

Norfolk Vanguard Offshore Wind Farm

Appendix 28.2

Onshore Archaeology and Cultural Heritage Detailed Consultation Responses

Environmental Statement

Volume 3 - Appendices

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Photo: Kentish Flats Offshore Wind Farm



Environmental Impact Assessment Environmental Statement

Document Reference: PB4476-005-0282

June 2018

For and on behalf of Norfolk Vanguard Limited

Approved by: Ruari Lean, Rebecca Sherwood

Signed:

Date: 8th June 2018

For and on behalf of Royal HaskoningDHV

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Date: 25th May 2018



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28 APPENDIX 28.2 DETAILED CONSULTATION RESPONSES

Table 28.2.1 Consultation responses

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The SoS welcomes the proposal to discuss the archaeological evaluation approach with the NCC HES and Historic England and to develop a mitigation strategy outlining a programme of further archaeological investigations.	Ongoing dialogue with NCC HES and HE has been maintained throughout the process, with requisite reviews and approvals sought for assessment and evaluation proposals outlined in survey-specific WSIs (to date, pre-consent: ADBA, Geoarchaeological Watching Brief and Priority Geophysical Survey). Initial informative stages of mitigation work (e.g. further geophysical survey and archaeological trial trenching) will be undertaken post-consent in agreement with NCC HES and HE, followed by bespoke mitigation requirements on a case-by-case, site-by-site, area-by-area basis, as and where required. See Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.1 and 28.7.1. This is further described in the Outline WSI (DCO Document 8.5).
The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The Applicant should ensure that the study area around the final route corridor is sufficiently broad to give consideration to heritage assets that could be indirectly impacted.	The Study Areas considered in Chapter 28 Onshore Archaeology and Cultural Heritage and supporting appendices (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.5.1) have been devised specifically to encompass a broad area surrounding the onshore project area so that indirect impacts (e.g. settings implications) can be considered. The Study Areas proposed have been agreed in consultation with HE and NCC HES and are considered sufficiently broad for this purpose. The heritage settings assessment is detailed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.4.3 and 28.7.5.1), and has been further informed by reference to LVIA tool-kits (e.g. ZTVs and photomontages), where relevant.
Historic England via The Planning Inspectorate	November 2016 / Scoping Opinion	Historic England note that the demolition of buildings and infrastructure can have an impact greater than that of constructions. The SoS therefore does not agree that	The demolition referred to in this comment relates the demolition, should it occur, of the above ground infrastructure elements of the project, which may occur as part of the decommissioning phase.

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(SoS)		the decommissioning phase can be scoped out of the EIA.	The decommissioning phase has been addressed and included in the Onshore Archaeology Method Statement, ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.
The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	Appropriate cross reference should be made to the Landscape and Visual Impact Assessment section of the ES. The selection of the viewpoints within the Landscape and Visual Impact Assessment (LVIA) should incorporate views from cultural heritage locations and should be agreed with the relevant authorities.	The relationships between onshore archaeology and cultural heritage and the LVIA have been addressed in the Onshore Archaeology Method Statement, ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.5.1 and 28.6. Heritage specific viewpoints have been identified in collaboration with the LVIA consultants and consulted upon with stakeholders.
The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The Applicant's attention is drawn to the comments of Historic England (see Appendix 3 of this Opinion).	HE's main comments and our responses are outlined and summarised below and incorporated, where relevant, into Chapter 28 Onshore Archaeology and Cultural Heritage.
Norfolk County Council via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	(c) Cultural Heritage and Archaeology These issues ought to be discussed with Norfolk Landscape Archaeology (Ken Hamilton) 01362 869275.	Ken Hamilton has since moved on from NCC and as such contact and ongoing communication has been picked up with James Albone. Elements of the project relating to the assessment, evaluation, survey and mitigation of onshore archaeology and cultural heritage have been discussed with James Albone as part of ETG meetings and have informed Chapter 28 Onshore Archaeology and Cultural Heritage (see sections 28.5, 28.6 and 28.7.1).
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	This project has the potential to impact upon the historic environment in a number of ways, with direct / indirect impacts of a temporary and permanent nature. Impacts are not confined to the project footprint, but beyond where the setting of heritage assets is concerned. An assessment of all these separate elements of the project will need to be undertaken to the same high level.	Both direct and indirect impacts have been considered as part of this assessment. Direct impacts, should they occur, are likely to be permanent and are discussed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.4.1, 28.7.4.2 and 28.7.6.1. Indirect (setting) impacts, should they occur, are considered to be temporary, and are confined to construction, with the exception of the onshore project substation, which would be for the lifetime of the project (assuming above ground infrastructure is removed as part of decommissioning). Issues relating to the setting of heritage assets are addressed in Chapter 28 Onshore Archaeology and

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			Cultural Heritage sections 28.6, 28.7.4.3 and 28.7.5.1.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The remit of HE in relation to this project would be the impact upon the intertidal and fully marine historic environments and the terrestrial historic environment in regard to the highly graded designated heritage assets. The applicant should consult with NCC HES (NHES) with regards to undesignated terrestrial archaeology above the MHWL and the relevant conservation officers regarding impacts upon the setting of listed building and parks and gardens as well as conservation areas and other undesignated heritage assets within their remit.	Noted. The relevant regulators, stakeholders and consultees have been consulted throughout the process as part of ETG meetings, and actions incorporated into Chapter 28 Onshore Archaeology and Cultural Heritage, where relevant.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The project should afford sufficient time and resources to undertake a full assessment of the historic environment within the Project Area. Impacts of the proposed development upon the designated and non-designated heritage assets (and their settings) should be determined. The level of any resulting benefit, harm or loss to their significance should be assessed.	A full assessment of the historic environment was undertaken as part of the ADBA (see Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1), the results of which have informed Chapter 28 Onshore Archaeology and Cultural Heritage (see section 28.6). Impacts upon both designated and non-designated heritage assets are identified and the impact significance levels determined, where possible, in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA should fully identify and define the nature, extent and significance of the historic environment which is likely to be affected by the proposed works. This should include the environment within the physical footprint of the development works, as well as areas outside of these sites which could be indirectly impacted by the physical works - such as changes in coastal or marine processes within the intertidal zone.	A full assessment outlining the nature and extent of the onshore historic environment (where known) was undertaken as part of the ADBA (see Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1), the results of which inform Chapter 28 Onshore Archaeology and Cultural Heritage (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6). Heritage significance is explored in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6 and 28.7. The Study Areas considered in this assessment include a wider footprint than that afforded by onshore project area to ensure that indirect impacts are captured as part of the assessment (see Chapter 28 Onshore

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			Archaeology and Cultural Heritage section 28.5.1). The Offshore and Intertidal Zone is more specifically assessed in Chapter 17 Offshore and Intertidal Archaeology and Cultural Heritage, although inter-relationships with Chapter 17 are identified in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.9.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The assessment must consider any potential impact upon the setting of nearby designated (and non-designated) heritage assets both within, and without, the onshore cable corridor. Assessment should include detailed consultation with HE, the NCC HES and the relevant local planning authorities' Conservation and Landscape Officers. The assessment would require programmes of agreed / approved desk-based assessment and on-site investigation undertaken at the earliest stage possible in order to inform the need for and scope of any mitigation. Such mitigation could include programme of archaeological works and works to preserve heritage assets in situ or via record. Mitigation may also require substantial changes to the design and location of the proposed developments.	See ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage, as well as the approved WSI for ADBA, agreed with NCC HES and HE previously. Issues relating to the setting of heritage assets, including both designated and non-designated heritage assets, are addressed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.6.3.3, 28.7.4.3 and 28.7.5.1. Mitigation measures will be agreed in consultation with NCC HES and HE, although a number of best-practice approaches have already been implemented and/or identified (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.1).
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The proposed landfall between Bacton Green and Eccles-on-Sea is internationally recognised because it has revealed spectacular evidence of prehistoric human activity. In particular the earliest evidence of human existence in the UK – e.g. the famous hand axes and footprints of Homo antecessor found in the area around Happisburgh in 2014.	A specific independent academic steering group (members of the AHOB / PAB Projects) has been established with respect to coastal, intertidal and nearshore archaeological considerations at the landfall – focusing on Happisburgh. The first meeting from which was held 2 nd May 2017. Geoarchaeological monitoring of a programme of ground investigation works has been undertaken on the basis of the potential for deposits of geoarchaeological interest to exist within the onshore project area, the results of which are included in Chapter 28 Onshore Archaeology and Cultural Heritage and Chapter 28 Onshore Archaeology and Cultural Heritage

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			Appendix 28.6.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The landfall area also contains evidence of a more recent and complex historic landscape with a large number of non-designated archaeological sites and areas of archaeological potential and a number of designated heritage assets.	See ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage, as well as the approved WSI for ADBA, agreed previously with NCC HES and HE. Heritage assets (designated and non-designated) and other potential sub-surface archaeological remains represented by the aerial photograph and LiDAR data assessment are included in the existing environment section of Chapter 28 Onshore Archaeology and Cultural Heritage (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6). The Historic Landscape Character has also been subject to consideration (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.4).
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	In consideration of the potential risk to the historic environment, both known and unknown, HE should be officially invited by the Applicant to participate in the EPP as a priority action.	HE are key participators in the EPP. Consultation undertaken to date with HE is detailed in this table and addressed where relevant throughout the chapter.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The work of the AHOB project (Ancient Humans of Britain) would be of interest as a starting point to understand the presence of the Cromer Forrest Bed deposits within the area of the landfall and the internationally important Happisburgh area.	<p>A specific independent academic steering group (members of the AHOB / PAB Projects) has been established with respect to coastal, intertidal and nearshore archaeological considerations at the landfall – focussing on Happisburgh. The first meeting from which was held 2nd May 2017. The four main high-level aims of the AHOB engagement process are to:</p> <ul style="list-style-type: none"> • Minimise loss of archaeological information. • Maximise knowledge gained from pre-construction and construction activities. • Inform the design of the cable landfall. • Avoid delays during construction. <p>It was agreed the key stakeholders invited to the meeting</p>

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			(including those unable to attend) would form the steering group for the coastal, intertidal and near-shore elements of the project. It was suggested and agreed that the group would undertake regular engagement from 2019 onwards, potentially every quarter, with updates on project progress provided every approx. six months in the meantime.
SUGGESTED QUESTIONS FOR CONSIDERATION: ONSHORE (SCOPING)			
Q1. Please tell us about further data sources that could be reviewed as part of the site characterisation for each topic?			
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA would need to undertake a full search of the NHER to ensure it has considered all appropriate archaeological records, rather than just the Norfolk Heritage Explorer as stated in the Scoping Report.	Full commercial searches of the Norfolk Historic Environment Record have been undertaken: <ul style="list-style-type: none"> • May 2016; and • May 2017. See Chapter 28 Onshore Archaeology and Cultural Heritage section 28.5.2. NHER data are incorporated into Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	With regards to the international importance of Happisburgh, the work of the AHOB project (Ancient Humans of Britain) would be of interest as a starting point to understand the presence of the Cromer Forrest Bed deposits within the area of the landfall.	A specific independent academic steering group (members of the AHOB / PAB Projects) has been established with respect to coastal, intertidal and nearshore archaeological considerations at the landfall – focussing on Happisburgh. The first meeting from which was held 2 nd May 2017. The four main high-level aims of the AHOB engagement process are to: <ul style="list-style-type: none"> • Minimise loss of archaeological information. • Maximise knowledge gained from pre-construction and construction activities. • Inform the design of the cable landfall. • Avoid delays during construction. It was agreed the key stakeholders invited to the meeting (including those unable to attend) would form the steering group for the coastal, intertidal and near-shore elements of the project. It was suggested and agreed that the group would undertake regular

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			engagement from 2019 onwards, potentially every quarter, with updates on project progress provided every approx. six months in the meantime.
Q2. Tell us about any other relevant potential impacts for each topic?			
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA should consider the impact upon both designated and non-designated onshore heritage assets and their setting. Assets beyond the Onshore Scoping Area may be subject to setting impacts. This should be considered as part of the EIA (e.g. Section 3.8.2.3, Paragraph 1060).	Impacts upon designated and non-designated heritage assets are considered and include direct and indirect impacts. Direct impacts, should they occur, are considered to arise as a result of intrusive groundworks and are discussed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.4.1, 28.7.4.2 and 28.7.6.1. Indirect impacts upon the setting of heritage assets have also been assessed. The heritage settings assessment is detailed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.4.3 and 28.7.5.1), and has been further informed by reference to LVIA tool-kits (e.g. ZTVs and photomontages), where relevant. Heritage specific viewpoints have been identified in collaboration with the LVIA consultants and consulted upon with NCC HES and HE.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA should assess nature and extent of the historic environment, identifying those heritage assets likely to be effected by each element of the proposed onshore development works. It should assess and describe the significance of these assets including the contribution made by setting to this significance. The EIA must assess all relevant elements of an asset's setting and should consider the impact from other environmental factors. For the visual assessment photomontages, wireframe models and / or similar techniques should be used to illustrate and assess the impact from elements such as the Substation and CRS. The EIA should assess the magnitude of impact upon the assets and the resulting	The nature and extent of the historic environment, where known, is outlined in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6. Heritage significance is explored in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6 and 28.7. Impacts which may arise as a result of various elements of the project in relation to historic environment have been identified in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7, and the significance of impacts discussed. The heritage settings assessment is detailed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.4.3 and 28.7.5.1), and has been further informed by reference to LVIA tool-kits (e.g. ZTVs and photomontages), where relevant. Heritage specific viewpoints have been identified in collaboration

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		levels of benefit, loss or harm to significance.	with the LVIA consultants and consulted upon with NCC HES and HE.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The assessment should consider cumulative impact upon the setting of the designated and non-designated heritage assets, as well as cumulative impact from groundworks. It is possible that the impact of a development can effect below ground deposits over a much wider area - for example works may result in hydrological changes which could result in the desiccation and drying of wetland deposits and preserved waterlogged archaeological remains.	See ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. Cumulative Impacts have been identified and are specifically addressed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.8; including reference to groundworks in respect to above ground and buried archaeology remains (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.8.1.1), as well as settings implications.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA would need to consider the impact from all likely form of foundation design and all other groundworks which might be needed. Foundation designs could include piling and therefore and particular types of assessment and mitigation would be needed (such as geoarchaeological borehole, for example). The EIA should acknowledge that all works would need to be followed by appropriate programmes of post-ex assessment, followed by detailed analysis, archiving and publication, tied in to national and regional research strategies.	See ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. As well as the approved Onshore Archaeology Method Statement and WSI for ADBA, agreed previously. Specific reference to the worst case scenario of the project design in relation to onshore archaeology and cultural heritage is included in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2. A scheme-wide approach to Geoarchaeological Assessment / Palaeoenvironmental Survey is proposed post-consent, including considerations re. the onshore project substation. Post-excavation programmes will be prepared in line with industry best practice, agreed in consultation with HE and NCC HES and are initially noted in the Outline WSI (DCO Document 8.5).
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	All supporting technical information produced for the EIA should be included as appendices. Where relevant, the heritage chapter should be cross-referenced to other chapters or technical appendices; for example noise, light, traffic and landscape.	The ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) contains annexes for baseline gazetteers (Non-Designated and Designated, including settings related) based on the initial project design, as well as Heritage Assessment of Aerial Imagery (Aerial Photographic and LiDAR Data Assessment). Refined and updated gazetteers with respect to the ES related

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			<p>onshore project area and associated study areas are provided in Chapter 28 Onshore Archaeology and Cultural Heritage Appendices 28.3 and 28.4.</p> <p>Inter-relationships that exist between onshore archaeology and cultural heritage and other chapters, where relevant, have been identified in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.9 and appropriate cross referencing to LVIA made throughout Chapter 28 Onshore Archaeology and Cultural Heritage.</p>
Q3. Do you agree with the potential impacts that have been scoped out for each topic? If not, please provide details.			
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	Section 1.5 of the Scoping Report makes reference to the type of heritage assets that would be assessed. Some of the terminology used is incorrect and it is unclear whether assets are being scoped out, or if they are just being incorrectly referenced. This needs to be revised accordingly.	Addressed in ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. As well as the approved Onshore Archaeology Method Statement and WSI for ADBA, agreed with NCC HES and HE.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	Section 1.5.7 identifies key principles of the onshore cable route site selection as being to 'avoid proximity to historic buildings; and avoid designated sites. It is unclear if the reference to 'designated sites' refers to the historic environment or ecology, and the use of the phrase 'avoid proximity to historic buildings' excludes the majority of other heritage assets. The same issues repeated again in Section 1.5.6 (Paragraph 235) and Section 1.5.8 (paragraph 244).	<p>Addressed in ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. As well as the approved Onshore Archaeology Method Statement and WSI for ADBA, agreed with NCC HES and HE.</p> <p>The avoidance of (physical impacts to) designated heritage assets is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.2.1 and 28.7.1 and as such, no direct physical impacts are anticipated to occur to designated heritage assets (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.2).</p> <p>This is with the exception of the Blickling Conservation Area (356) through which cable installation works will take place, as previously discussed with NCC HES and HE. Although the occurrence of such works constitutes a direct physical impact on the landscape character of the Conservation Area (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.2.1), the landscape</p>

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			elements of the Conservation Area subject to impact are considered to have been largely subject to certain levels of alteration and 'recent' change already, as part of agricultural use. Sensitive backfilling and reinstatement will be undertaken following construction and field boundaries and hedgerows returned to their pre-construction condition (see Outline WSI document reference 8.5 and Outline Landscape and Ecological Management Strategy (document reference DCO document 8.7).
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	Within Section 3.8.2 (Potential Impacts) Paragraphs 1047, 1049 and 1054 talk about setting of built heritage assets and historic landscape only. This is too narrow and needs to consider setting of all designated (and non-designated) heritage assets.	Addressed in ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. As well as the NCC HES and HE approved Onshore Archaeology Method Statement and WSI for ADBA. Issues relating to the setting of heritage assets include designated and non-designated and are addressed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.6.3.3, 28.7.4.3 and 28.7.5.1.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA should note and assess that non-designated assets also have a setting. It should be highlighted that there could be numerous archaeological sites which, although not designated, would be consider to be of national importance and should be afforded similar consideration as scheduled monuments. This is considered in the NPPF under paragraph 139.	Addressed in ADBA (Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage. The setting of non-designated heritage assets is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.3.3 and addressed in relation to impacts as part of Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The Scoping Report proposes to scope out the impact upon below ground and above ground archaeology during the 'decommissioning stage' for all elements of the project (as this would be covered during construction stage). However, the demolition of buildings and infrastructure can have an impact greater than that of constructions. Therefore this should be considered as part of the EIA.	The decommissioning phase is addressed and included in the NCC HES and HE approved Onshore Archaeology Method Statement, ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.6.

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Q4. Have the relevant potential cumulative impacts been identified? If not, please provide details. <i>Please see comments above.</i>			
Q5. Do you agree with that the proposed approach to assessing each impact is appropriate? If not, please provide details. <i>Please see comments above.</i>			
Q6. Is there any further guidance relating to each topic that we should be aware of? If so, please provide details.			
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The NPPF is the core planning policy within which the terrestrial historic environment is assessed and should be strongly referenced throughout the Scoping Report. There is similarly no mention of the Ancient Monument and Archaeological Areas Act 1979, which pertains to works effecting scheduled monuments or the Planning (Listed building and Conservation areas) Act 1990.	Addressed in ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.2). As well as the NCC HES / HE approved Onshore Archaeology Method Statement and WSI for ADBA.
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The EIA should make full reference to the NPPF Planning Practice Guidance and the Good Practice Advice Notes produced by Historic England - in particular GPA 3: The Setting of Heritage Assets.	Addressed in ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.2). As well as the NCC HES / HE approved Onshore Archaeology Method Statement and WSI for ADBA.
Q7. Do you agree with the proposed extent of the study area for the individual topic? If not, please provide details. <i>Please see comments above.</i>			
Q8. Please tell us comments for each topic regarding the search areas and sectors for the following project infrastructure: <i>Please see comments above.</i>			
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	The historic environment map (Page 296) is too small in scale and not useful in assessing the scope of the EIA. Larger scale maps, broken down into sections (as is provided for Ancient Woodland and SSSIs) should be included. It would also be useful to have a map similar	Addressed in ADBA and Chapter 28 Onshore Archaeology and Cultural Heritage. See Figures 28.1-28.5.

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		to that shown on Page 55 for designated heritage assets within area of Substation and a map similar to that shown on Page 60 for designated heritage assets within area of the CRS.	
Historic England via The Planning Inspectorate (SoS)	November 2016 / Scoping Opinion	References to the Historic England Regional Science Advisor should be updated to Historic England Science Advisor (East of England). References to guidance and other publications by 'English Heritage' should be updated to 'Historic England'.	Noted and addressed throughout the chapter, where relevant.
Norfolk County Council HES / Historic England	February 2017 / EPP ETG Onshore Archaeology Meeting Log	<p>Discussions included:</p> <ul style="list-style-type: none"> • Preparation of an ADBA WSI; • Anticipated programme of survey and evaluation discussed, including geophysical, geotechnical and other survey / evaluation opportunities / requirements; • Conservation Area impacts and consent; • Trial-trenching; and • The Onshore Archaeology and Cultural Heritage Method Statement. <p>(Further details are included in Table 28.2 of this Appendix, Appendix 28.2)</p>	<p>Re: The <u>ADBA WSI</u>: this was agreed with NCC HES and HE. The ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) has been prepared in accordance with this WSI.</p> <p>Re: Priority <u>Geophysical Survey and Geoarchaeological Watching Brief</u> 'Survey-specific WSIs' were prepared and agreed in consultation with NCC HES and HE. Additional survey work is referenced in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.5.2, 28.6 and 28.7.1.</p> <p>Re: <u>Conservation Area impacts</u>: Conservation areas are considered further in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6. Separate Conservation Area Consent is not required outside of the DCO process. Conservation Area Consent was abolished by the Enterprise and Regulatory Reform Act 2013 and replaced with a requirement for planning permission for demolition of a building within a Conservation Area. No demolition within Conservation Areas is anticipated to be required as part of the project.</p> <p>Re: <u>Trial trenching</u>: this is to be undertaken post-consent. See Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.1 and the Outline WSI (DCO Document 8.5).</p> <p>Re: <u>Method Statement</u>: this was approved by NCC HES and HE. The</p>

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
			ADBA (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) and chapter have been prepared in a manner consistent with this Method Statement.
<p>AHOB and PAB Representatives, including:</p> <ul style="list-style-type: none"> - Natural History Museum; - British Museum; - Queen Mary University of London. <p>Norfolk County Council HES / North Norfolk District Council</p>	<p>May 2017 / Meeting Minutes: Coastal, intertidal and nearshore archaeological considerations at the landfall options – focusing on Happisburgh.</p>	<p>Discussions included:</p> <ul style="list-style-type: none"> • Aims of the AHOB engagement process; • Establishment of a steering group for the coastal, intertidal and near-shore elements of the project; • Funding opportunities to support further academic research at Happisburgh; • Geotechnical survey (monitoring and ground investigation works) including geological considerations and coring locations; • Sharing of existing coring data to inform GI locations; • A survey-specific WSI for geoarch WB; • Landfall option update; • Potential for archaeological deposits and methodologies for data acquisition; and • Points of contact. <p>(Further details are included in Table 28.2 of this Appendix, Appendix 28.2)</p>	<p>Outcomes resulting from these discussions have informed Chapter 28 Onshore Archaeology and Cultural Heritage and will continue to be considered as part of the DCO application and DCO process as it progresses. The steering group have been updated re. progress of the project. Opportunities for data sharing with regards to geotechnical data will be discussed further with the steering group post-consent.</p> <p>A survey-specific WSI was prepared for the geoarchaeological monitoring (watching brief) of engineering GI and the works undertaken on the basis of the agreed methodology between July-August 2017 and November 2017. The results of which are included in Chapter 28 Onshore Archaeology and Cultural Heritage and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6.</p> <p>No deposits resembling the Cromer Forest-Bed were encountered in the boreholes in the Landfall areas. If Cromer Forest-Bed Formations sediments do survive they are likely to be found at a significant depth.</p>
<p>Historic England / Norfolk County Council HES</p>	<p>May 2017 /</p> <ol style="list-style-type: none"> 1) Onshore Archaeology Method Statement; 2) Minutes of the Onshore Archaeology Topic Group Meeting 	<p>A final call for any comments on the previously issued documents.</p> <ol style="list-style-type: none"> 1) Onshore Archaeology Method Statement; 2) Minutes of the Onshore Archaeology Topic Group Meeting (1st Feb 2017); 3) Onshore Archaeology Topic Group Meeting Log; and 4) WSI for Archaeological Desk Based Assessment (Terrestrial Archaeology). 	<p>No comments raised. The ADBA (Appendix 28.1) and Chapter 28 Onshore Archaeology and Cultural Heritage have been prepared in a manner consistent with these agreed documents and discussions held.</p>

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
	(1st Feb 2017); 3) Onshore Archaeology Topic Group Meeting Log; and 4) WSI for Archaeological Desk Based Assessment (Terrestrial Archaeology).	Will Fletcher (HE) via Email: <i>I have no comments on the attached.</i> Note: JA (NCC HES) verbally confirmed (face-to-face) post the 2 nd May 2017 AHOB / PAB meeting that he was happy with the content of the WSI for ADBA.	
Historic England	May 2017 / WSI for Archaeological Desk Based Assessment (Terrestrial Archaeology)	<p>Summary of comments raised:</p> <ul style="list-style-type: none"> • <u>Onshore archaeology programme and geophysical survey</u> - it is important to keep in mind the benefits of utilising more than one technique in a survey, particularly given the conditions in Norfolk. • <u>Metal detecting, field walking and earthwork surveys</u>: <i>The WSI states that these will be carried out "only if required". It would be sensible to explain how this decision would be made and confirm that there would be a role for the LPA in that decision making process.</i> • <u>Documentary sources</u> (Section 2.2), the list does not include the BGS archive of cores / boreholes. This may also provide useful historic environment information for the project, particularly in places like Happisburgh or the other riverine environments. <p>(Further details are included in Table 28.2 of this Appendix, Appendix 28.2)</p>	<p>Re. <u>the Geophysical Survey approach</u>: the specific technique (detailed magnetometry) was agreed in consultation with James Albone at NCC HES, and formalised within a survey-specific WSI. The locations for the priority programme of archaeological geophysical survey were directly informed by the DBA work and specifically the aerial photographic and LiDAR data assessment. See Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.</p> <p>Re. <u>Metal Detecting, Field Walking and Earthwork Condition surveys (post-consent)</u>: will be required at targeted locations and will be undertaken in discussion and agreement with James Albone at Norfolk County Council HES. Survey-specific WSIs will be produced and agreed post-consent. See Chapter 28 Onshore Archaeology and Cultural Heritage section 28.1 and the Outline WSI (DCO Document 8.5).</p> <p>Re. <u>Documentary sources</u>. The BGS archive of cores and boreholes will be consulted as part of a project-wide (but targeted) approach to geoarchaeological assessment along the cable route post-consent. See Chapter 28 Onshore Archaeology and Cultural</p>

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Historic England	June 2017 / Written Scheme of Investigation Geoarchaeological Watching Brief	<p>Summary of comments raised:</p> <ul style="list-style-type: none"> WSI to demonstrate a fully joined up approach that captures the often rare opportunity to look at sediments with potential – changing sentences like ‘archaeological samples will be collected where possible’ with ‘archaeological samples will be collected where present’. Dedicated cores for archaeological assessment would be collected so that they could be evaluated and assessed in terms of their archaeological potential. The deposits will need to be evaluated by archaeologists / geoarchaeologists. To coordinate this aspect with the geotechnical investigation to maximise the opportunities of the proposed coring programme and to limit any duplication of effort. Suitable samples to be collected to evaluate the archaeological potential, as this would need to be addressed by the proposed development in order that the impact is understood and mitigated. Can you confirm that a training session or a tool-box style talk would be held with the GI team ahead of this work to ensure that they are aware of the sort of features / deposit types which are of interest? Core samples will be recorded and sampled for archaeological purposes. As the archaeological potential of these deposits needs to be assessed, it seems sensible to collect samples of value to this work at the same time as the geotechnical works to maximise the potential of this programme of works. Seeking confirmation that samples will be 	<p>Heritage section 28.1 and the Outline WSI (DCO Document 8.5).</p> <p>The survey-specific WSI for geoarchaeological monitoring (watching brief) was revised to take account of these comments and the works undertaken on the basis of the agreed methodology between July-August 2017 and November 2017. The results of which are included in Chapter 28 Onshore Archaeology and Cultural Heritage and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6.</p> <p>No deposits resembling the Cromer Forest-Bed were encountered in the boreholes in the Landfall areas. If Cromer Forest-Bed Formations sediments do survive they are likely to be found at a significant depth.</p> <p>(Further details are included in Table 28.2 of this Appendix, Appendix 28.2)</p>

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		evaluated in terms of the presence / absence of any palaeoenvironmental remains, their state of preservation, and their potential, as well as the potential for scientific dating.	
Norfolk County Council HES / Historic England / Broadland District Council / North Norfolk District Council	July 2017 / EPP ETG Onshore Archaeology Meeting Log	<p>Discussions included:</p> <ul style="list-style-type: none"> Update on refined project areas including preferred landfall location at Happisburgh South, zones 5 and 6 for the siting of Cable Relay Station and the refined onshore project substation; Update regarding the onshore archaeological assessment undertaken to date; Visualisation of the CRS infrastructure; Settings implications: three Grade I Listed Churches were highlighted as potentially vulnerable with respect to their setting as a result of the CRS element of the project, raised by NCC HES and North Norfolk District Council. The Churches in question were the Church of St. Mary, Happisburgh (11), the Church of All Saints, Walcott (12) and the Church of St. Peter, Ridlington (13). Broadland District Council raised no concerns with regards to settings specific to the Broadland District on the grounds that no above ground infrastructure would be present in the District; The need for heritage-specific viewpoints for select Grade I Listed Buildings to support a settings assessment; Approach to selection of priority geophysical survey areas and methodology for geophysical survey; Update on geoarchaeological assessment; and Overview of offshore archaeological considerations. 	<p>Re. <u>the Geophysical Survey</u>: a meeting was arranged for 6th September 2017 to discuss methodologies and details, summarised as follows:</p> <ul style="list-style-type: none"> The specific technique (detailed magnetometry) was agreed in consultation with James Albone at NCC HES, and formalised within a survey-specific WSI. <p>Geophysical survey is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.5.2, 28.6 and 28.7.1.</p> <p>Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a Cable Relay Station from the project.</p> <p>Re. <u>settings implications</u>: the three Grade I Listed Churches were initially included within the settings assessment, prior to the above decision made. See Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.2.2 for more detail.</p> <p>Re. <u>heritage specific viewpoints in relation to the onshore project substation</u>: viewpoints have been agreed in consultation with James Albone at NCC HES and Will Fletcher at HE. Results have been fed into the settings assessment and incorporated in the chapter (See Chapter 28 Onshore Archaeology and Cultural</p>

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			Heritage sections 28.6.2.2, 28.7.4.3 and 28.7.5.1). (Further details are included in Table 28.2 of this Appendix, Appendix 28.2)
Norfolk County Council HES	6 th September 2017 / Priority Archaeological Geophysical Survey / Heritage Settings	A telecon-style meeting was set up in order to predominantly discuss the priority archaeological geophysical survey areas identified, timescales leading up to the appointment of a geophysical survey contractor and commencement of survey works.	<p>Re. Priority Archaeological Geophysical Survey. It was noted that detailed magnetometry would be the only feasible technique (at this stage) given the large-scale nature of the project and survey area to be covered. Albeit that magnetometry can be variable depending upon the geology. Each area outlined for priority geophysical survey was discussed and agreed with James Albone at NCC HES on an area by area basis, and certain amendments made as a result of discussions.</p> <p>It was agreed that the methodology and approach to the priority programme of archaeological geophysical survey would be detailed in a survey-specific WSI, and submitted to NCC HES for review and approval prior to survey works commencing,</p> <p>Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS (CRS) from the project. Settings assessment and options with respect to the onshore project substation were also discussed. Working with Necton Wood and woodland to the east was believed and generally agreed to provide effective natural screening.</p>

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Norfolk County Council HES	20 th September 2017 / Priority Archaeological Geophysical Survey Written Scheme of Investigation	<p>JA reviewed the WSI for the geophysical survey, stating <i>"Overall I'm happy with the content but there are a few minor additions required before we formally approve it:"</i></p> <ul style="list-style-type: none"> <i>Either Royal HaskoningDHV or the geophysical survey contractor will need to contact the Historic Environment Record to obtain an HER Event number for the survey (The HER can be contacted via heritage@norfolk.gov.uk).</i> <i>Please can GIS shapefiles of the survey areas be supplied with the event number request?</i> <i>Copies of the geophysical survey report should be supplied separately for the HER (as x1 unbound hardcopy and a PDF/A on CD) as well as it being included in the application submission documents."</i> <p>In addition, JA noted that <i>"I can confirm that we will accept a hand-held geophysical survey methodology in this case."</i></p> <p>JA also noted that <i>"there is nothing additional that has come up that merits geophysical survey at this stage."</i></p> <p><i>"However, there appear to be three sites with early Anglo-Saxon brooch finds that are worth bearing in mind as potential cemetery locations (NHER 60320, NHER 56476, NHER 56255).... As previously discussed, the only way to try to identify the location of the cemeteries would be by a metal detector survey. It is worth targeting these three fields at the pre-application stage, if possible, to see if the finds evidence can be refined at all."</i></p>	<p>The WSI for Priority Archaeological Geophysical Survey was updated accordingly.</p> <p>The initial informative stages of mitigation works (post-consent) include provision for metal-detecting (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2). Such surveys will be undertaken in agreement with NCC HES and HE in order to further establish specific and bespoke mitigation requirements on a case-by-case / area-by-area basis, as required, and are provisionally set-out in the Outline WSI (DCO Document 8.5), and will be subsequently detailed in a survey-specific WSI (post-consent).</p>
Breckland District Council	PEIR November 2017	Policy DC17 of the Core Strategy ensures that Breckland Council will preserve and enhance all designated and non-designated assets, gardens and sites of	The Impact Assessment has been developed as part of a staged approach to assessment and is provided in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7. The conclusions

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		archaeological interest. At this stage a full assessment of the impact has not been carried out and there are no photomontages/visualisations of the proposed infrastructure from a historic environment perspective.	outlined in the Impact Assessment have been based on a thorough desk-based review, as well as survey results (aerial photographic and LiDAR data assessment, geophysical survey and archaeological / geoarchaeological monitoring of geotechnical ground investigations). Site visits have been undertaken and LVIA tool-kits (e.g. ZTVs and photomontages) have been used with respect to heritage setting. The approach to heritage specific viewpoints was agreed with HE and NCC HES as part of the pre-application consultation process.
Breckland District Council	PEIR November 2017	As with the landscape impact more visual information is required and it is hereby requested that Historic England and the Historic Buildings Officer at Breckland Council are consulted on the additional work to be undertaken before the commencement of this so that appropriate viewpoints can be agreed. Continuous consultation will assist in generating suitable mitigation measures prior to the submission of the Development Consent Order application.	<p>The application and assessment of heritage-specific viewpoints has been a point of discussion throughout the more recent stages of the EPP, with a particularly detailed discussion undertaken at the ETG meeting held on the 24th January 2018, attended by Norfolk County Council HES, Historic England, North Norfolk District Council and the National Trust. A number of 'heritage-specific' viewpoints were identified in consultation with and feedback from NCC HES and HE and recommended for assessment, as follows:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints and others have informed the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.5 and 28.7.6).</p>
Breckland District Council	PEIR November 2017	More information is required around effects on the historic environment.	As part of a staged approach to assessment, additional survey data (e.g. from geophysical survey and archaeological / geoarchaeological monitoring of geotechnical ground investigations) have been subject to review and incorporation into Chapter 28 Onshore Archaeology and Cultural Heritage.
Broadland District Council	PEIR November 2017	The District Council has agreed that NCC will provide comments on behalf of the District Council in respect of	Noted. No action required.

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		archaeology.	
CPRE	PEIR November 2017	Overwhelming case for HVDC to be taken as an embedded mitigation measure.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a 100m corridor and CRS from the project.
CPRE	PEIR November 2017	The advantages of HVDC transmission are obscured by the misuse and interpretation of the Rochdale Envelope by progressing HVAC and HVDC together within the envelope through the overall planning process and beyond. If the company wishes to pursue both options then it should do so in a way that makes clear the differences between the two systems.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a 100m corridor and CRS from the project.
CPRE	PEIR November 2017	Re: Plate 5.16 and 5.17: This gives a useful representation but does not give a clear picture of the intrinsic differences between DC and AC in the cabling process, because there are two projects running side by side. However, the print copy of the Vanguard Consultation Summary Document does give the cable easement of Vanguard alone, and the small print is legible in this (page 36, Cable easement, Norfolk Vanguard only). The temporary working strip is 35m for DC and 50m for AC; and for the permanent easement is 13m for DC and 25m for AC. (Orsted provide no data, but using a proportionate factor allowing for a 2400 MW project rather than 1800 MW for Vanguard and Boreas, then we estimate Orsted has a temporary strip of 47m for DC and 67m for AC; and the permanent easement of	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a 100m corridor from the project.

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		17m for DC and 33m for AC). These differences are significant in the land take over 55-60 km of cabling route, and HVDC would also allow for increased wriggle room; for example some separation from farmland ponds, reduced take of hedgerows, more space from a historic building and/or its setting, less impinging on a site of archaeological interest, and avoid impacting on an underground water flow. HVDC offers a much higher level of baseline cumulative mitigation along the cabling from shore to the national grid than can be achieved by HVAC.	
CPRE	PEIR November 2017	There is scope for avoiding removal of historic hedges, indicated from maps and an average of six or more species in 30m lengths. It is hoped there could be more use of HDD as the primary method to lessen impacts.	Mitigation measures outlined in relation to historic hedgerows and boundaries are included (in overview) in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2 and referred to, where relevant in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5. Certain hedgerows and boundaries will be subject to survey as part of a post-consent earthwork condition survey, and subject to enhanced backfilling and reinstatement provision. On the basis of these surveys, certain earthworks, boundaries and hedgerows may be determined as requiring a higher level of reinstatement. This initial informative stage of mitigation and subsequent mitigation measure (where required) is set-out in the Outline WSI (DCO Document 8.5) and will be further detailed in a survey-specific WSI for earthwork condition survey post-consent.
East Rushton Parish Council	Landscape and Visual	Happisburgh Lighthouse dominates and the church towers of Happisburgh and East Ruston can be seen from various viewpoints. The site is surrounded by traditional properties, with no modern builds. The view is untainted by large farm buildings, industrial units or pylons and telegraph poles are only seen in the distance.	These heritage assets were considered as part of an initial settings assessment undertaken in relation to the proposed siting of the CRSs. Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally

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			sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	Traditional farmhouses, cottages and barns, predominantly Norfolk red brick and flint, with pantile or thatch roofs, surround 6a.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	Noise and vibration: Surrounding site 6a are historic properties built in the local vernacular; of flint and Norfolk red brick with lime mortar walls. These do not have normal foundations nor the resilience of bricks and cement mortar and are very fragile if not treated carefully and respectfully.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	The bridleway PROW BR35 from Fox Hill meets up with Munn's Loke to the east, forming a network of tracks valued by walkers, horse riders, runners and cyclists of all abilities... Maps show that these tracks date back to at least the early 1800's but the archaeological finds in the adjoining field suggest they might be much more ancient. Historically the tracks connected the various villages and churches and they are still used by locals today.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	CRS 6a: This is a beautiful Norfolk landscape with a mix of open farmland, woodland, hedgerows; the dominant landmark is Happisburgh Lighthouse and all surrounding	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally

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		properties are vernacular in style. Several local churches can be seen depending on the viewpoint.	sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	It is understood that there is evidence of archaeology on this [CRS 6a] site.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
East Rushton Parish Council	PEIR November 2017	6a is an area of open, mixed countryside, with great visual appeal. The area is surrounded by vernacular buildings, typically Norfolk red brick and flint, with pantile or thatch roofs and these are an integral part of this typical Norfolk landscape. Many benefit from open views that will be compromised either by the relay station itself or by artificial tree planting, driven by the need to screen, rather than the natural aesthetics of the landscape.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Happisburgh Parish Council	PEIR November 2017	The Council will not accept AC as an option, and recommends only DC as a possibility on the basis that AC is simply too disruptive to the fragile land in the village.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a 100m corridor and CRS from the project.
Happisburgh Parish Council	PEIR November 2017	The Council urges Vattenfall not under any circumstances to consider Short Drill rather than Long Drill.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
			sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy a Long Drill at the landfall.
Happisburgh Parish Council	PEIR November 2017	Any lighting of CRS should be considerate - 1. Fully shielded (enclosed in full glass cut-off fittings) 2. Directed downwards (mounted horizontally to the ground and not tilted upwards) 3. Switched on only when needed (no dusk to dawn lamps) 4. White light low energy lamps (Philips Cosmopolis or fluorescent) and not orange or pink sodium sources).	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Historic England	PEIR November 2017	There is also an area of cross over between on- and off-shore methodologies and heritage and visual impact methodologies and the LVIA report needs to consider cumulative impacts as well as the differences between landscape and seascape where it is relevant to a heritage asset, and how this will be delivered in the resulting ES.	Chapter 28 Onshore Archaeology and Cultural Heritage has been partly informed by the results of the LVIA and Intertidal and Offshore Archaeology and Cultural Heritage chapters, where relevant. Correlation between the approaches adopted by these topics has been ensured through on-going communication during the Impact Assessment process and is reported on in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7, 28.8 and 28.9, as necessary.
Historic England	PEIR November 2017	There is the potential for deposits / remains associated with the Cromer Forest Bed Formation (CF-bF) to be disturbed and / or damaged by the process of bringing the cables onshore. If significant features / remains are identified then we would expect to see a suitable mitigation strategy established in the WSI.	In order to ascertain the presence / absence of deposits of palaeoenvironmental potential such as the CFB Formation within the project boundary, two phases of geoarchaeological monitoring (watching briefs) of onshore engineering ground investigation works have been undertaken. No deposits resembling the CFB were encountered in boreholes assessed as part of the geoarchaeological brief. Data assessed indicates that if CFB do survive, they are likely to be found at significant depth. The maximum target depth of drill for trenchless techniques is 20m (relative to mean sea level). On this basis, it has been concluded in consultation with HE and NCC HES that impacts upon geoarchaeological / palaeoenvironmental remains at the landfall

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			are likely to be negligible (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.4.4 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6).
Historic England	PEIR November 2017	It should be noted that there is the potential for the bentonite slurry used in the HDD process to breakout and spread into/coat archaeological deposits, features and materials. Information would need to be provided regarding the chemistry, pH and composition of the drilling fluid used. The impact that these approaches would have on the archaeology would also need to be considered, particularly where the drill will pass under significant and in-situ archaeological remains. Things that need to be considered include any physical damage, changes to the burial environment and the potential for the slurry to impact on site preservation.	The potential impact of drilling fluid breakout associated with Horizontal Directional Drilling (HDD) is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5.5.
Historic England	PEIR November 2017	In 5.4.12.1.1 (paragraph 159) the heat lost per meter of HVAC cable is an important aspect to consider in terms of the historic environment, as heat may have a damaging effect on any waterlogged archaeological remains that may be present, such as palaeoenvironmental remains and waterlogged wood. Similar comments apply for HVDC cables.	The potential impact of heat loss associated with the onshore cables is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.6.2.
Historic England	PEIR November 2017	We note that 5.5.1 discusses the onshore cable landfall and corridor construction method, which will require the use of HDD and excavation. The construction of the transition pits, link boxes (Section 5.5.1.3), temporary construction compounds (Section 5.5.2.2.4, paragraph 311) and the cable corridor (Section 5.5.3) will all need to be subject to analysis and archaeological mitigation.	The worst case scenario with respect to Onshore Archaeology and Cultural Heritage has been set out in Chapter 28 Onshore Archaeology and Cultural Heritage and takes into account the construction of these elements within the onshore project area. Mitigation approaches are outlined in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2. Further information regarding the initial informative stages of mitigation and subsequent mitigation strategies are detailed in the Outline

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			WSI (DCO Document 8.5).
Historic England	PEIR November 2017	The project would also need to consider issues such as the impact on palaeo-environmental deposits and changes to drainage and water levels, in particular in relation to the riverine areas.	The impact of the project upon geoarchaeological / palaeoenvironmental remains is considered in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5.4. This section has been informed by two phases of geoarchaeological monitoring (watching briefs) of onshore engineering ground investigation works, undertaken with a view to identifying palaeo-environmental deposits in the landfall area and at key crossing locations. No deposits of geoarchaeological interest were encountered, with results at the landfall indicating that CFB deposits, if present, are likely to be found at significant depth (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6). A scheme-wide approach to Geoarchaeological Assessment / Palaeoenvironmental Survey is proposed post-consent.
Historic England	PEIR November 2017	Geotechnical investigation is also mentioned in Section 5.5.7.1.3 (paragraph 398) as part of the pre-construction works. It would be useful if the information gathered through this work could be shared with the archaeologists contracted for the onshore works as it will contain information of relevance to their work. Ideally, the geotechnical and geoarchaeological teams should collaborate on the design and assessment of the cores to ensure that opportunities are maximised and to reduce the need for duplication of effort. This also applies to the construction of the Necton National Grid Substation (Section 5.5.8).	Chapter 28 Onshore Archaeology and Cultural Heritage has been partly informed by two phases of geoarchaeological monitoring (watching briefs) of onshore engineering ground investigation works (see Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.5.2 and 28.7.5.4 and Appendix 28.6). In addition, the potential for the project to encounter currently unrecorded geoarchaeological / palaeoenvironmental remains will be mitigated by means of implementing the embedded mitigation measures and commitments as set-out in the Outline WSI, which includes reference to a project-wide approach to geoarchaeological assessment / palaeoenvironmental survey which will be established, planned and under-taken post-consent. This will include a provision for archaeological involvement in the planning stages of any subsequent geotechnical data acquisition and the supply of survey results to the archaeologists contracted for the onshore works.

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Historic England	PEIR November 2017	From the evidence presented we have concluded that there are two principle overarching aspects of the project that need to be considered. These are the potential indirect impact of the proposals on the significance of designated heritage through a development within their setting, primarily from permanent structures considered necessary to deliver the project. Secondly there are direct physical impacts on non-designated heritage assets within the cable route, this impact would principally be during the construction phase, although potential impacts during the decommissioning phase are also noted.	Potential indirect impacts are considered in Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5 and 28.7.6. Potential direct impacts are considered primarily in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5. Potential impacts during the decommissioning phase are considered as part of a high-level review in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.7.
Historic England	PEIR November 2017	Our primary concern is that although the PEIR chapter has identified a number of designated heritage assets affected by the new permanent infrastructure, the full assessment of the potential impacts has not yet been completed. This is mainly for the LVIA, where the historic environment is not specifically represented and there are no heritage specific viewpoints. The report has an artificial separation between onshore heritage and on-shore LVIA assessments. Some cross correlation is necessary and the LVIA needs to provide representative viewpoints.	There has been ongoing communication between the LVIA and Onshore Archaeology and Cultural Heritage assessment teams prior to and since the submission of the PEIR. As a result of these discussions, the LVIA has captured a number of heritage-specific viewpoints, the results of which have fed into this assessment (see Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5 and 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).
Historic England	PEIR November 2017	We note that the main new above-ground infrastructures for the project would be the proposed substation at Necton. If the HVAC connection system is used, then a cable relay booster station would also be needed, and that two locations are currently proposed at Ridlington (5a and 6a). We note that Table 28.15 within the PEIR sets out a strategy for further assessing the impact of the proposed above-ground infrastructure	The LVIA has captured a number of heritage-specific viewpoints in relation to the onshore project substation. These have been fed directly into the heritage settings assessment (see Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5 and 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).

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		on the setting of designated (and selected non-designated) heritage assets, and states that the results of which will be submitted in the ES as part of the DCO application. We are generally supportive of the approach taken for the analysis of both these options however as discussed view points and photomontages are needed to support the analysis in this chapter with regards to the impact of these permanent features one the significance of heritage assets through a development within their setting.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Historic England	PEIR November 2017	We would however recommend that the locations of the heritage viewpoints are agreed with historic England prior to the submission of the DCO application. We anticipate that this conversation would also need to include Norfolk County Council, and the Conservation Officers at North Norfolk District Council. We would also expect better integration of historic environment though the chapter's particular good cross referencing between the heritage and LVIA chapters.	<p>The application and assessment of heritage-specific viewpoints has been a point of discussion throughout the more recent stages of the EPP, with a particularly detailed discussion undertaken in the ETG meeting held on the 24th January 2018, attended by Norfolk County Council HES, Historic England, North Norfolk District Council and the National Trust. A number of 'heritage-specific' viewpoints in relation to the onshore project substation were identified in consultation with and feedback from NCC HES and HE and recommended for assessment, as follows:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have informed the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5, 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).</p>
Historic England	PEIR November 2017	We note the visualisations that have been included (see Chapter 29. Landscape and Visual Impact Assessment) and as started above these are not specifically historic environment viewpoints or taken views from key heritage assets. The visualisations do however support	As above, the application and assessment of heritage-specific viewpoints has been a point of discussion throughout the more recent stages of the EPP, with a particularly detailed discussion undertaken in the ETG meeting held on the 24th January 2018, attended by Norfolk County Council HES, Historic England, North

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		<p>our view that that further investigation and consultation is necessary to identify the potential impact upon the significance of assets. We are of the view that more could have been done at this stage to identify those assets where viewpoints would be necessary and those that could be scoped out of further analysis at this stage. We have a particular concern about the powerful presence of the medieval churches in this part of the coastal landscape. They are very prominent features in the landscape and we have argued consistently about the strong inter-relationship and inter-visibility between these churches, which is contributes much to the significance of these assets in setting terms. In particular further work needs to be undertaken to assess the significance of, and impacts upon St Mary's Church at Happisburgh (Grade I listed), St Peter's Church at Ridlington (Grade I listed), and possibly from further field to Walcott and Bacton churches, and the Happisburgh conservation area. Further heritage specific viewpoints may also be required for the scheduled monuments to the east of substation.</p>	<p>Norfolk District Council and the National Trust. A number of 'heritage-specific' viewpoints in relation to the onshore project substation were identified in consultation with and feedback from NCC HES and HE and recommended for assessment, as follows:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have informed the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5, 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).</p> <p>Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project. As such, impacts of the project upon the setting of the medieval churches within the coastal landscape are no longer relevant on the basis that significant above-ground infrastructure in the form of a CRS is no longer required.</p>
Historic England	PEIR November 2017	<p>We are also concerned about the impact of the HVAC booster stations (particularly option 5a) and would note that the open nature of the landscape here means that these new elements will be highly visible. We also note that screening is proposed and again this is noted in LVIA chapter Figure 29.9 (maps 1-3). Given this is a very open landscape the impact of screening may also in itself be harmful, as it would be an alien form in that specific landscape context. That screening could be a</p>	<p>Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.</p>

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		new and harmful element in a landscape was recently agreed at a public appeal.	
Historic England	PEIR November 2017	Chapter 28.6.5 states that geophysical surveys will be carried out as part of the evaluation of the onshore undesignated assets. We would recommend that the most appropriate geophysical techniques are utilised, which in some cases may result in more than one geophysical techniques being applied to a given area. This would maximise the chances of identifying any archaeological features, and hopefully minimise the risk of any unexpected finds.	<p>A standard detailed magnetometry technique was utilised for the acquisition of priority archaeological geophysical survey data (see Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.5), as agreed with NCC HES. Magnetometry was considered the only feasible method at this stage to cover an area of the size proposed for survey, which will allow post-consent trial trenching to be better targeted with a fuller data source. There are currently no plans for the application of alternative geophysical survey techniques as part of the post-consent surveys (initial informative stages of mitigation work). Alternative survey techniques will, however, be considered on a case-by-case basis where magnetometry was not found to be effective to the circumstances of previously recorded potential sub-surface features (also taking into account the geological conditions and soil types) and will only be employed where required on a case by case basis, in a manner that is both proportionate and appropriate.</p> <p>The application of any such methods will be outlined in a survey-specific WSI post-consent. Other forms of post-consent survey (e.g. metal detecting / field walking) will also be undertaken as initial informative stages of mitigation to further maximise the chances of identifying archaeological features that may not be visible on geophysical survey data. Such surveys will be undertaken in agreement with NCC HES and HE in order to further establish specific and bespoke mitigation requirements on a case-by-case / area-by-area basis, as required, and set-out in the Outline WSI (DCO Document 8.5) and detailed in survey-specific WSIs.</p>
Historic England	PEIR November 2017	In section 28.7.1.1, paragraph 113: it is suggested that micro-siting will be used where possible to avoid undesignated heritage assets, but where this is not	Reference to Historic England's 'Preservation of Archaeological Remains' (2016) guidance is included in the chapter. Reference to this guidance is also included in the Outline WSI (DCO Document

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		possible the remains will be archaeologically investigated and recorded, referred to as preservation by record (paragraph 114). We believe that this mitigation strategy is sensible and appropriate but recommend that reference is made to the Historic England 'Preservation of Archaeological Remains' (2016) guidance, as this sets out a process/decision tree to help guide decisions about this process (see https://historicengland.org.uk/images-books/publications/preserving-archaeologicalremains/).	8.5).
Historic England	PEIR November 2017	We would also recommend that the maximum time that any archaeology will be exposed for following discovery or after the topsoil has been stripped should be included in any subsequent WSIs to ensure that archaeology is not left exposed to the elements for an extended period of time. Archaeological sites can suffer from weathering which can lead to the damage and/or loss of features/deposits. Heritage crime is also a significant issue particularly illegal metal detecting that is targeted towards soil stripped archaeological sites. Sites must not be left stripped for significant periods of time and adequate security and protection needs to be put in place at this stage of the project to mitigate this.	Reference has now been included as part of the Outline WSI (DCO Document 8.5).
Historic England	PEIR November 2017	The impact that the development could have on geoarchaeological and palaeoenvironmental remains is discussed in Section 28.7.4.4, which includes consideration of the potential damage to, and loss of remains, as well as changes to hydrology / water levels in a given area. This may lead to the desiccation and drying out of wetland deposits and associated waterlogged archaeological or palaeoenvironmental	Noted.

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		remains. We recognise this is an important consideration in this area and agree that this is particularly important at the landfall location and at areas adjacent to the low lying river valleys. The impact that the development works may have on any archaeological deposits or features of interest cannot be known without carrying out evaluation works; the PIER has therefore adopted the worst case scenario for this purpose. We support of this approach, and agree about the heritage significance of any palaeoenvironmental and geoarchaeological evidence for the Lower Palaeolithic (Section 28.7.4.4, paragraph 204). In addition, we agree with the conclusion that the potential impacts of the development would be 'major adverse' in the absence of mitigation archaeology. We would consider this to be a significant impact in EIA terms.	
Historic England	PEIR November 2017	The development of deposit models and palaeoenvironmental assessments following the proposed programme of geoarchaeological monitoring would help to understand the deposits and their potential, which in turn will help inform subsequent mitigation strategies. This needs to be integrated into a follow up strategies and results disseminated.	The geoarchaeological monitoring and assessment work to date has been undertaken by Wessex Archaeology. The details of the results are presented in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6. and have informed the proposed mitigation strategies set out in Chapter 28 Onshore Archaeology and Cultural Heritage and the Outline WSI (DCO Document 8.5). These results to date are to be disseminated to the AHOB group.
Historic England	PEIR November 2017	Chapter 28.10 (paragraph 248) states that an embedded mitigation strategy, that would seek to minimise the impact of the development on the historic environment, in particular the archaeological remains, will be developed following a programme of assessment survey and evaluation. We support this, and note that the	Additional geoarchaeological coring work is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5. The project will implement the embedded mitigation measures and commitments as set-out in the Outline WSI (DCO Document 8.5), which includes reference to a project-wide approach to geoarchaeological assessment / palaeoenvironmental survey which

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		results of this work are pending. We also note other assessments have been proposed (e.g. geophysical survey, metal detecting etc.) in order to fully assess the heritage significance of non-designated and potential heritage assets. The evaluation and mitigation requirements post-consent summarised in paragraph 249 and Table 28.15 would seem appropriate, but it may be useful to include the potential for additional geoarchaeological coring work where necessary as a precaution, just in case features are identified that need to be sampled using this approach.	will be established, planned and under-taken post-consent.
Historic England	PEIR November 2017	The report acknowledges the potential for previously unidentified heritage assets within the onshore cable route and at the proposed sub-station sites. A programme of pre-application archaeological work also proposed and we note that the results will be included in the Environmental Statement submitted with the DCO application. We would want to ensure that this includes the evidence from the geotechnical surveys, particularly the Happisburgh landfall site, so that this evidence can be integrated into the on-going mitigation and dissemination strategy. We also note a range of mitigation options for buried and above-ground archaeological remains are set out in the chapter, and the WSI for the pre- and post-consent mitigation would need to be developed in consultation with Historic England and with Norfolk County Council Historic Environment Service. We also note that Appendix 28.1 (Archaeological Desk-Based Assessment), Annex 28.1.2 the non-designated assets gazetteer does not appear to be the correct version?	Two phases of geoarchaeological monitoring (watching briefs) of onshore engineering ground investigation works have been undertaken, the results of which inform this ES chapter (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6). The overarching outline summary details and principles of the post-consent initial informative stages of mitigation work are set out in the Outline WSI (DCO Document 8.5). Annex 28.1.2 (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1) has been rectified for the DCO application.

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Historic England	PEIR November 2017	We also note that a number of historic hedgerows will be removed as part of the cabling works. One problem noted with mitigation strategies of this type is that they focus on the spaces between the field boundaries, and not the boundaries themselves. Although the HLC assessment (see figure 28.3) notes the apparent age and character of the landscape it is known from recent research that these boundaries are often much earlier. This project will require the removal of a number of these hedgerows throughout the cable corridor which would provide an opportunity to characterise and date historic hedgerows. This is a regional research question and this needs to be considered in the ES and a mitigation strategy put in place.	Mitigation measures outlined in relation to historic hedgerows and boundaries are included (in overview) in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2 and referred to, where relevant in section 28.7.5. Certain hedgerows and boundaries will be subject to survey as part of a post-consent earthwork condition survey, and subject to enhanced backfilling and reinstatement provision. On the basis of these surveys, certain earthworks, boundaries and hedgerows may be determined as requiring a higher level of reinstatement. This initial informative stage of mitigation and subsequent mitigation measure (where required) is set-out in the Outline WSI (DCO Document 8.5) and will be further detailed in a survey-specific WSI for earthwork condition survey post-consent.
Historic England	PEIR November 2017	LVIA chapter: We note the details 29.2 paragraph 3. As discussed above we are of the view that further visualisations are needed, and that these are specifically produced to illustrate the views to and from designated heritage assets, and other historic environment features. Images are required for both of the CRS site options and for the substation, in particular views that provide a representative assessment of St Peter's Church, Ridlington, All Saint's Church, Walcott, and St Mary's Church, and from the monuments to the south east of Necton.	<p>A number of 'heritage-specific' viewpoints have been identified in consultation with and feedback from NCC HES and HE and recommended for assessment, as follows:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have informed the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5, 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7)</p> <p>'Heritage-specific' viewpoints in relation to the CRS site options are no longer required for inclusion. Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is</p>

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			to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
N2RS	PEIR November 2017	Concerns about historic and vernacular buildings; in terms of vibration and visual impact.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
National Trust	PEIR November 2017	The route passes through land which is inalienable and for this reason the Trust would not be supportive of any above ground structures within the Blickling estate.	Noted. Norfolk Vanguard Limited has made the commitment that no above ground structures will be installed within National Trust land and Blickling Conservation Area. Should a link box be required within this section of the cable route, it will be buried to surface level.
National Trust	PEIR November 2017	The Trust is however concerned about the impact of the proposal upon potential archaeological deposits and this has been considered by our archaeologists...The propose route through the estate measures around 4.5km in length... The topographical and geological setting of the immediate area around the Blickling corridor is ideal for prehistoric transient activity and settlement and the location within a river valley also carries high potential for prehistoric ceremonial and funerary activity. Around Silvergate and Abel Heath where the corridor crosses the estate are a number of ring-ditches (likely representing Bronze Age funerary barrow monuments) as well as an extremely large ring-ditch of a probable later prehistoric ceremonial monument and a number of other probable prehistoric	The potential for sub-surface archaeological remains to be present within the cable route has to date (pre-consent) been informed by a staged approach to assessment and survey, including desk-based research (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1), aerial photographic and LiDAR data assessment (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.1, Annex 28.1.3), a priority programme of targeted archaeological geophysical survey (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.5) and geoarchaeological monitoring of engineering-led ground investigation works (Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6). The potential for sub-surface remains will further be informed by additional survey and evaluation (initial informative stages of mitigation work) to be planned, agreed and undertaken post-consent. This will be followed by additional

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		trapezoidal enclosures. To the west of this adjacent to the Oulton Belt of woodland, the corridor also crosses and area of linear enclosure likely to be Roman or medieval field systems and activity. Around Silvergate, there is considered to be medieval settlement evidence predating the existing houses whilst to the east where the corridor enters the Blickling Estate boundary, there is a known post-medieval brick kiln. It is important to note that the cropmark data is by no means a complete record of all buried archaeological remains and should be used as an indicative guide to the potential for archaeological activity within the area.	mitigation measures and approaches, as and where required (see Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.2 and 28.7.5 and the Outline WSI – DCO Document 8.5). Ongoing consultation and engagement with the National Trust Estate Manager and Archaeologist(s) will be maintained at and through the post-consent, pre-construction and construction stages, and archaeological approaches and requirements will be agreed with the National Trust, alongside NCC HES and HE.
National Trust	PEIR November 2017	It is important that the NT work collaboratively with the County Planning Archaeologist as well as the developer to achieve a suitable and appropriate methodology for the archaeological work to be undertaken at the Blickling estate in advance of the proposed development.	Consultation has been undertaken with the National Trust at the ETG meeting on the 24 th January 2018 and as part of an additional meeting held specifically in relation to the National Trust's interests on the 13 th March 2018 (detailed below). It is understood that the National Trust also held a meeting with James Albone (NCC HES) on the 5 th April 2018 to discuss archaeological survey requirements for the project within National Trust land. The results of these meetings will further inform the nature of required initial informative stages of mitigation works to be undertaken post-consent within the National Trust land and have been provisionally referenced within the Outline WSI (DCO Document 8.5), where relevant.
National Trust	PEIR November 2017	The corridor through the estate should first be subjected to geophysical survey and a programme of field walking and metal-detecting. (Saxon cemetery sites, for example are often found by metal detecting and fieldwalking).	The proposed initial informative stages of mitigation works include provision for the acquisition of additional geophysical survey data, field walking and metal-detecting surveys (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2). Such surveys will be undertaken in agreement with NCC HES, HE and the National Trust in order to further establish specific and bespoke mitigation

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			requirements on a case-by-case / area-by-area basis, as required, as provisionally set-out in the Outline WSI (DCO Document 8.5) and to be detailed further in survey-specific WSIs, post-consent.
National Trust	PEIR November 2017	On the basis of the geophysical results, a systematic trench evaluation should be conducted within the corridor of up to 5% of the total area, targeting specific anomalies and/ or blank spaces to test the nature, extent and date of the buried archaeological remains. The results of the geophysics and trench evaluation will help determine those areas in need of full excavation which will preserve by record any significant remains which will be lost or destroyed by the proposed development.	The post-consent initial informative stages of mitigation work includes for a programme of project-wide (and targeted) archaeological trial-trenching (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2). The overarching outline summary details and principles of the post-consent initial informative stages of mitigation work are also set out in the Outline WSI (DCO Document 8.5) prepared for Onshore Archaeology and Cultural Heritage.
National Trust	PEIR November 2017	The NT have a duty to investigate fully any significant remains and in line with this, it would be imperative to ensure that significant archaeological remains are excavated to a high standard and importantly, are excavated in their entirety where necessary. This would include, for example, if the corridor bisected a Bronze Age burial mound, then it would be essential to widen the excavation area to encompass the entire mound.	The post-consent initial informative stages of mitigation work will be followed by additional mitigation measures and approaches, as and where required, on a case-by-case and area-by-area basis. The extent of any required archaeological excavation areas will be agreed in consultation with NCC HES, HE and the National Trust. The width of excavation areas will, however, be set and limited by the order limits of the DCO, as well as other factors.
National Trust	PEIR November 2017	NT CPI objectives to better understand our archaeology and heritage and its significance in order to provide this information to future generations and better inform decisions which will directly or indirectly affect our heritage. To achieve this, a systematic programme of geophysics and fieldwalking/metal detecting should be conducted in an agreed area around Silvergate and Abel Heath where medieval activity likely pre-dates the existing settlement, but also where ancient, prehistoric	The initial post-consent informative stages of mitigation works include provision for field walking and metal-detecting (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2). Such surveys will be undertaken in agreement with NCC HES, HE and the National Trust (when within the confines of the Blickling Estate) in order to further establish specific and bespoke mitigation requirements on a case-by-case / area-by-area basis, as required.

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		activity undoubtedly extends across the wider landscape as suggested by the visible cropmarks. In order to fully understand any remains exposed and excavated within the corridor, it is important to demonstrate where possible how these relate to the wider landscape.	
National Trust	PEIR November 2017	The information above has been written as a basic guide to the NT archaeological requirements at Blickling and further consultation for any archaeological investigations should be sought, working in conjunction with the County Planning Archaeologist, the NT planning and archaeology consultants and the developer.	Consultation has been undertaken with the National Trust at the ETG meeting on the 24 th January 2018 and as part of an additional meeting held specifically in relation to the National Trust's interests on the 13 th March 2018 (detailed further below). It is understood that the National Trust also held a separate meeting with James Albone (NCC HES) on the 5 th April 2018 to discuss archaeological survey requirements for the project within National Trust land.
Necton Parish Council	PEIR November 2017	Chapter 28, figure 28.2 shows that the National Grid Temporary Works Area at Necton will significantly overlap an archaeological site including the recorded area of a medieval moat. We would expect the Developer to alter the works area to ensure there is no disturbance to this site.	In order to minimise the interaction between the works and AP 1 / RHDHV 1015 (potential sub-surface remains of a moat of possible medieval date and associated ditches, boundaries and enclosures), this feature has been subject to direct consideration as part of the iterative design process which sought to avoid this feature to the greatest degree possible, within the confines of engineering and other constraints. As such, interaction between the works in this area and the recorded extent of the feature is now much reduced and minimal in its overlap (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5).
Norfolk Coast Partnership	PEIR November 2017	We anticipate that some of the construction and final infrastructure may be visible from the Paston area of the AONB, particularly if AC technology is used and site 5a is selected for the CRS. Thus we suggest the use of DC technology (to avoid the need for a CRS) and/or the selection of site 6a (which is further from the AONB boundary) is preferable.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Norfolk County	PEIR November	Ridlington - the photomontages within Chapter 29 of the	Norfolk Vanguard Limited has reviewed consultation received and

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Council	2017	PEIR reveal issues that need to be further investigated prior to the completion of the full ES. In particular, viewpoint 1 for CRS Option 5a shows that the proposed infrastructure would affect the view towards St Mary's Church at Happisburgh (Grade I listed) from a location close to St Peter's Church at Ridlington (Grade I listed). The medieval churches in this part of the coastal landscape are very prominent landscape features and inter - visibility between them has been identified as forming part of their combined setting and significance.	in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Norfolk County Council	PEIR November 2017	It is felt that further evidence, in terms of photomontages / visualisations, is needed in respect of the proposed CRS near Ridlington and that this will need to be covered and addressed in the OLEMP (see detailed Historic Environment comments in the Appendix). The location of the proposed CRS will need to avoid / minimise the impact on the setting and inter - visibility of the local historic churches in the area.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Norfolk County Council	PEIR November 2017	Chapter 28 of the PEIR provides baseline data about the historic environment implications of the onshore cable route and its associated infrastructure. Two key aspects are considered; (a) the potential indirect impact of the proposals on the setting of designated heritage assets - which is principally relevant to the construction and operation phases of the project – and (b) the physical impact on undesignated heritage assets with archaeological interest – principally during the construction phase. Potential impacts during the decommissioning phase are also considered.	Noted. No action required.
Norfolk County	PEIR November	The onshore above-ground infrastructure for the project	A number of 'heritage-specific' viewpoints in related to the

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Council	2017	includes a proposed substation at Necton and, if a HVAC connection is used, a CRS for which two site options are currently proposed at Ridlington. The PEIR chapter has identified a number of designated heritage assets (including scheduled monuments, listed buildings, conservation areas and designated parks and gardens) which may have their settings affected by the proposed infrastructure for the project but does not carry out a full assessment of the impact at this stage. Some photomontages / visualisations of the proposed infrastructure have been included in Chapter 29 (Landscape and Visual Impact Assessment) but these have not been produced specifically from a historic environment perspective.	<p>onshore project substation have been identified in consultation with and feedback from NCC HES and HE and have been included within the assessment. These include the following:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have been included within the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.7.5, 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).</p> <p>‘Heritage-specific’ viewpoints in relation to the CRS site options are no longer included. Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK’s National Grid and this removes the need for a CRS from the project.</p>
Norfolk County Council	PEIR November 2017	Chapter 28 outlines a programme of pre-application archaeological work, the results of which will be included in the ES submitted with the DCO application. This includes geotechnical surveys (including at the Happisburgh landfall site), and targeted geophysical surveys which are currently being undertaken along the cable route and at proposed infrastructure / mobilisation sites. A range of post-consent mitigation options for buried and above-ground archaeological remains are also set out. The programme of pre-application archaeological evaluation and post-consent mitigation has been developed in consultation with	<p>The geophysical survey results from the priority programme are detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.5 and discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5 (where relevant).</p> <p>The geoarchaeological monitoring results are detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6 and also discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5 (where relevant).</p> <p>The range of post-consent mitigation options are outlined in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2 and set-out further in the Outline WSI (DCO Document 8.5).</p>

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		Norfolk County Council Historic Environment Service and Historic England.	
Norfolk County Council	PEIR November 2017	Vattenfall and their heritage consultant (Royal HaskoningDHV) should continue to assess the setting of the designated heritage assets (and selected non-designated heritage assets) that may be affected by the proposed CRS. This assessment should include further heritage-asset specific visualisations to be included in the ES and should be carried out in tandem with any further assessment of wider landscape impact issues. It is requested that the locations of the visualisation viewpoints are agreed with Norfolk County Council, Historic England and the Conservation Officers at Breckland Council / North Norfolk District Council ahead of the assessment taking place and that the results, and proposed mitigation measures, are discussed with these consultees prior to the submission of the DCO application.	<p>A number of onshore project substation related 'heritage-specific' viewpoints have been identified in consultation with and feedback from NCC HES and HE and assessment as part of the ES. These include the following:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have informed the heritage settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2, 28.7.5 and 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).</p>
Norfolk County Council	PEIR November 2017	Vattenfall and their heritage consultant (Royal HaskoningDHV) should also continue to liaise with Norfolk County Council Historic Environment Service and Historic England and other key stakeholders (e.g. AHOB) regarding the potential physical impact on buried and above-ground archaeological remains. It is requested that this includes discussion of the geotechnical and geophysical survey results and the proposed mitigation measures prior to the production of the full Environmental Statement for the DCO application.	<p>Consultation with various key stakeholders is outlined in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.3 and detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.2.</p> <p>The geophysical survey results are detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.5 and discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.3 and section 28.7 (where relevant). The geoarchaeological monitoring results are detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6 and also discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5.</p> <p>The results (where available at the time) from these surveys were</p>

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			discussed in the ETG meeting held on the 24 th January 2018, attended by Norfolk County Council HES, Historic England, North Norfolk District Council and the National Trust.
Norfolk County Council	PEIR November 2017	<p>Further visualisations produced from a historic environment perspective are required for both of the CRS site options and the substation site. Specifically, for CRS Option 5a. The County Council request that the following views are included in the additional work;</p> <ul style="list-style-type: none"> • View from Bachelor's Lane to the NW of St Peter's Church, Ridlington looking SE to include the church and CRS Site Option 5a. • View SW from All Saint's Church, Walcott toward CRS Site Option 5a. • View SSW from Rookery Farm Road close to the junction with Coast Road, including All Saints' Church Walcott and CRS Site Option 5a. • CRS Site Option 5a Viewpoint 7 should be supplemented with a view from the top of the tower of St Mary's Church in Happisburgh as this is opened to the public. This should also be included for CRS Option 6a. • View from the top of the tower of St Mary's Church East Ruston towards the proposed CRS options. 	<p>The identification, capturing and assessment of heritage-specific viewpoints has been a point of discussion throughout the more recent stages of the EPP, with a particularly detailed discussion undertaken in the ETG meeting held on the 24th January 2018, attended by Norfolk County Council HES, Historic England, North Norfolk District Council and the National Trust. A number of 'heritage-specific' viewpoints were identified in consultation with and feedback from NCC HES and HE and recommended for assessment, these include from:</p> <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). <p>These viewpoints have informed the settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.5 and 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7).</p> <p>'Heritage-specific' viewpoints in relation to the CRS site options are no longer required and therefore not illustrated within the ES. Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.</p>
Norfolk County	PEIR November	Table 28.7 within Chapter 28 and Section 28.2.3.2 of the	A commitment to review pre-enclosure maps to further inform

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Council	2017	Desk-Based Assessment (Appendix 28.1) refer to historic map research having been carried out at Norfolk Record Office. While further analysis of cartographic sources for the full Environmental Statement is mentioned, it is important to note that pre-enclosure maps at the Norfolk Record Office (and other relevant repositories) need to be consulted and incorporated into the analysis. For some parts of the route (e.g. Cawston) 17th and 18th century maps are available at the NRO. The information on these maps relating to former land-use and boundaries will be important for the interpretation of the air photo and geophysical survey data.	upon the planning and placement of post-consent archaeological trial trenches has been included within the outline WSI (DCO Document 8.5).
Norfolk County Council	PEIR November 2017	Section 28.6.5.1 of Chapter 28 outlines the proposed mitigation measures for below-ground archaeological remains. Para 99 within this section, which states that other techniques are being considered, needs to reference field-walking as well as metal-detecting (as indicated in Table 28.2).	The initial informative stages of post-consent mitigation works include provision for field walking and metal-detecting (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2). Such surveys will be undertaken in agreement with NCC HES and HE in order to further establish specific and bespoke mitigation requirements on a case-by-case / area-by-area basis, as required, and are initially set-out in the Outline WSI (DCO Document 8.5) and will be further detailed in survey-specific WSIs to be produced in the post-consent stages.
Norfolk County Council	PEIR November 2017	Some amendments to the terminology within the Historic Environment and Cultural Heritage chapter would be beneficial so that appropriate terms can then be applied throughout the project. NCC Historic Environment Service is now using the term 'evaluation' only for pre-determination archaeological works. Any post-consent archaeological work forms part of a mitigation strategy, with survey phases (e.g. further geophysical survey and trial trenching) comprising an initial informative stage of the mitigation work.	The DCO application includes a commitment from the project to undertake a number of additional programmes of survey and evaluation post-consent, referred to throughout Chapter 28 Onshore Archaeology and Cultural Heritage as post-consent initial informative stage(s) of mitigation work.

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Norfolk County Council	PEIR November 2017	There is potential to address some decommissioning impacts on buried archaeological remains at the construction phase if archaeological mitigation through recording takes into account any additional ground-disturbance likely to result from the future removal of structures on the project.	Noted.
Norfolk County Council	PEIR November 2017	In Appendix 28.1 (Archaeological Desk-Based Assessment), Annex 28.1.2 the non-designated assets gazetteer is not the correct table – the designated assets table is repeated in error. The gazetteer of non-designated assets is included separately as Appendix 28.4. However, in this version the RHDHV ID numbering of the entries is not continuous. Comparing this with an earlier version from the draft Desk-Based Assessment it appears that the omitted entries relate to sites that lay within earlier versions of the proposed cable route corridor search area or in the inter-tidal zone. The reason for the omission of the entries needs to be stated.	These errors have been rectified in preparation for the DCO application. As stated by NCC, a number of heritage assets have been omitted from the gazetteers due to being beyond the study area as based on the project design parameters as assessed within Chapter 28 Onshore Archaeology and Cultural Heritage or due to them being considered as part of the Intertidal and Offshore Archaeology and Cultural Heritage chapter. The explanation for these omissions is now stated within Chapter 28 Onshore Archaeology and Cultural Heritage Appendices 28.3 and 28.4.
Norfolk County Council	PEIR November 2017	Table 28.10 within Chapter 28 lists the Areas of Possible Archaeological Interest as Groups. It would be useful for the ES if these could be shown on maps of the route as well – which is not currently the case. The addition of Norfolk HER numbers in this table would also make cross-referencing the information much easier. There are a number of comments on the individual Groups listed in this table as follows; Group 1. RHDHV 1015 is a very clear cropmark of a medieval moat with associated features newly recorded by the air photo survey (Site AP1). It should be	The Areas of Archaeological Interest as presented in the PEIR chapter were considered as part of a preliminary assessment of areas of potential archaeological interest as indicated by data available at the time of the PEIR submission. Since the PEIR submission, priority archaeological geophysical survey data has been acquired, enabling a more site-specific approach to be undertaken. The baseline environment in relation to non-designated heritage assets, as presented in Chapter 28 Onshore Archaeology and Cultural Heritage, now accounts for potential sub-surface archaeological remains (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.3.1) and above ground non-designated heritage assets (Chapter 28 Onshore Archaeology and

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		<p>considered to have Medium – High significance rather than just Medium (see also below).</p> <p>Group 6. RHDHV ID number (1180) is missing.</p> <p>Group 14. Is this group correct as the two heritage assets listed are 1.2km apart? Should it actually include RHDHV 411 (a burnt mound) rather than RHDHV 1379 (lime kiln)?</p> <p>Group 24. RHDHV 968 should be 698.</p> <p>Group 49. Includes RHDHV 2955. This number is higher than those listed in the gazetteer and is presumably an error.</p> <p>Group 52. Earthwork bank RHDHV 1148 is probably associated with a parish boundary and should therefore be considered as being of Low - Medium significance rather than just Low.</p> <p>Group 54. It is possible that the cropmark features in this group will be associated with buried archaeological remains associated with settlement. As such the (worst case scenario) significance of this group should be seen as Medium - High rather than Medium.</p> <p>Group 60. RHDHV 1362 is not listed in Appendix 28.4.</p>	<p>Cultural Heritage section 28.6.3.2). The suggestions made by NCC regarding heritage significance have been incorporated into these sections, where relevant, and reflected in the impact assessment in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.</p>
Norfolk County Council	PEIR November 2017	<p>The air photo assessment (Figure 28.4) has established that features associated with a known medieval moated site (RHDHV 1015 / AP1) extend beyond the site boundary previously recorded in the Norfolk Historic Environment Record (as shown on Figure 28.2). Figure 28.2 shows that the National Grid Temporary Works Area at Necton will significantly overlap this archaeological site, including the previously recorded area of the medieval moat itself. Further consultation</p>	<p>In order to minimise the interaction between the works and AP 1 / RHDHV 1015 (potential sub-surface remains of a moat of possible medieval date and associated ditches, boundaries and enclosures), this feature has been subject to direct consideration as part of the iterative design process which sought to avoid this feature to the greatest degree possible, within the confines of engineering and other constraints. As such, interaction between the works in this</p>

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		with NCC Historic Environment Service and Historic England is therefore required to ensure disturbance to significant archaeological remains at this site is avoided.	area and the recorded extent of the feature is now much reduced and minimal in its overlap (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5).
North Norfolk District Council	PEIR November 2017	As it stands the available evidence suggests that, in particular, the CRSs at either Ridlington (Option 5a) or East Ruston (Option 6a) and the need for noise and landscape mitigation in order to try make those elements of the project acceptable, would likely result in a form of development that would be totally out of character with this relatively intact, historic and highly valued landscape within which many historic assets are located and whose setting would be harmed by the proposal.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
North Norfolk District Council	PEIR November 2017	7.4.3 Whilst the District Council recognise that Vattenfall do not wish to select a specific transmission system at this stage, the need for CRSs associated with a HVAC transmission system and a desire for CRSs be situated at a 'near to mid-point' location between the windfarm and substation at Necton mean that the ability to find a suitable site for one/two CRSs for the Norfolk Vanguard and Norfolk Boreas schemes is proving highly challenging. The District Council will continue to push Vattenfall to consider more appropriate and less sensitive locations on which to place the CRSs. In the absence of a viable alternative, the District Council would suggest that a High Voltage Direct Current (HVDC) transmission system which does not require CRSs may be the only suitable option which will not result in long-term significant adverse impacts across the District of North Norfolk.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.

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North Norfolk District Council	PEIR November 2017	CRS: Both sites are in open countryside, the northern most of which has little natural screening in the form of topography or established areas of woodland or planting and would therefore be particularly visible in the relatively flat, open landscape of this part of the North Norfolk District.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
North Norfolk District Council	PEIR November 2017	CRS: Whilst the response from Vattenfall sets out that a location further inland would have a requirement for more reactive power compensation and could therefore result in greater electrical inefficiencies during transmission, it would be expected that Vattenfall would set out the likely technical implications so that a reasonable planning judgement can be reached in considering whether any loss in electrical efficiency can be outweighed by the landscape impacts of a CRS at either Ridlington or East Ruston. As there is significant local opposition to the siting of this large infrastructure in an essentially unchanged rural landscape, the District Council would wish to understand why this facility has to be in this location and could not, for example, be sited somewhere closer to the North Walsham industrial estate where the wider landscape impact may not be as significant.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
North Norfolk District Council	PEIR November 2017	CRS: The precise design of the HVAC CRS has not been fixed at this stage but Vattenfall have set out visual representations of how the CRS may look within Volume 2 Chapter 29 LVIA Visualisations. These include details of suggested landscape mitigation planting as well as visualisations of the Norfolk Vanguard and Norfolk Boreas CRSs as they may look together. Vattenfall has	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this

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		indicated the following maximum design scenario for the Norfolk Vanguard development (a similar facility could also be proposed if plans for the Norfolk Boreas scheme are also progressed).	removes the need for a CRS from the project.
North Norfolk District Council	PEIR November 2017	Operational Impacts would generally be considered to be long term or permanent as they would likely endure for the expected 25+ years life of the wind farm and include any CRS facility, which would be a permanent feature in the landscape during the lifetime of the development. Such a facility, sited between Ridlington and East Ruston, would therefore have a long-term impact on this part of the district.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
North Norfolk District Council	PEIR November 2017	Whilst a variety of different issues and impacts would arise, the main likely impacts of the proposal would be in relation to:- landscape and impact on heritage assets.	The sensitivity of the landscape in relation to the project from a heritage perspective has been subject to consideration as part of a detailed heritage settings assessment (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.5, 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7), and has been further informed by the use of LVIA tool-kits (e.g. ZTVs and photomontages), where relevant.
North Norfolk District Council	PEIR November 2017	The District Council recommends that further work needs to be undertaken by Vattenfall to identify those hedgerows/field boundaries that would benefit from trenchless techniques to ensure that these important ecological and landscape features can be retained. This is critical as compensatory planting will not be able to include replacement trees over the buried cable routes.	Mitigation measures outlined in relation to historic hedgerows and boundaries are included (in overview) in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2 and referred to, where relevant in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5. Certain hedgerows and boundaries will be subject to survey as part of a post-consent earthwork condition survey, and subject to enhanced backfilling and reinstatement provision. On the basis of these surveys, certain earthworks, boundaries and hedgerows may be determined as requiring a higher level of reinstatement. This initial informative stage of

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			mitigation and subsequent mitigation measure (where required) is set-out in the Outline WSI (DCO Document 8.5) and will be further detailed in a survey-specific WSI for earthwork condition survey post-consent.
North Norfolk District Council	PEIR November 2017	In terms of delivering wider public benefits, there may be opportunities for Vattenfall to fund wider landscape mitigation to repair historical damage to field boundaries resulting from modern agricultural practices and to enhance local landscape character.	Impact to the HLC has been minimised through careful route selection and will, in part, be further off-set by returning field boundaries / hedgerows to their preconstruction condition and character post-construction, wherever possible, as part of a sensitive programme of backfilling and reinstatement / landscaping (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2).
North Norfolk District Council	PEIR November 2017	Whilst it is clear that extensive work has been undertaken by Vattenfall in identifying the heritage assets likely to be affected, at this stage until a number of design solutions have been identified it is extremely difficult to assess the likely impacts on heritage assets, particularly in relation to how development will affect setting such as at HVAC CRS locations.	<p>Potential impacts upon heritage assets have been considered as part of a detailed Impact Assessment, informed by a staged programme of assessment, survey and evaluation (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.5 and 28.6). The sensitivity of the landscape in relation to the project from a heritage perspective has been subject to consideration as part of a detailed heritage settings assessment (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.6.4, 28.7.5 and 28.7.6), and has been further informed by the use of LVIA tool-kits (e.g. ZTVs and photomontages), where relevant.</p> <p>Heritage settings impacts in relation to the CRS site options are no longer subject to consideration. Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.</p>

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North Norfolk District Council	PEIR November 2017	Given the statutory protection afforded to heritage assets, having a clear understanding of likely harm to heritage assets resultant from this development is important in order for the Planning Inspector to establish the correct weight that should be afforded to heritage protection when balanced against wider public benefits associated with the development.	The onshore project area and onshore works will avoid physical impacts upon known (e.g. previously listed / scheduled) designated heritage assets. Note: this is not possible and the commitment does not apply to the large rural Conservation Areas, previously discussed with NCC HES and HE. As such, with the exception of cable installation works through landscape character elements of the Blickling Conservation Area (which will need to be sensitively managed and subject to full, thorough and strictly controlled backfilling and reinstatement) no direct physical impacts are anticipated to occur to designated heritage assets (Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.2). Direct impacts upon the landscape character of the Blickling Conservation are discussed in further detail in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.6.2.
North Norfolk District Council	PEIR November 2017	The District Council recognises that steps have been taken by Vattenfall to identify heritage assets likely to be affected by the proposal. This would appear to have primarily been in the form of a desktop assessment exercise and therefore extensive further work is required once final design options are developed so that a full understanding of heritage impact can be set out including consideration of any cumulative impacts especially where many number of heritage assets could be affected collectively by proposed elements of the scheme such as at the CRS locations.	The baseline environment as presented in Chapter 28 Onshore Archaeology and Cultural Heritage has been enhanced through the implementation of a staged programme of assessment, survey and evaluation, as outlined in the Method Statement (Royal HaskoningDHV, 2017) and agreed in further consultation with HE and NCC HES. Cumulative impacts are assessed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.8. It is acknowledged that further survey and evaluation (i.e. initial informative stages of mitigation work) will be undertaken within the post-consent stage(s) of the project and followed by additional mitigation measures, as and where required (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2).
North Norfolk District Council	PEIR November 2017	As it stands the available evidence suggests that, in particular, the CRSs at either Ridlington (Option 5a) or East Ruston (Option 6a) and the need for noise and	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
		landscape mitigation in order to try make those elements of the project acceptable, would likely result in a form of development that would be totally out of character with this relatively intact, historic and highly valued landscape within which many historic assets are located and whose setting would be harmed by the proposal.	sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Roger Budden, St. Peter's Ridlington Church Warden	PEIR November 2017	Vattenfall are proposing an AC based system, selected for its cheapness, which will result in a permanent scarring from their CRSs positioned 400m away. Any possibility of a relaxed spiritual or community social event at the church will become impossible due to CRS noise and visual impacts. The masking of the CRSs over a period of 15 years or so appear to be optimistic and would not help our plans. What happens to the church during the time it takes for these masks to mature? Having consulted with others and our MP Norman Lamb, who recently came to view the CRS position as viewed from the church, we implore Vattenfall to do the decent thing on behalf of the community by deploying a DC based system.	Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a CRS from the project.
Norfolk County Council HES / Historic England / North Norfolk District Council / National Trust	24 th January 2018 / EPP ETG Onshore Archaeology Meeting Log	<p>Agenda Items:</p> <ul style="list-style-type: none"> The generation of a Statement of Common Ground; The PEIR responses; <u>LVIA vs. Heritage Setting</u>: discussion around several churches under consideration (re. heritage setting) in relation to the CRS options, discussions around the 'historic' landscape / heritage setting concerns raised, and these potentially being more relevant to landscape / amenity, as opposed to heritage setting; 	<p>Re: <u>LVIA / Heritage Setting</u>: The sensitivity of the landscape in relation to the project from a heritage perspective has been subject to consideration as part of a detailed heritage settings assessment (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.5 and 28.7.6), and has been further informed by the use of LVIA tool-kits (e.g. ZTVs and photomontages), where relevant.</p> <p>Re: <u>Geophysical survey</u>: The geophysical survey data (alongside aerial photo, crop mark and LiDAR data) acquired has fed directly into the Iterative Design Process (cable routing / micrositing</p>

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
		<ul style="list-style-type: none"> • The need for cross-referencing and cross-correlation between the Onshore Archaeology and Cultural Heritage chapter and the LVIA; • Making a distinction between change and harm and the expression of change Vs harm as a narrative; • The use, from a heritage perspective, of discounted views and viewpoints found on further inspection to be of little or no concern; • Aerial photographic and LiDAR data assessment as a basis for priority geophysical survey locations; • <u>Geophysical survey results</u>, to date, to provide a more robust approach to design considerations, routing and micro-siting discussions at an early stage to directly feed into the revised design to be assessed as part of the ES; • <u>The Onshore Project Substation</u> and the moated site; • <u>The National Trust's Interests</u>; • Overview of the results of the <u>geoarchaeological monitoring</u> of Site Investigation works; • Landfall engineering options; • <u>Targeted Metal detecting</u>; • <u>Embedded mitigation measures, commitments and the initial informative stage of mitigation work</u>; • Opportunities for enhancement (giving back-type initiatives). <p>(Further details are included in Table 28.2.2.2 of this</p>	<p>discussions and considerations) in order to avoid the most sensitive and significant known sub-surface archaeological remains wherever possible, as part of the project design (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2).</p> <p>Re: <u>Onshore Project Substation and the moated site</u>: In order to minimise the interaction between the works and AP 1 / RHDHV 1015 (potential sub-surface remains of a moat of possible medieval date and associated ditches, boundaries and enclosures), the presence of this feature has been taken into account as part of the iterative design process which has sought to avoid this feature to the greatest degree possible, within the confines of engineering and other constraints. As such, interaction between the works in this area and the recorded extent of the feature is now much reduced and minimal in its overlap (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.4.1).</p> <p>Re: <u>The National Trust's Interests</u>: Consultation has been undertaken with the National Trust at the ETG meeting on the 24th January 2018 and as part of an additional meeting held specifically in relation to the National Trust's interests on the 13th March 2018 (detailed below). It is understood that The National Trust also held a separate meeting with James Albone (NCC HES) on the 5th April 2018 to discuss post-consent archaeological survey requirements for the project within National Trust land.</p> <p>Re: <u>Geoarchaeological monitoring</u>: the geoarchaeological monitoring results are detailed in Appendix 28.6. The impact upon potential geoarchaeological and palaeoenvironmental remains is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5.</p> <p>Re: <u>targeted metal detecting</u>: The initial informative stages of mitigation works include provision for metal-detecting (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2).</p>

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
		Appendix, Appendix 28.2)	Such surveys will be undertaken in agreement with NCC HES and HE in order to further establish specific and bespoke mitigation requirements on a case-by-case / area-by-area basis, as required, and are initially set-out in the Outline WSI (DCO Document 8.5) and will be further detailed in survey-specific WSIs post-consent. <u>Re: Embedded mitigation measures, commitments and the initial informative stage of mitigation work:</u> see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.2 and the Outline WSI (DCO Document 8.5).
Norfolk County Council HES / Historic England	2 nd March 2018 / Project design update	E-mail sent to HE and NCC HES with respect to communicating the project decision to take forward the HVDC option, underlining that: 1) there is now no requirement for the CRSs previously under discussion, and 2) there will be a 45m maximum corridor route width, as opposed to a 100m under an HVAC scenario. The e-mail also outlined progress in relation to the summary of actions identified in the EPP ETG Meeting held on the 24 th January 2018.	For information. No action required.
Norfolk County Council HES / Historic England	8 th March 2018 / EPP ETG Onshore Archaeology and Cultural Heritage Method Statement (Norfolk Boreas)	This meeting was held in relation to the Onshore Archaeology and Cultural Heritage Method Statement prepared for Norfolk Boreas. The following topics were discussed which are also directly relevant to Norfolk Vanguard: <u>Settings assessment:</u> It was queried whether or not HE and NCC HES would still like to conduct a combined site visit from a heritage settings perspective, given the decision of the project to deploy HVCD technology. Will Fletcher (HE) stated that he would be happy to receive updated visualisations re. the onshore project substation area in the first instance. The benefits of	<u>Settings assessment:</u> A number of substation related ‘heritage-specific’ viewpoints have been identified in consultation with and feedback from NCC HES and HE and recommended for assessment, these include the following: <ul style="list-style-type: none"> • Church of St. Andrew, Bradenham (34); • Church of All Saints, Necton (36); and • The Old Hall, Fransham (58). These viewpoints have informed the settings assessment, where relevant (Chapter 28 Onshore Archaeology and Cultural Heritage sections 28.6.2.2, 28.7.5 and 28.7.6 and Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.7). <u>Smuggler’s Lane:</u> This has been considered as a potential above

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
		<p>acquiring 'negative' viewpoints from a heritage perspective as being indicative of no adverse impacts in relation to impacts upon the setting of heritage assets were discussed.</p> <p><u>Smuggler's Lane</u>: James Albone (NCC HES) had been made aware of potential above ground earthworks (unconfirmed by JA) along the parish boundary near the onshore substation. It was noted that this feature may need to be the subject of a site visit to assess any above ground remains. Further details were provided (see follow-up e-mail below dated 9th March 2018).</p> <p><u>Impact upon CFB Formation</u>: the results of the geoarchaeological assessment were discussed, which indicate that if CFB deposits are present, they are likely to be at significant depth. HE noted that a line can be drawn with impact upon Cromer Forest Bed deposits effectively discounted on the grounds of reasonableness, given the onshore geotechnical assessment results.</p>	<p>ground heritage asset in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5 (RHDHV 1682 / NHER 7295). This asset will be subject to further consideration as a potential candidate for post-consent earthwork condition survey (to be agreed in consultation with HE and NCC HES). This mitigation measure has been provisionally set-out in the Outline WSI (DCO Document 8.5) and will be detailed further in a survey-specific WSI for earthwork condition survey post-consent.</p> <p><u>Impact upon CFB Formation</u>: The impact upon potential geoarchaeological and palaeoenvironmental remains is discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5.</p>
Norfolk County Council HES	9 th March 2018 / Smugglers Lane Necton / Bradenham (e-mail)	James Albone (NCC HES) provided a plan highlighting the section of Smugglers Lane that the landowner has indicated survives as a hollow way.	As above, this has been considered as a potential above ground heritage asset in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7.5 (RHDHV 1682 / NHER 7295). This asset will be subject to further consideration as a potential candidate for post-consent earthwork condition survey (to be agreed in consultation with HE and NCC HES). This mitigation measure has been provisionally set-out in the Outline WSI (DCO Document 8.5) and will be detailed further in a survey-specific WSI for earthwork condition survey post-consent.
National Trust	13 th March 2018 / Norfolk Vanguard	Discussions were held around community involvement, local archaeology groups, history societies and outreach	Archaeology works / programmes to be agreed within the Blickling Estate (National Trust land) would be conducted post-consent, and

Consultee	Date / document	Comment	Response / where addressed in the ES (if applicable)
	and Onshore Archaeology within the Blickling Estate	<p>programmes during and potentially as part of archaeological survey works (post-consent), e.g. local/regional metal detector societies/clubs. It was felt by the National Trust that there should be some requirement within the DCO process re. engagement with local groups and outreach programmes.</p> <p>The National Trust requested access to archaeological data on the Estate obtained for the project (e.g. aerial photo survey and geophysical survey results) and also expressed an interest in land adjoining the Estate to the eastern end of the corridor through NT land, near the River Bure crossing.</p> <p>The National Trust requested more detail on the extent of any excavation to accommodate HDD drill rigs, as this (the area either side of the Bure) is a known area of archaeological / geoarchaeological potential.</p>	<p>would form part of a wider phased-approach to initial informative stages of post-consent archaeological mitigation works and then fuller archaeological mitigation works themselves, as / where required (see Chapter 28 Onshore Archaeology and Cultural Heritage section 28.6.2.1 and 28.7). Such surveys will be undertaken in agreement with NCC HES and HE, as provisionally set-out in the Outline WSI (DCO Document 8.5) and to be detailed further in survey-specific WSIs, post-consent.</p> <p>The project approach to geoarchaeology to date at key crossing locations alongside engineering led ground investigation works was discussed with the National Trust and is outlined in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.5.2, discussed in Chapter 28 Onshore Archaeology and Cultural Heritage section 28.7 and detailed in Chapter 28 Onshore Archaeology and Cultural Heritage Appendix 28.6.</p>

Table 28.2.2 Additional detail on consultation undertaken

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Consultee(s): Norfolk County Council HES / Historic England

Issue on which VWPL sought agreement:

Required scope of the Archaeological Desk Based Assessment (which will be the key source of information for the PEIR/ES Chapter) will be documented in a Written Scheme of Investigation/specification for ADBA to be drafted by Royal HaskoningDHV and reviewed and approved by NCC HES and HE.

Agreement / Consensus Reached: A WSI for ADBA was produced and agreed.

Issue on which VWPL sought agreement:

The majority of archaeological geophysical survey (project-wide) is anticipated to be undertaken post-consent, in part due to access constraints (as well as specific programme requirements and associated project risk). However, if pre-consent non-intrusive survey work is possible, then this would initially target the above ground infrastructure locations (cable relay and

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substation sites) and any key sensitive areas identified as part of the Archaeological DBA.

Agreement / Consensus Reached: A survey-specific WSI for priority archaeological geophysical survey was produced and agreed.

Issue on which VWPL sought agreement:

Engineering geotech surveys are to be undertaken at the landfall pre-consent, so archaeology/geoarchaeology approaches and requirements can be combined and built in alongside these.

Agreement / Consensus Reached: A survey-specific WSI for geoarchaeological monitoring of engineering GI was produced and agreed.

Issue on which VWPL sought agreement:

Propose targeting any key areas for field walking/metal detecting surveys, as required, and highlighted for example following the ADBA. As opposed to project-wide approaches to these surveys.

Agreement / Consensus Reached: Survey specific WSIs for any required field walking and metal detecting to be produced post-consent now.

Issue on which VWPL sought agreement:

Temporary construction within certain identified Conservation Areas has been highlighted.

Requirements to be further established through the DCO process. No separate consent, falls under the DCO.

Issue on which VWPL sought agreement:

How is a Conservation Area Consent administered / applied for as part of a DCO process?

Requirements to be further established through the DCO process. No separate consent, falls under the DCO.

Issue on which VWPL sought agreement:

Not proposing archaeological trial trenching pre-consent unless the DBA or early geophysics shows a particular necessity or risk. Again this is tied-in in part with land access constraints pre-consent.

Agreement / Consensus Reached: Trial trenching to form part of an initial informative stage of mitigation work, post-consent.

Issue on which VWPL sought agreement:

Request for NCC HES and HE to highlight and provide any further thoughts specific to the content of the draft Method Statement provided in advance of the meeting, re. outlined approach, assessment, surveys, programme, timings etc.

Agreement / Consensus Reached: Onshore Archaeology Method Statement and WSI for ADBA both agreed.

May 2017 / Meeting Minutes: Coastal, intertidal and nearshore archaeological considerations at the landfall options – focusing on Happisburgh.

Consultee(s): AHOB and PAB Representatives, including:

- Natural History Museum;
- British Museum;
- Queen Mary University of London;
- Norfolk County Council HES; and
- North Norfolk District Council.

The four main high-level aims of the AHOB engagement process, as defined by the Norfolk Vanguard Limited Engineering Team:

- Minimise loss of archaeological information.
- Maximise knowledge gained from pre-construction and construction activities.
- Inform the design of the cable landfall.
- Avoid delays during construction.

All in agreement – no immediate further action.

It was agreed the key stakeholders invited to the meeting (including those unable to attend) would form the steering group for the coastal, intertidal and near-shore elements of the project. Suggested group to undertake regular engagement from 2019 onwards, potentially every quarter, with updates on project progress provided every 6 months in the meantime.

All in agreement – no immediate further action.

Discussed funding opportunities to support further academic research at Happisburgh, as well as looking at community outreach projects. The CITIZAN (Coastal and Intertidal Zone Archaeological Network) project was cited as an example.

NA/RB/SP/SL – to look into potential academic opportunities for funding, and present these to Norfolk Vanguard Limited for consideration.

RD commented that a ‘formal’ funding proposal should be produced for consideration.

RD explained that initial onshore boreholes (including those at landfall and river crossings) are to take place commencing in the next few weeks (June 2017), specific to the Norfolk Vanguard Project.

GI locations not confirmed at present, showed the area being looked at for maximum coverage for the two options at Happisburgh (northern end – cliff eroding; southern end – existing sea defences but drilling under houses). SP commented on the potential geological issues including a large collapsed feature within the chalk that has been identified at/vicinity of Site 1 (100m across) – showed location on map = dark features within field to west of Site 1.

SL to share previous coring data, including details of a collapsed feature within the chalk with RD/Norfolk Vanguard Limited Engineering Team/Reps/DN.

Data sharing ongoing.

FS explained that currently the Project (alongside the engineering team and representatives) was developing an archaeological/geoarchaeological approach to GI works – including likely

May 2017 / Meeting Minutes: Coastal, intertidal and nearshore archaeological considerations at the landfall options – focusing on Happisburgh.

enhanced geoarch monitoring and logging of certain high-potential coring locations, such as Happisburgh, the River Wensum and River Bure etc.

This was/is proposed to be taken forward now by DN and his Geoarchaeological Team at Wessex Archaeology, in order to confirm the specific requirements and come to agreement on appropriate and proportionate approaches, which are not constraining on the GI aims and objectives, but which will help gather further information on the archaeological, geoarchaeological and geological deposits of interest at Happisburgh for instance.

JA confirmed post-meeting that this should be formalised within a survey-specific WSI document.

A survey-specific WSI was agreed for geoarchaeological monitoring of engineering GI.

JA stated that there is likely to be minimal shallow archaeology at either HDD location, although there is a potential Bronze Age site at the same location as the dark 'geological' feature referred to above. Uncertain of the potential for archaeology to survive below sea level. SP commented that as the coast erodes significant deposits are also being eroded and leaving behind low-level deposits. The northern channel appears to be the northern limit of the deposits (Site 2) and outcrops of the forest bed have been recorded at Walcott, but nothing at beach level due to coastal erosion. DN / VC mentioned that Wessex Archaeology is currently reviewing geophysical survey data and cores for the offshore corridor.

DN to share offshore geophysical and coring data with group once reporting reviewed and approved internally.

Data sharing ongoing.

JA asked what is currently known regarding the survival of archaeological deposits at either location for both the long and short HDD, and if one methodology was easier to investigate than the other. DN suggested coring offshore and within the intertidal zone, potentially as part of this or other GI works would help to understand the archaeological potential. SL commented that there are information gaps between Site 1 and Cart Gap and currently unable to say if either long or short HDD would be best. There is a possibility for more (historic) channels.

FS raised and a further discussion was had re. the onshore GI works and an associated archaeological/geoarchaeological approach. Asking a further question on the benefit of monitoring the GI works in advance of a separate geoarchaeological project-wide survey and assessment approach. SL response: was that it is worthwhile monitoring GI works for early identification. DN described what could be looked at during the GI works, and that cores could be opened up on site or back in the labs for the geoarchaeologists to sample alongside the engineers, depending on the outcome of further discussions direct with the engineering GI Team and Contractor.

SL to share coring data to potentially inform the project's GI locations.

DN to liaise with Andy Hardcastle (GHD) to discuss the GI/archaeological and geoarchaeological approach. With a WSI to be drafted by DN for agreement internally first and then externally with the group.

A survey-specific WSI was agreed for geoarchaeological monitoring of engineering GI.

Data sharing ongoing.

Re. Points of Contact:

SL - Contact for onshore coring information.

RB - Contact for offshore work in the academic sphere, Cart Gap and CITIZAN / similar projects.

May 2017 / Meeting Minutes: Coastal, intertidal and nearshore archaeological considerations at the landfall options – focusing on Happisburgh.

CJ - Contact for future funding opportunities and community outreach events.

May 2017 / WSI for Archaeological Desk Based Assessment (Terrestrial Archaeology)

Consultee: Historic England

Will Fletcher (HE) via Email:

I also passed this document to our Science Advisor colleagues and have collated comments below. Overall they agree with me that your overall approach was sensible, but there were a couple of additional questions/comments.

HE comments re: onshore archaeology programme and geophysical survey - our guidance stresses that it is important to keep in mind the benefits of utilising more than one technique in a survey, particularly given the conditions in Norfolk.

Actions: The specific technique was agreed in consultation with James Albane at Norfolk County Council HES, and formalised within a survey-specific WSI, which was approved prior to the commencement of survey. The priority programme of geophysics was informed by the DBA work and specifically aerial photographic assessment.

HE comments re: metal detecting, field walking and earthwork surveys. The WSI states that these will be carried out “only if required”. It would be sensible to explain how this decision would be made and confirm that there would be a role for the LPA in that decision making process.

Actions: (specific requirements/programme is to be agreed post-consent), decisions as to required targeted locations (rather than a project-wide approach, - a lesson learnt from the Dudgeon Project in Norfolk working with Norfolk County Council HES) will be made in discussion and agreement with James Albane at Norfolk County Council HES, and again survey-specific WSIs produced and agreed in each case, as part of the initial informative stages of mitigation (post-consent).

HE comments re: documentary sources (Section 2.2), the list does not include the BGS archive of cores/boreholes. This may provide also useful historic environment information for the project, particularly in places like Happisburgh or the other riverine environments.

Actions: The BGS archive of cores and boreholes will be further consulted as part of a proposed project-wide (but targeted) approach to geoarchaeological survey along the cable route – to be undertaken post-consent.

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Consultee: Historic England

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Will Fletcher (HE) via Email:

As discussed I asked my colleague to cast a professional scientific eye over this just to give some re-assurance that it would be an effective approach. I guess that having seen this kind of document before that it is difficult to capture the difficulties of monitoring GI works. However we are looking for a fully joined up approach that captures the often rare opportunity that these occasions provide to look at sediments with potential. Therefore sentences like 'archaeological samples will be collected where possible', should be replaced with 'archaeological samples will be collected where present' which would highlight the opportunity. There are other similar changes that could be made. Also we had one or two specific comments

Section 3.2: one of the aims is to "negotiate the taking of appropriate samples for further investigation with the SI team", which may include the collection of bulk samples or intact U100s where possible.

Ideally, dedicated cores for archaeological assessment would be collected so that they could be evaluated and assessed in terms of their archaeological potential. The deposits will need to be evaluated by archaeologists/geoarchaeologists, so it seems sensible to coordinate this aspect with the geotechnical investigation to maximise the opportunities of the proposed coring programme and to limit any duplication of effort.

The same point can be made for Section 4.1.2, which states that samples for archaeological purposes will be requested "where possible". We would suggest that it is sensible to collect suitable samples to evaluate the archaeological potential in these areas, as this would need to be addressed by the proposed development in order that the impact is understood and mitigated against.

Section 4.1.5: it is stated that for Crossings 1, 2, 5, 6, and 7 that the GI team will contact the geoarchaeologist and inform them if significant strata are present.

Can you confirm that a training session or a tool-box style talk would be held with the GI team ahead of this work to ensure that they are aware of the sort of features/deposit types which are of interest?

Section 4.2: the types of samples are discussed in this section, highlighting the use of either bulk samples (collected from the upcast material or the sediment 'shoe' at the end of the U100 core) or intact stratified cores.

Ideally, core samples will be recorded and sampled for archaeological purposes, especially considering it is stated in Section 4.2.2 that the bulk samples will be of "limited use for further scientific work". As the archaeological potential of these deposits needs to be assessed, it seems sensible to collect samples of value to this work at the same time as the geotechnical works to maximise the potential of this programme of works.

Section 4.3: it is stated in this section that the samples will be recorded in terms of the "characteristics of the soil/sediment colour, texture, inclusions, bedding, boundaries and structure".

Can you confirm that the samples will be evaluated in terms of the presence/absence of any palaeoenvironmental remains (pollen, plant remains, insects, charcoal etc.), their state of preservation, and their potential, as well as the potential for scientific dating?

Wessex Archaeology Response:

Everybody concerned, from Vattenfall downwards, are very aware of the archaeological significance of the area, and have been extremely supportive in pursuing a best-practice approach regarding the archaeology of the whole project, and in particular the unique Palaeolithic resource represented by the CFB and associated deposits. I think this is reflected by Royal HaskoningDHV bringing the AHOB team on board to inform and advise at a very early stage, as well as inviting them to be involved as the project progresses (which I'll be facilitating).

I'll make sure that we address your specific comments in the re-issued WSI, but I think it would be useful to do so here too in order to provide reassurance:

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- Section 3.2: one of the aims is to “negotiate the taking of appropriate samples for further investigation with the SI team”, which may include the collection of bulk samples or intact U100s where possible.
- Ideally, dedicated cores for archaeological assessment would be collected so that they could be evaluated and assessed in terms of their archaeological potential. The deposits will need to be evaluated by archaeologists/geoarchaeologists, so it seems sensible to coordinate this aspect with the geotechnical investigation to maximise the opportunities of the proposed coring programme and to limit any duplication of effort.
- The same point can be made for Section 4.1.2, which states that samples for archaeological purposes will be requested “where possible”. We would suggest that it is sensible to collect suitable samples to evaluate the archaeological potential in these areas, as this would need to be addressed by the proposed development in order that the impact is understood and mitigated against.

We shall indeed be collecting cores (100mm internal diameter sleeved cores, aka U100) specifically for archaeological assessment, from strata identified as of interest by the attending geoarchaeologist. The reason this requires negotiation on site is that the GI team will of course be requiring cores from some strata for their own testing purposes. Whilst which strata they’re sampling is a decision generally made in the field and doesn’t have easily defined parameters as yet, in our experience they are rarely interested in the same layers as us. The GI team lead has already indicated that should they not be sampling a particular strata for their own purposes, then they will be happy to take additional U100s for us to retain. In the event that the GI team are requiring U100s of archaeologically relevant strata for their testing, we have agreement in place to undertake geoarchaeological description and subsampling at the geotechnical laboratory alongside their tests.

Additional surety that the key strata will be accessible and sample-able is provided by the multiple coring points at each location providing significant redundancy (10 for the landfall site, and 4 at each crossing).

- Section 4.1.5: it is stated that for Crossings 1, 2, 5, 6, and 7 that the GI team will contact the geoarchaeologist and inform them if significant strata are present.
- Can you confirm that a training session or a tool-box style talk would be held with the GI team ahead of this work to ensure that they are aware of the sort of features/deposit types which are of interest?

Absolutely. As well as tool-box talks, from discussions with the GI team leaders it is clear that they will have geologists on site with the engineering teams; this will greatly facilitate discussions as to which types of deposits / depths we need to be notified about. The GI team lead has already indicated that they would be happy to notify us, for example, when a particular depth is being approached (in many areas there is a fairly predictable – and very thick – coverage of archaeologically uninteresting Till). Sufficient time allocation is built in to the programme to ensure that attendance can be made as and when appropriate.

- Section 4.2: the types of samples are discussed in this section, highlighting the use of either bulk samples (collected from the upcast material or the sediment ‘shoe’ at the end of the U100 core) or intact stratified cores.
- Ideally, core samples will be recorded and sampled for archaeological purposes, especially considering it is stated in Section 4.2.2 that the bulk samples will be of “limited use for further scientific work”. As the archaeological potential of these deposits needs to be assessed, it seems sensible to collect samples of value to this work at the same time as the

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geotechnical works to maximise the potential of this programme of works.

Addressed above.

- Section 4.3: it is stated in this section that the samples will be recorded in terms of the “characteristics of the soil/sediment colour, texture, inclusions, bedding, boundaries and structure”.
- Can you confirm that the samples will be evaluated in terms of the presence/absence of any palaeoenvironmental remains (pollen, plant remains, insects, charcoal etc.), their state of preservation, and their potential, as well as the potential for scientific dating?

Yes – the palaeoenvironmental works will follow on as a discrete phase of works, with its specifics defined and proposed in this report. We have found that it’s useful to separate out the fieldwork phase of these projects from the palaeoenvironmental assessment; largely because it can be very restrictive to have to budget for a specified number of samples before the scale of the available resource is identified.

The reporting of this stage would therefore focus on the deposits recorded along the route, and their character and significance based on geoarchaeological description and interpretation (of boreholes monitored and samples taken, but also including drillers’ logs from non-monitored GI works). This information would be used to identify key research questions and to propose suitable targeted palaeoenvironmental assessment and dating works, which would be specified in terms of numbers, locations and type of subsamples (in consultation with AHOB). This does of course present a suitable opportunity for comment from yourselves on the proposed subsampling and assessment, both in terms of numbers and types of indicators covered.

July 2017 / EPP ETG Onshore Archaeology Meeting Log Details

Consultee(s): Historic England / Norfolk County Council HES / Broadland District Council / North Norfolk District Council

1) No issues raised with the methodology behind the ADBA.

Action: No specific action required.

2) The following queries were raised in relation to the PDS2 refinement:

- WF asked about the detail around the drilling in relation to coastal erosion;
- WF asked if archaeology in the onshore cable corridor will be done for Norfolk Boreas (NB) and Norfolk Vanguard (NV) together and what works are required to put cables in;
- JA notes that Boreas compound might involve some additional area but by that stage we’ll have a good idea of what is present in terms of heritage assets.

Action: No specific action required – responses were verbalised during the meeting. In summary: RD explains that there is a 50 year estimate rate for cliff erosion, depends on the coastal erosion study and AH explained that once ducts are in the ground, cables are pulled through, c. 800m at a time, so a small excavation is required at each 800m but within same areas.

3) The following queries were raised in relation to the PEIR Chapter:

- JA asked what percentage of Aerial Photographic features were not already in the HER data;
- CY asked for clarification on the 3D appearance of the cable relay station, and its potential impacts on local church towers;
- JA asked about what the current thinking of colour of buildings is;
- All stated/requested that heritage specific viewpoints are incorporated into the LVIA assessment to inform the settings assessment; and

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- JA and CY requested that three Grade I Listed Churches are highlighted as potentially vulnerable with respect to their setting as a result of the project (the Church of St. Mary, Happisburgh (11), the Church of All Saints, Walcott (12) and the Church of St. Peter, Ridlington (13)).

Action: In summary, DD responded that 102 out of 124 AP features within the project parameters were already recorded, but there is some potential for additional records; RD provided visualisations of the CRS infrastructure; AH has confirmed colour options are flexible for most of the elements. But that some pieces of infrastructure are more limited; Heritage-specific viewpoints are to be considered in consultation with HE / NCC HES.

Note: Subsequent to this meeting, Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a Cable Relay Station from the project.

4) The following queries were raised in relation to priority geophysics:

- JA / WF agreed with general approach but request further meeting to discuss details;
- WF asked what survey methodologies will be used;
- JA and WF highlighted the need to identify potential Saxon sites, which don't often show in geophysical survey;

Action: A survey-specific WSI for priority archaeological geophysical survey was produced and agreed. A further meeting was held with JA to agree the main 'targets'. The meeting was undertaken on September 6th 2017.

5) The following queries were raised in relation to geoarchaeological monitoring:

- WF asked if the glacial sediments are an indication of the Cromer Forest Beds;
- JA explained that the large Cromer Forest Bed geological collapse feature can be seen in the LIDAR data;
- WF asked about river valley crossings and GI works, as areas of interest and potential archaeology.

Action: The results of the Geoarchaeological Monitoring of GI are reported upon in Appendix 28.6 of the chapter.

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Consultee(s): Historic England / Norfolk County Council HES / North Norfolk District Council / National Trust

1) LVIA vs Heritage Setting

- Several churches were under consideration (re. heritage setting) in relation to the CRS options. These were to be further considered in the assessments (PEIR to ES) with more effective cross referencing within the LVIA and onshore archaeology chapters to create better links between the chapters;
- Discussions were had around the 'historic' landscape and heritage setting concerns raised, and these potentially being more relevant to landscape and amenity, as opposed to heritage setting, especially in relation to the principal churches of St. Peter's, Ridlington; All Saints, Walcott; and St. Mary's, Happisburgh;
- Chris Young (CY - North Norfolk District Council) was happy with the key assets (receptors) mentioned (essentially 6 churches and the lighthouse at Happisburgh), but did briefly mention a potential further consideration being Atthills Farm in respect to CRS 6a;
- James Albone (JA) asked whether it would be possible to have a viewpoint from ground level, as it is not possible to get one from the tower, at the Church of St Mary, East Ruston looking towards the CRS 6a option;

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- Freddie Scadgell (FS) noted that (in his opinion and that of Rob Sutton (RS)) the setting of these churches under consideration does not contribute in a large (primary) way to the heritage significance of these assets. But that this would be further articulated in a statement of significance for each of the churches by way of a supporting rationale to this position.
- Will Fletcher (WF) noted that previous discussions with locals have found that churches are important and valued as waymarkers / wayfinders in this type of landscape.
- RS made a point about monumentality and the importance of relativity. Posing the question of will the CRS development challenge this monumentality? Are the features (assets) likely to be lost as wayfinders? And in his opinion, this is unlikely.
- RS suggested agreeing statements of significance for the churches within the SOCG and noted the importance of making a distinction between change and harm. WF agreed that any final narrative which discusses change vs harm will be very useful.
- A discussion took place regarding the value of churches in/to communities and in terms of their cultural heritage. It was noted that it is difficult to establish significance in terms of both community and cultural heritage.
- JA noted the dispersed settlement pattern in East Anglia and highlighted that some of the churches (e.g. All Saints, Walcott and St. Mary's, East Ruston) are now isolated because settlements have moved away, whilst others are retained within the centre/heart of their associated settlements (e.g. St. Mary's, Happisburgh and St. Peter's, Ridlington). RS agreed that social trends and changes in and associated settlement patterns could be picked up as part of a further piece of specific historic landscape / settings work.
- RS discussed a need for an open discussion between the LVIA and Cultural Heritage technical teams to ensure only relevant visualisations etc. are included. WF and JA did, however, note that as supporting evidence the discounted views and viewpoints found on further inspection to be of little or no concern can also be of use and should be considered for inclusion.
- FS noted that there are no identified heritage setting issues re. substation-related heritage assets, at the present time. But that a further check would be done re. more distant views from areas further south of the Substation location. WF agreed, but would like to go on site with some visualisations and to check potential viewpoints from both the CRS and Substation perspective.

Actions: Cross-correlation between the LVIA and Onshore Archaeology and Cultural Heritage Chapters to ensure a more robust structure across the LVIA and onshore archaeology chapters. RS and JA to check what mapping (e.g. older estate, tithe, enclosure) is available from the HER and other archives re. scoping a potential further piece of specific historic landscape / settings work to the support the ES chapter re. the CRSs. FS, RS, WF and JA to consider the possibility of a combined site visit re. CRS and Substation and heritage setting.

Note: Subsequent to this meeting, Norfolk Vanguard Limited has reviewed consultation received and in light of the feedback, has made a number of decisions in relation to the project design in order to deliver an environmentally sustainable project generating climate smart, low cost green electricity. One of those decisions is to deploy High Voltage Direct Current (HVDC) cable technology to the UK's National Grid and this removes the need for a Cable Relay Station from the project.

2) Aerial photographic and LiDAR data assessment / priority geophysical survey

- Aerial photographic and LiDAR data assessment results were used to provide a basis for priority geophysical survey locations;
- The total area identified for survey was approx. 45% of the 60km x 200m cable corridor (as relevant at PEIR stage) and other associated onshore infrastructure. The survey programme was roughly halfway through at the time of this ETG meeting;
- FS outlined that magnetometry was the only feasible method at this stage to cover an area of the size proposed for survey, and that the survey will allow post-consent trial trenching to be better targeted with a fuller data source, and any further required geophysical survey can also be considered and undertaken at that stage (post-consent);

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- A fuller GIS dataset (to include AP, LiDAR and geophysical survey data as it comes in) has helped to provide a more robust approach to design considerations, routing and micro-siting discussions at an early stage and has directly fed into the revised design assessed as part of the ES;
- WF asked how narrow the corridor could go to avoid a feature.
- RD – corridor could be ‘pinched’ for small sections, if required.
- WF is happy that archaeological specific advice (based on available data) has been taken on-board and has been used to inform design elements of the development. WF noted that it is valuable to align the processes from a planning and decision making point of view.

Action: FS to start feeding geophysical survey data (greyscale .tiffs) through. Data sharing and dissemination ongoing.

3) Substation:

- The aerial survey data has backed up and enhanced the HER cropmark data for the recorded medieval moated site in this area. The moated site within/overlapping the substation area has been further considered in the design and siting work.
- A FEED (Front End Engineering Design) study took place in the area. RD noted that a call was scheduled with National Grid to discuss temporary works area and access requirements.

Action: JA was to be updated after conversations with Highways England (traffic ETG) Re. access around the substation and the ability to avoid the main focus of the medieval Moated Site.

4) The National Trust’s Interests:

- FS went through areas covered by National Trust Land and areas surveyed to date;
- Shannon Hogan (SH) expressed concern regarding the stripping of topsoil and the impact on the subsoil, and the underlying archaeology. FS noted that where topsoil is to be stripped, it will need to be subject to an approved archaeological process (NCC and NT).
- Field walking and metal-detecting was discussed. SH noted the need to ensure that any field walking and metal detecting requirements are fully considered and agreed as part of the process. FS stated that where there is justification for field walking and metal detecting, this can be done, noting that targeted approaches with higher % sample coverage are likely to be more productive and informative than surveying the entire corridor.
- FS suggested that commitments and reassurances would form part of and go into the Outline WSI (DCO Document 8.5) surrounding this future requirement for an initial informative stage of the mitigation work (e.g. further geophysical survey, targeted field walking and metal detecting and trial trenching), with specific approaches and methodologies to be agreed post-consent.
- RS – Agreed that for this scale of project, metal detecting is much better and more productive to focus in on certain priority areas rather than attempt to cover everything. SH added that there are a lot of voluntary groups with experience and keenness to undertake metal detecting, and there could be some opportunities to tie in certain work with them. FS noted that there are definitely further discussions to be had post consent (if the application is successful) on this front.

Action: No immediate further actions. The National Trust’s interests have been captured and included, where relevant, in the Outline WSI (DCO Document 8.5).

5) Geoarchaeological monitoring of Site Investigation works:

- Happisburgh AHOB Steering Group - first meeting outcomes included a commitment to data sharing; input to ground investigation monitoring approaches; and regular engagement post-consent;
- The two phases of geoarchaeological assessment were discussed.

Action: No immediate further actions.

6) Riverlands Project:

- The National Trust is involved with this project, essentially establishing where the river should be and studying its natural movement. The aim is to re-establish former routes in some areas, change farming habits to avoid pollution and to work with other land owners.

Action: RH to contact Emily Long at the NT, regarding the ‘Riverlands Project’

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7) Landfall engineering options:

- Long and Short HDD options were discussed;
- WF added that landfall archaeology is a difficult issue and that any available survey data should feed into the assessment and the design. WF acknowledged, however, the opportunities future engineering work around the design and construction at this location may afford for enhancing knowledge of archaeological and geoarchaeological deposits in this area.

Action: No immediate further actions.

8) Metal detecting:

- FS to have a discussion with the Vanguard Project Team Re. the timing, access possibilities and rationale of a small programme of targeted metal detecting (as flagged by JA) to potentially be undertaken pre-submission of the DCO (to inform the ES chapter) and to ascertain the feasibility and practicalities of this type of survey (intrusive) at this stage.

Action: Metal-detecting as subsequently communicated to NCC HES and HE (post-meeting) is to be considered/undertaken post-consent, as part of the initial informative stages of mitigation.

9) PEIR into ES:

- FS noted that there needs to be a discussion Re. presentation of new information and how this will be best presented in the chapter. WF agreed it would be good to have a streamlined ES. Some agreements may be made in the SOCG and supporting information moved to an appendix (appendices) to streamline some of the information. RH asked whether a SOCG per organisation or per topic would be better. HE and NNDC expressed strong preference for SOCG per organisation.

Action: No immediate further actions.

10) Embedded mitigation measures and commitments:

- JA and WF happy with the approach of an initial informative stage of mitigation work, as suggested (post-consent) and then subsequent mitigation approaches to be agreed on a case-by-case basis as part of ongoing discussions and agreements required post-consent.

Action: No immediate further actions.

11) Opportunities for enhancement:

- WF mentioned opportunities for enhancement (giving back type initiatives), for example events sponsorship (siting Ørsted's partnership/sponsorship of events and programmes at the Natural History Museum).

Action: To be considered further by the Norfolk Vanguard Limited Project Team, post-consent.