly the duration of exposure, timing of the works, and receptor sensitivity. These other factors are not affected by the precise alignment of the cable route. A receptor's exposure to vibration effects will be very limited in duration because adverse vibration levels are only created during a limited number of construction activities, and furthermore these activities will not take place at night in proximity to sensitive receptors (as secured through the Outline Onshore CEMP (REP5-019)).

(B) Regardless of the precise alignment of the route, the total duration of exposure of each receptor to a greater than negligible vibration level will not change.

(C) Whilst there could be minor differences in the magnitude of vibration level experienced at some receptors depending on the exact cable route alignment, this is unlikely to alter the overall perception of effects. The conclusions of the assessment will not change and therefore assessing an illustrative route is a robust, reasonable worst-case and proportionate approach.

6.5 Question 7 – Ground settlement and potential impacts on drainage at Farlington Playing Fields

6.5.1 The Applicant is currently preparing a Method Statement in relation to the reinstatement of the Farlington Playing Fields to be submitted at a future deadline. In addition, the Applicant has site investigation works planned in January 2021 which should support with the proposed Reinstatement Method Statement. This method statement and the site investigations will provide a clearer understanding of the potential for ground settlement and potential impacts on drainage at Farlington Playing Fields.