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To: [East Anglia Two](#)
Cc: [Fletcher, Will](#); [Robinson, Joanne](#)
Subject: East Anglia TWO Offshore Windfarm - EN010078
Date: 02 November 2020 18:32:39
Attachments: [Historic England Written Reps EA2 Fin.pdf](#)

Dear PINs

Please find attached Historic England's response regarding the proposed EA2 project.

Below is a table setting out our answers to the Examining Authority's Written Questions.

EXQs 1		
1.0.3	Historic England	We have considered this question and have provided comment in our full written statement We have raised concerns 1) The planning considered to have a harmful impact upon the significance of the grade II* listed church, though changes to the landscape and in impeding views etc 2) It is not possible to fully mitigate the impact of the development in all views 3) That the LPA have raised concerns about the growth rates for trees which would mean the impact of the screening in reducing the harm would potentially be less effective.
1.0.4	Historic England	No comment
1.0.8	Historic England	No comment
1.8.8	Historic England	We have provided a more detailed account of the impact of the development upon the significance of the Church of St Marys in our full written statement.

I would be grateful if you could confirm that you have received our representations.

Any questions please do not hesitate to contact us.

Kind regards

Sophie

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Historic England

**PLANNING ACT 2008 (AS AMENDED) – SECTION 88 AND THE
INFRASTRUCTURE PLANNING (EXAMINATION PROCEDURE) RULES 2010 (AS
AMENDED) - RULE 6**

**REPRESENTATIONS OF THE HISTORIC BUILDINGS AND MONUMENTS
COMMISSION FOR ENGLAND (HISTORIC ENGLAND)**

**APPLICATION BY EAST ANGLIA ONE NORTH LIMITED FOR AN ORDER
GRANTING DEVELOPMENT CONSENT FOR THE EAST ANGLIA ONE NORTH
OFFSHORE WIND FARM**

&

**APPLICATION BY EAST ANGLIA TWO LIMITED FOR AN ORDER GRANTING
DEVELOPMENT CONSENT FOR THE EAST ANGLIA TWO OFFSHORE WIND
FARM**

APPLICATION REF: EN010077 (EA1N) & EN010078 (EA2)



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Summary

On-shore historic environment

In relation to the on-shore historic environment our principal concern is in relation to the proposed development of the substations for EA1N and EA2 on the significance of the grade II* listed Church of St. Mary at Friston. This is individually and the cumulatively when combined with each other and with the additional National Grid infrastructure.

This church is an important, highly-graded and designated heritage asset which lies on the northern edge of Friston village. It is appreciated in a rural and largely open landscape setting enabling views from the south and north, which both enhances its prominence and adds to the appreciation of the building. We believe the scale and appearance of the proposed development would significantly change the character of this rural landscape setting.

We are aware the proposal includes screening and mitigation planting and the effects of mitigation have been considered. We have however concluded that these proposals would result in a very high level of harm to the significance of the grade II* church. The scheme overall would have a significant effect on the significance of the asset and the magnitude of change would be major adverse.

Given the findings in relation to the harm, Historic England wishes to raise an objection to the proposed substations for both EA1N and EA2 and also to the National Grid infrastructure. Please note that we do not object to the principle of the development in relation to the siting of the turbines, landfall or cable route however we have raised a number of points that would need to be considered.

Off-shore historic environment

In relation to the off-shore historic environment, the large number of geophysical seabed anomalies recorded within the PDA highlights the potential for significant historic environment features to be present.

Our concern here is therefore to ensure that the Outline Offshore Archaeological Written Scheme of Investigation considers how the construction can be designed sensitively to take into account known and potential heritage assets.

We have identified that the resulting proposals of embedded and additional mitigation - through schemes of investigation have the potential to successfully mitigate impacts to the historic environment through avoidance, but these present opportunities to better reveal the significance of the heritage assets found within the proposed development area.



1. Introduction

- 1.1. The Historic Buildings and Monuments Commission for England (HBMCE), is better known as Historic England, and we are the Government's adviser on all aspects of the historic environment in England - including historic buildings and areas, archaeology and historic landscape. We have a duty to promote conservation, public understanding and enjoyment of the historic environment. HBMCE are an executive Non-Departmental public body and we answer to Parliament through the Secretary of State for Digital Culture, Media and Sport.
- 1.2. In addition to our remit for the conservation of the historic environment the National Heritage Act (2002) gave HBMCE responsibility for maritime archaeology in the English area of the UK Territorial Sea.
- 1.3. In relation section 88 of the Planning Act 2008 (as amended) and the infrastructure planning (examination procedure) rules 2010 (as amended) we are a statutory consultee with responsibilities within the terrestrial landscape.
- 1.4. Our primary remit in relation to this application is to advise on the impact of the proposed development on grade I and II* listed buildings, registered parks and gardens and on scheduled monuments. We would not wish to comment on grade II listed buildings (unless their demolition is proposed) or individual undesignated heritage assets as these are outside the remit of Historic England. We are content to defer to the Local Planning Authority and their archaeological advisors on those matters and we refer the examining authority to their submissions as relevant.
- 1.5. Historic England are also aware that EA1N & EA2 are in separate applications however all consultation to date has been undertaken on the basis of conjoined application. The comments below are applicable to both the East Anglia One North (EA1N) Offshore Wind Farm (OWF) and East Anglia Two (EA2). Only where comments differ have specific references been detailed.

2. Comments In Relation To Environmental Statement: Onshore

2.1. The significance of St. Mary's Church, Friston

- 2.1.1. Historic England's principal concern is the impact of the onshore and national grid substations on the significance of the Church of St. Mary at Friston which is listed at grade II*.
- 2.1.2. Like many rural parish churches, St. Mary's is the result of several phases of building over the centuries. It contains fabric of the eleventh and twelfth centuries, although the main body of the church was built in the fourteenth and



fifteenth centuries. It then underwent several further phases of work including restorations in the late nineteenth and twentieth centuries. This work illustrates changes in ecclesiastical architectural design and reflects patterns of worship over many centuries.

- 2.1.3. The church is set within a large and open churchyard. The grade II listed war memorial stands within the churchyard at the eastern end of the church and there is also a close association between this and the church. There are views out from the churchyard to the wider rural landscape and other parts of the village to the north and south east as described below.
- 2.1.4. The church lies on the northern edge of the village and has a largely rural and open landscape setting despite being within the village. The village of Friston comprises dispersed groups of housing. Closest to the church is an area of housing to the west and a few houses and farmstead to the east. The rest of the village lies to the south, separated from the church by the village green and fields between the churchyard and Grove Lane. To the north is a rural agricultural landscape.
- 2.1.5. The church is the largest building in the village and sits on the rising ground to the north. The church tower (rebuilt in c.1900) is not particularly tall, but it rises above the other village buildings, which are mainly modest houses of one and a half to two storeys. The topography, scale of the building and the open landscape allow for the church to be experienced and enjoyed from the village and landscape beyond the churchyard. Particularly in views from the open countryside to the north and again to the south when approaching the village.
- 2.1.6. The open landscape to the north, which is currently publically accessible via a network of well-established and historic footpaths, allows for views from the north towards the church. The character of this landscape is essentially rural agricultural, comprising fields bounded by hedgerows and small areas of woodland. We understand from the work undertaken by Suffolk County Council that the footpath running through the application site is an ancient track way dating to the tenth century. This reflects historic boundaries and shows the longstanding pattern of use and connections between the church and village of Friston and farmsteads to the north (see Rapid Historic Landscape Assessment (2019) 5 & 7.2).
- 2.1.7. We are aware there is an existing power line which crosses this landscape. Whilst this does detract from its undisturbed rural character to some degree and the pairs of pylons are visible in the context of the church from some of the southern views described below. The cables are however seen at a height

above the church and treeline and the cables and lattice framework of the pylons have a transparent nature that allows views through the structures.

- 2.1.8. To the south east there are fine views of the church from Grove Road across open fields crossed by a footpath. Also to the south there are views of the church tower across the village green over the housing. There are longer views from the south including those from the B1121.
- 2.1.9. The church is therefore prominent in the village and the surrounding area as the village's principal building, by virtue of the topography, its scale, architectural quality and the open landscape around the building. The landscape setting contributes to the significance of the church by enhancing its prominence within the village and surrounding area. It also adds to the appreciation of the building and the complements the spiritual values of the place.
- 2.1.10. The continuing phases of work to the church and the scale and prominence of the church also reflect the significant role of the church within the community over the centuries. Its listing at grade II* places it in a select group of important buildings that together with grade I structures, make up c.8% of all listed buildings.
- 2.1.11. The buildings and grounds are publically accessible and the oldest surviving building in the parish and it demonstrates high evidential, aesthetic, historic and communal values.
- 2.1.12. Historic England is aware that the village contains a number of other Grade II listed buildings and the Grade II* listed Friston Mill. Given our remit we have not provided comment upon the Grade II listed building within the village, and would refer the Examining Authority to the advice provided by the Local Planning Authority. The Impact upon the significance of the Grade II* mill has been covered in the applicant in the ES and we do disagree with their findings in this regard.

2.2. Overall impact of the proposals on the significance of St. Mary's Church

- 2.2.1. The substations for EA1N and EA2 are identical with a maximum building height of 15 metres and external electrical equipment of up to 18 metres in height, covering an area of land up to 190 by 190 metres. There is also a requirement for a new National Grid (NG) substation to serve one or both of the substations. The proposed compound in the worst-case scenario (AIS substation) is 145 by 310 metres and a maximum building height of 6 metres and maximum outdoor equipment of 16 metres.



- 2.2.2. The proposed location would be in the rural landscape to the north of the church at Grove Wood. This is described as at least 400 metres from the church (Appendix 24.7 95).
- 2.2.3. The application contains visual representations of the development from a number of viewpoints in the surrounding landscape. These illustrate the nature and scale of the proposed development and the impact of this on the rural setting and significance of the Church of St. Mary. The visualisations provided with the applications very clearly show the scale and nature of the proposed developments, individually and cumulatively.
- 2.2.4. These substations, individually and cumulatively, would occupy a considerable area of land and the overall amount or quantum of development would be considerable. They would therefore have a considerable and detrimental impact on the character of the land in the surrounding area and would be visible in longer views.
- 2.2.5. The scale of the substation development overall, its contrasting character to the surrounding rural landscape, impact on these important views. The development would detract from the significance of the designated asset by eroding the historic landscape setting, and would impact upon the experience of the church in its immediate setting, from the land to the north and to the south, and from within the village. Development here, on this scale would also detract from its prominence in the landscape, which reflects its importance within the community and complements the spiritual values of the church.
- 2.2.6. In our view the nature of the development would profoundly change the character of the existing rural landscape. In place of an open agricultural field would be large compounds of electrical buildings and equipment. The alien character of this within the existing rural landscape together with the scale of the development described above would make the development very prominent within the landscape.
- 2.2.7. The existing power line which crosses the land to the north of the development site has been referred to above. The impact of the proposed development would far exceed that of the existing power line. While we accept the existing power lines do detract from the rural landscape, the transparency of the power line and its linear character is very different and in contrast to bulk and mass of the proposed substations.

2.3. The impact of the EA1N and the National Grid (NG) substations on the significance of St. Mary's Church

- 2.3.1. The development of the EA1N and NG substation would be visible in views from the church yard and area immediately to the north of the church. This is shown clearly in the Cultural Heritage Viewpoint 8 (Appendix 24.7 2.2) taken from the War Memorial within the churchyard and again captured in the ES (Figure 29.14) from Church Road just to the north of the church.
- 2.3.2. The existing view from the churchyard is across fields with some trees and hedgerows to the rural landscape to the north. While the existing planting would be supplemented and offer a degree of filtering of views of the development it would remain clearly visible from here, particularly as it appears out of character with the wider rural landscape.
- 2.3.3. The view is more open from Church Road across the open landscape with some trees, hedges and woodland to the east. The power line which crosses this part of the countryside is also visible in the current landscape. The visualisation however again demonstrates the appearance of the substation in particular its scale and mass. The existing hedge line screens the lower part of the development but it starkly contrasts with the natural landscape. The proposed planting along the hedge line would strengthen this vegetation line to filter more of the development. However filtered views above the hedge line would exist and parts of the development would remain visible between and through the planting.
- 2.3.4. The development would affect the experience and views of the church from the land to the north. Here it would change the character of the landscape from rural agricultural land and erode the rural landscape setting of the church. The development would form a visually dominant group of structures in the landscape. There are clear views of the church across this landscape and the visibility and alien nature of the development would compromise and obscure views of the building. This impact can be seen in the viewpoints 1, 4, 5 and 8. (ES Figures 29.13, 29.16, 29.17 & 29.18).
- 2.3.5. Viewpoint 1 is taken from the public right of way near Friston House (which is also listed at Grade II). This is just to the south west of the substation site and gives a clear indication of the nature of the proposed development. It shows the change in the character of the land were the development to be consented. The landscape is currently a rural, agricultural landscape comprising open fields, hedges and areas of woodland. It is traversed by existing power lines supported by pairs of pylons. These detract from the rural landscape to some degree; however the substation development would have a far greater impact. It would occupy a larger footprint on the ground with a denser arrangement of more solid

structures including silos, towers and enclosed structures. This would radically alter the nature of the landscape from rural farmland to that of a large energy substation. This illustration demonstrates how the development would clearly erode the rural landscape within which the church is experienced. The visualisation with planting mitigation after 15 years shows the planting would screen much of development in this particular view. However, the impact on the experience of the church from this area would persist for the lifetime of the project.

- 2.3.6. Viewpoint 4 is taken from the junction of Grove Road and Church Road. Again it illustrates the scale and its alien character within the rural landscape which forms the setting to the church. The strengthening of the planting would help to filter some views, although we are concerned this would not be wholly effective.
- 2.3.7. Viewpoint 5 is taken from the north of the proposed development site from the public right of way near Moor Farm (again also Grade II listed). From here the church is seen across a rural landscape. Although this is currently traversed by the existing power line, the lattice structure of the pylons and the height of the cables allow views through the line which sits above the height of the tree line and church tower. The development would stretch across much of this view. It would not obscure views of the church which lies to the west. However, it would erode the rural setting and appreciation of the church from the north and introduce a much larger modern structure which would detract from the church as a focal point. In views to the east of the viewpoint, the development would clearly obscure the view of the church. Parts of the national grid substation would rise above the treeline of the wood. After 15 years the strengthening of the hedge line in the foreground would screen much of the development excepting some of the taller parts. However, again it would characterise the experience of the church from the north.
- 2.3.8. The Cultural Heritage Viewpoint 4 (Appendix 24.7) in particular shows the clear impact of the development on the view from the footpath from Moor Farm and how it would obscure views of the church. In terms of the relationship between the land to the north of the church and the church, this is one of the most important vistas. In particular the way in which the church is experienced in its landscape setting when moving south from Little Moor farm along the footpath towards the village. The prominence of the church and its dominance as a key landmark will be lost.
- 2.3.9. Viewpoint 8 is taken from the Saxmundham Road under the existing power lines across the fields to the north of Friston. Here the impact of the existing power lines is seen. The development would lie to the south of this where it would be seen against the wood and add a significant level of development to the rural

landscape. The planting would add a modest additional screening to the existing hedge line.

- 2.3.10. The development would also greatly impact on key views of the church from the south. There would be some erosion of the views from the village green. This is shown in viewpoint 6 (ES Figure 29.18) from the Saxmundham Road across the village green. The existing view illustrates how the church and its tower act as a landmark rising above the houses. From here some of the upper parts of the substations would be visible over the roofs of the houses in glimpsed views. The planting would not offer mitigation from here. Although existing two pylons are visible in the distance, the development would introduce a further alien element to the rural context of the church. It would erode the rural setting of the church and compromise the appreciation of the building.

2.4. The impact of the EA2 and the NG substations, and the cumulative impact of EA1N, EA2 and the National Grid substation on St. Mary's Church

- 2.4.1. From within the churchyard the EA2 substation would be more visible than EA1N and from Church Road EA1N would have greater prominence. The construction of both would clearly increase the impact. From Church Road and where both developments are shown, the plant is visible across much of the view between the two existing pairs of pylons. The proposed planting along the hedge line would strengthen this vegetation line to filter more of the development but these are filtered views above the hedge line and parts of the development would remain visible between and through the planting, consequently occupying much of the view. The development would clearly and dramatically change the character of the rural landscape.
- 2.4.2. In viewpoint 1 it is clear that the cumulative impact of both developments increases the amount of infrastructure that is visible although EA2 is partially screened by EA1N with the exception of a part to the south. The visualisation with planting mitigation after 15 years shows the planting would potentially screen development in this view.
- 2.4.3. The Cultural Heritage Viewpoint 4 (Appendix 24.7) in particular shows the clear impact of the EA2 on the view from the footpath from Moor Farm and how it would obscure views of the church. EA2 and the NG substation are clearly the most visible in terms of mass however the cumulative effect of both substations will completely obscure the view of the church. The mitigation does not seek to lessening the impact from this view and the footpath itself will be diverted which further harms the setting by changing the way in which the church is experienced when walking south towards the village. As set out above we consider this is one of the most important of the provided vistas to illustrate the relationship between

the land to the north of the church and the church. In particular the way in which the church is experienced in its landscape setting when moving south from Little Moor farm along the footpath towards the village. The cumulative impact of the entire proposed infrastructure will mean the prominence of the church and its dominance as a key landmark will be entirely lost.

- 2.4.4. Viewpoint 4 is taken from the junction of Grove Road and Church Road. Again the addition of EA2 increases the density of development although this is in part screened by existing woodland in this view. The strengthening of the planting helps to filter some views.
- 2.4.5. In viewpoint 5 EA2 is located behind the national grid substation but its presence would create a denser development. After 15 years the strengthening of the hedge line in the foreground would screen much of the development excepting some of the taller parts.
- 2.4.6. Viewpoint 6 shows the view from the Saxmundham Road across the village green. EA2 would be more visible than EA1, sitting to the east of this. The existing view illustrates how the church and its tower act as a landmark rising above the houses. From here some of the upper parts of the substations would be visible over the roofs of the houses in glimpsed views. The planting would not offer limited mitigation from here. Although existing two pylons are visible in the distance, the development would introduce a further alien element to the rural context of the church. It would erode the rural setting of the church and compromise the appreciation of the building.
- 2.4.7. Viewpoint 8 shows the view of the church from here would be significantly compromised by the substation development. The cumulative impact of both developments extends the plant much further to the east and is considerable. These would create a backdrop of additional, tall electrical plant that by virtue of its scale and alien nature within the landscape would seriously erode the rural landscape setting of the Church and how it is appreciated. In this key view, the planting would have almost no effect in screening the development, and we are concerned that the impact on these views could not be mitigated further.
- 2.4.8. Most significantly the long view of the nave and tower of the church from south of the village would be severely compromised by the backdrop of the substations. This is shown in Viewpoint 9 (ES Figure 29.21) from south of the village on the B1121 Aldburgh Road. This illustrates a long view towards the church across fields where both the nave and tower of the church are clearly visible. The existing power line is seen behind the church and is an existing and negative feature. However, this has a transparent nature so although the pylons are much taller than the church; the solid character of the building allows it to remain a

focal point. The cumulative development of the substations would create a backdrop of additional, tall electrical plant that by virtue of its scale and alien nature within the landscape. In this fine view of the church, the building and its significance would be compromised by the Substations. These would create a backdrop of additional, tall electrical plant that by virtue of its scale and alien nature within the landscape would erode the rural landscape setting of the building and how it is appreciated. In this key view, the planting appears to have no effect in screening the development. The impact of EA2 is the greatest from this location where the development is seen to the east of the church and the mass of the main structure erodes the prominence of the church.

- 2.4.9. In summary our concern is the development would impact on views from the church and its immediate vicinity to the north and in key views of the church from the north. Again from the south across the village green, and in the long views to the south of the village. No visualisations have been produced of the fine views of the church from the south east from Grove Road but these are also likely to be considerable. The presence of such a large development so alien in character to the existing rural landscape would comprise important views of the building and how the church is experienced. It would change the rural landscape that has formed the setting of the church for centuries. The scale and mass of the development would erode the prominence that the church has had within the village and its vicinity over several hundred years which reflects its importance to the community for the majority of that time. It would also erode the largely unspoilt nature of the landscape which complements the spiritual and communal values of the building.
- 2.4.10. We accept the effects within and from the landscape vary between EA1N and EA2 depending on the viewpoint and between the AIS and GIS substations however both individually and in relation to the cumulative impact Historic England considers this would result in significant effect a very high level of harm to the significance of the grade II* church. In EIA terms we would see that as equating to a medium to high level of harm resulting in a major adverse and significant effect.

2.5 **Additional comments in relation to Chapter 24: Archaeology and Cultural Heritage**

- 2.5.1 We note that the below ground archaeological remains have not as yet been fully evaluated through non-intrusive and intrusive evaluation approaches. Interpretations should therefore be regarded as preliminary until the outstanding survey work has been completed (see Chapter 24.1, paragraph 7). We considered for example there is a possibility of locating archaeological sites of equivalent significance to designated heritage assets (see 5.8.4 of the NPS for



energy), and the lack of fully pre-determination evaluation provides risks in that regard. We also noted this in our PIER letter. In this landscape we would be particularly interested in prehistoric settlement and distribution of burial features as these, particularly upstanding barrows are the dominant surviving designated archaeological features in the landscape.

- 2.5.2 The embedded mitigation strategy that will be employed for the onshore archaeology has been presented in Section 24.3.3 and in Table 24.3. We are pleased to see that the main mitigation approach used will be avoidance, micro-siting and route refinement. The detailed design of the onshore elements will be informed by evidence such as the archaeological assessment of the geophysical surveys (paragraph 36).
- 2.5.3 It is stated in Section 24.5.3.1 that there is the potential for the non-designated heritage assets to suffer from both direct and indirect impacts as a result of the proposed development (paragraphs 118 & 119). It should be noted that the cable route has not yet been fully evaluated and therefore the full extent of any impacts cannot be determined in detail. It is stated that some remains, such as the earlier prehistoric remains are likely to only be discovered during intrusive archaeological investigation and could be of up to national importance (Section 24.5.3.2.1.1, paragraph 130). Despite this, the archaeological potential of the onshore development area has been classed as being 'medium' at this stage (Section 24.5.3.2.1.1, paragraph 129). We would therefore ask the applicant to consider whether this is appropriate.
- 2.5.4 We are pleased to see that additional mitigation measures will be employed to investigate and assess deposits of palaeoenvironmental/geoarchaeological potential, which will likely include a programme of geoarchaeological monitoring of engineering-led GI works. This will also identify the additional work that is required (Section 24.6.1.4.2, paragraph 224).
- 2.5.5 Section 24.6.1.5 discusses the potential impact that the bentonite drilling fluid used in HDD may have on buried archaeology. We are pleased to see that a strategy has been developed to mitigate the risks of bentonite slurry outbreak to ensure that fluid pressures are monitored and an action plan developed so that any breakout will be handled quickly and efficiently (Section 24.6.1.5.1, paragraph 230). Historic England would like to see the action plan to ensure that the buried archaeology will be managed appropriately in relation to the potential impact upon the historic environment.



2.6 Comment son Document 8.5: Outline WSI Archaeology and Cultural Heritage (onshore)

- 2.6.1 It is acknowledged that this is an outline WSI, and that final survey-specific pre-construction and construction related mitigation WSIs will be produced post consent (Sections 1.1, 1.3 and 7). The outline WSIs will set out the general principles, strategies and methods that will be implemented post-consent, and will include set-piece excavations, Strip, Map and Sample investigations, and archaeological monitoring/watching briefs (Section 1.1, paragraphs 12 & 13).
- 2.6.2 The aims and objectives of the proposed Trial Trench excavations would appear to be adequate and relevant (Section 6.2 & Appendix 3). It is good to see that Geoarchaeological and Palaeoenvironmental survey work has also been included in the proposed works and that guidance will be followed and referenced where relevant.
- 2.6.3 We support an approach which seeks opportunities to preserve sites in situ. We also recommend that the Historic England document 'Preserving Archaeological Remains' (2015) is referenced.

2.7 Comment on Appendix 3: WSI for a programme of Targeted Archaeological Trial Trenching

- 2.7.1 An outline of the environmental sampling strategy has been provided in Section 7.5, stating that a number of different types of samples will be considered where appropriate, including the collection of monolith and specialist samples to assess plant remains, pollen, waterlogged wood etc. which is good to see. It is also stated that 40-60L samples will be collected from deposits such as occupation and midden deposits, and ditch and pit fills. It is however, important at the evaluation stage to collect samples from all types of deposits that are relevant to the aims of the sampling strategy, as many classes of environmental material are not visible to the naked eye, such as chaff fragments and small weed seeds (HE 2011, p9). The samples should also be processed in a timely manner to ensure that the archaeological remains are stable. We recommend this section is amended to cover this point.
- 2.7.2 Section 7.11 states that all artefacts will be washed, but it should be noted that some remains, such as pottery vessels where organic residues are preserved, should be excluded from this. Washing may remove delicate archaeological evidence, which may provide information about what was stored in a vessel. We recommend this section is amended to include this point

- 2.7.3 Section 9.1 discusses the post-excavation work. It is not clear if any of the samples will be processed to inform the interim report, as it is stated that the full analysis of all finds and environmental samples will take place at the earliest time after the interim report has been completed. The evaluation of environmental samples will contribute to the understanding of the potential and significance of the archaeological resource, as stated in the Historic England document, 'Environmental Archaeology' (2011). We would therefore recommend that samples assessed as part of the evaluation stage of works and the WSI is amended accordingly.

3. LEGISLATIVE AND POLICY CONTEXT

3.1 Planning Act 1990

- 3.1.1 In determining this application the statutory duty of section 66(1) of the Planning (Listed Buildings and Conservation Areas) Act 1990 to have special regard to the desirability of preserving listed buildings or their setting or any features of special architectural or historic interest which they possess should be borne in mind.

3.2 EN-1 Overarching NPS for Energy

- 3.2.1 The Overarching National Policy Statement for Energy EN-1 sets out the National Policy Statement for Energy infrastructure (see 5.8). It recognises that the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment
- 3.2.2 Of relevance to the trenched evaluation here is 5.8.4 which notes that heritage assets with archaeological interest that are not currently designated as scheduled monuments, but which are demonstrably of equivalent significance may include, those that have yet to be formally assessed for designation, those that have been assessed as being designatable but which the Secretary of State has decided not to designate; and, those that are incapable of being designated by virtue of being outside the scope of the Ancient Monuments and Archaeological Areas Act 1979.
- 3.2.3 Section 5.8.12 considers that in considering the impact of a proposed development on any heritage assets, the Examining Authority would need to take into account the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. It continues that account should be taken of the desirability of sustaining and, where appropriate, enhancing the significance of heritage assets, the contribution of their settings and the positive contribution they can make to sustainable communities and economic vitality. The Examining Authority would also need to take into account

the desirability of new development making a positive contribution to the character and local distinctiveness of the historic environment (5.8.13).

- 3.2.2 There should be a presumption in favour of the conservation of designated heritage assets and the more significant the designated heritage asset, the greater the presumption in favour of its conservation should be. This is because, once lost heritage assets cannot be replaced and their loss has a cultural, environmental, economic and social impact. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. Loss affecting any designated heritage asset should require clear and convincing justification (5.8.14).
- 3.2.3 Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss (5.8.15).
- 3.2.4 In relation to development affecting the setting of a designated heritage asset, it states that applications should be treated favourably that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, any negative effects should be weighed against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval (5.8.18).
- 3.2.5 The policy that is set out above echoes that which is set out in the National Planning Policy Framework. This also includes a definition of the setting of a heritage asset, 'the surroundings in which a heritage asset is experienced.
- 3.2.6 Setting of heritage assets is considered further in the Planning Practice Guide. This sets out how the extent and importance of setting is often expressed by reference to the visual relationship between the asset and the proposed development and associated visual/physical considerations. It also notes that although views of or from an asset will play an important part in the assessment of impacts on setting, the way in which we experience an asset in its setting is also influenced by other environmental factors such as noise, dust, smell and vibration from other land uses in the vicinity, and by our understanding of the historic relationship between places. It continues that the contribution that setting makes to the significance of the heritage asset does not depend on there being public rights of way or an ability to otherwise access or experience that setting. When assessing any application which may affect the setting of a heritage asset, local planning authorities may need to consider the implications of cumulative change.

3.3 The Historic Environment Good Practice Advice in Planning, GPA 3

- 3.3.1 This provides further advice on setting. This provides general advice on understanding setting and how it may contribute to the significance of heritage assets. In particular its notes that setting is often expressed as views and that those which contribute to significance can include where relationships with other heritage assets are particularly relevant (page 10). The document makes specific reference to church towers

'Being tall structures, church towers and spires are often widely visible across land- and townscapes but, where development does not impact on the significance of heritage assets visible in a wider setting or where not allowing significance to be appreciated, they are unlikely to be affected by small-scale development, unless that development competes with them, as tower blocks and wind turbines may. Even then, such an impact is more likely to be on the landscape values of the tower or spire rather than the heritage values, unless the development impacts on its significance, for instance by impacting on a designed or associative view.'

- 3.3.2 The document also provides a staged approach to taking decisions: identifying heritage assets affected; assessing how setting contributes to significance; assessing the effect of the proposals on significance; exploring how to maximise enhancement and avoid or minimise harm and making and documenting the decision.

4.0 Historic England Position: Onshore Historic Environment

4.1 St Mary's Church, Friston

- 4.1.1 We have set out in the statement above how the setting of the Church of St. Mary contributes to its significance and the impact that we consider the proposals will have on this significance, both individually and as a combined scheme. Having considered all the evidence our conclusion is that this development would result in a very high level of harm to the significance of the grade II* church. In ES terms we would see that as equating to a medium to high level of harm resulting in a major adverse, and significant, effect.
- 4.1.2 There is some clear difference between the schemes in certain views, and this is set out above however the impact of the developments both individually and cumulatively remains high, and the effect we consider would still be in the major adverse category.



- 4.1.3 The Environmental Statement considers the impact at construction, operation and decommissioning. The indirect impact of construction and decommissioning are considered to be of short duration or temporary and therefore not subject to detailed assessment (ES 158). The effects result from the presence of construction equipment and vehicles and environmental impacts such as dust and sound (ES 216). These are considered to be temporary or short in duration and therefore not resulting in material harm or being assessed further (ES 217). Historic England agree therefore that the impact of the operation phase is the most important to consider given this would be a long standing residual impact. However, the adverse impact of the construction phase, which is likely to be of some time, and the harm that additional construction equipment and vehicles and environmental impacts of this would have on the rural landscape setting of the Church of St. Mary should not be dismissed.
- 4.1.4 The Environmental Statement assesses the heritage importance of St. Mary's Church as high, the magnitude of impact as low and the significance of effect as moderate adverse (ES Table 24.21). A low magnitude of impact is defined as 'Elements of the asset's fabric and/or setting which contribute to its heritage significance are affected, resulting in a slight loss of heritage significance.' (ES Table 24.8). Using the significance of effect matrix table (ES Table 24.9) this equates to moderate adverse effect.
- 4.1.5 Historic England's assessment of the magnitude of impact differs. We consider that it should be set at medium, which is considered to be

'Elements of the asset's fabric and/or setting which contribute to its significance are affected, but to a more limited extent, resulting in an appreciable but partial loss of the asset's heritage significance.'

Or even high, which is stated as

'Key elements of the asset's fabric and/or setting are lost or fundamentally altered, such that the asset's heritage significance is lost or severely compromised.'

- 4.1.6 Either magnitude of impact would result in the effect being assessed as 'major adverse.' This is defined as (see Tables 24.10)

'Change in heritage significance, both adverse and beneficial, which are likely to be important considerations at a national or regional level because they contribute to achieving national or regional objectives. Effective/acceptable mitigation options may still be possible'. (Tables 24.10)



- 4.1.7 The detailed assessment which has informed the assessment in the Environmental Statement is found in Appendices 24.3 and 24.7. This considers that visual change is the only aspect that could be changed in a way that would materially affect heritage significance (24.3, 13). Noise levels were also considered but a commitment from the application that the design would not exceed agreed noise limits at the nearest noise sensitive receptors led to the conclusion the change in noise levels would not be sufficient to materially affect heritage significance (24, 3.14).
- 4.1.8 The detailed assessment of the impact of the development on heritage assets is contained in Appendix 24.7. This considers the impact on the setting of the church from the immediate area, short range views and longer views and concludes that in relation to each 'the contribution made by setting to the significance of the church in these views would not be materially affected with the exception of the view from the footpath to the north from Little Moor Farm (105-108). This leads them to conclude an effect of moderate significance (109). Historic England's assessment of impact is set out above and differs from the applicant's for the reasons expressed.
- 4.1.9 The Environmental Statement also considers the cumulative assessment of the impact of EA1N and EA2. This considers two construction scenarios, the first the substations are built simultaneously or the second, consecutively. The second scenario is considered the worst case scenario on archaeology and cultural heritage (ES 253). The effects result from the presence of construction equipment and vehicles and environmental impacts such as dust and sound (ES 263). This is summarised in Table 24.22 in relation to although in general terms not in relation to individual assets under Indirect Impacts, Changes in Setting. This assesses no impact or change due to being a temporary or short term effect (ES 265).
- 4.1.10 Historic England agree the impact of the operation phase is the most important to consider given this would have the most long standing impact. However, the adverse impact of the construction phase, which is likely to be of some time, and the harm that additional construction equipment and vehicles and environmental impacts of this would have on the rural landscape setting of the Church of St. Mary should not be dismissed. In terms of the cumulative impact of operation which does consider individual heritage assets, this assesses a high heritage importance, low magnitude of impact and a moderate adverse effect (ES Table 24.22). Historic England considers the magnitude of impact to be medium to high. This would result in a major adverse effect.
- 4.1.11 The legislative context sets out the desirability of preserving listed buildings and their setting. This is reinforced in EN-1 and the NPPF and accompanying

Planning Practice Guide. These restate the value of heritage assets for this and future generations. The presumption in favour of their conservation and the greater their significance, the greater this presumption should be. The Church of St. Mary is a grade II* listed building, putting it in the top 8% of all listed buildings. The presumption in favour of its conservation should therefore be high. The policy continues that any loss of impact requires a clear and convincing justification and a harmful impact should be weighed against the public benefit of the proposal.

- 4.1.12 The proposal would clearly deliver public benefits and it is for others to assess and weigh these benefits. However, in view of the high level of harm the proposal would cause to the highly graded Church of St. Mary, we object *to the substation aspect* of the proposal and ask that great weight is given to the conservation of the church in the decision making process.
- 4.1.13 In terms of mitigation, the ES for both schemes provides embedded mitigation for the Historic Environment in relation to St Mary's Church and this is in the form of screen planting, woodland creation and restoration of hedgerows. This is set out in the OLMP (see ES 8.7), and through engagement the historic environment has been considered with in these proposals (see 8.7, 60). We note however that the LPA ecologists and landscape teams have raised concerns about the degree to which the planting would be successful, in particular the growth rates in relation to environmental considerations location and so on, and that what is expressed in the application may be considered to be a 'best' rather than a 'worst' case scenario. We fully acknowledge that this is not an area of expertise for Historic England and that we do not have the same degree of local or topic knowledge on which to draw. We are however concerned that if the embedded mitigation does not perform to the degree that is stated in the applications then this will reduce the efficacy of the mitigation and reduce the degree to which the harm to the historic environment is reduced. This would therefore be something to be considered when weighing the balance.

5. COMMENTS IN RELATION TO THE ENVIRONMENTAL STATEMENT: OFF-SHORE

5.1 Offshore and Intertidal Archaeology and Cultural Heritage - Document Reference: 6.1.16.

- 5.1.1 As set out above the comments below are applicable to both the EA1N and EA2 applications. Only where comments differ have specific document references been clearly detailed.



- 5.1.2 The EIA (Chapter 16) identifies, describes and assesses in an adequate manner, the potential direct and indirect effects of the EA1N and EA2 on the marine historic environment and we are broadly content with the approach.
- 5.1.3 To ensure that the environmental impact assessment and the resulting decision involve full consideration of archaeological sites and their settings, we request that the European Convention on the Protection of the Archaeological Heritage (revised) (Valletta 1992) is referenced appropriately. This is also of relevance to the outline Offshore Written Scheme of Investigation (Offshore WSI see 8.6) where provision need to be made, where feasible, for the in situ conservation of heritage assets found during development work. We have made further specific comments on Offshore WSI below.
- 5.1.4 The ES states the assessment of impacts has been undertaken in accordance with the 2017 EIA Regulations. Chapter 5 'Environmental Impact Assessment Methodology' outlines an acceptable approach whereby the EIA should be based on clearly defined environmental parameters. These would define the range of development possibilities and hence the likely environmental impacts that could result from the project. With Section 16.3.2 'Worst Case' further stating that the full design parameters of the proposed project have yet to be fully determined, and may not be known until sometime after the consent, should it be granted.
- 5.1.5 Table 16.1 'Realistic Worst Case Scenarios' presents the summarised maximum possible effect upon the offshore archaeological and cultural heritage resource within the study area. We feel to ensure clarity, Table 16.1 should elaborate on whether the "20m maximum width along cables" related to "Pre-grapnel run / sweeping (boulder clearance)" will be applied to the full extent of individual cables - both Export and Array. Furthermore, it is unclear whether this has been considered more generally within Chapter 6 'Project Description'. There appears to be no specific detail related to pre-lay grapnel clearance work or whether it has been included within Table 6.19 'Total Area, Volume and Maximum Daily Sediment Volume Interaction Calculations during Cable Installation' for instance. Further clarification is needed in that regard.
- 5.1.6 We are also seeking clarity as to whether the worst case scenario relating to the "maximum area of sea bed disturbance" of offshore export cables is associated with the route options of 'Northern' or 'Southern' export cables for both EA1N and EA2? Furthermore, subject to consent for both developments, there is also uncertainty as to how these pre-commencement works will be undertaken. We recommend that a phased approach should be implemented, whereby the complete pre-construction and even partial construction of a single projects export cable is undertaken ahead of another, it becomes a seabed constraint in its own right, therefore limiting the flexibility for the placement of the other OWF

project along a shared export cable route. As a result this presents an important consideration that needs to be captured in Chapter 16. In particular how embedded mitigation measures can be delivered (to avoid and reduce any prospect of significant impacts to features of the historic environment), with a similar implication upon factoring in the export cable route of the consented EA Three OWF amongst the two proposed array areas.

- 5.1.7 We consider the geophysical survey data coverage, quality and techniques, and the assessed and interpreted information presented, is sufficient to characterise the known and potential features of the marine historic environment within the EA1N and EA2 OFW study area. Tables 16.5 and 16.6 summarise the geophysical data assessed within the wind farm area and export cable route respectively, including the quality of the data and the line spacing used.
- 5.1.8 We have stated in our response to the PEIR (HE letter dated 26th March 2019) that the sub-bottom profiling line spacing used were generally much larger than those recommended in our guidance (see Historic England Marine Geophysics 2013). The data included in Tables 16.5 and 16.6 are the same as presented in the PEIR document. We consider that to adequately address Historic England's requests at the PEIR stage additional sub-surface stratigraphic profiling techniques would need to be considered in the survey strategy at post-consent. It would be important to have further discussions with the applicant and their appointed archaeological contractor, in relation to the above guidance, and to ensure that we receive method statements for all surveys undertaken during post-consent.
- 5.1.9 Section 16.5.2 adequately summarises the known maritime and aviation archaeology recorded within the wind farm and cable corridor development area. It also notes that large quantities of the geophysical seabed anomalies are currently classed as 'A2', and are of uncertain origin. Possibly they are of archaeological interest, even at this stage, and many of these relate to magnetic only anomalies (Tables 16.13 & 16.16, paragraph 95). It was also noted that it cannot be guaranteed all ferrous items have been identified due to the line spacing used for the magnetometer survey (1000m). We consider that if implemented correctly the embedded and additional mitigation measures set out here (listed in Table 16.2) should ensure appropriate levels of protection or further investigation for archaeological receptors. More specific comments on these measures are detailed below.
- 5.1.10 Chapter 16 consistently refers to the applications proposed embedded and additional means of mitigating impacts within 'Section 16.1.1'. However there appears to be no Section 16.1.1 included within this chapter. Therefore we request that this is amended and clarified appropriately.

- 5.1.11 We are pleased to see that the embedded mitigation includes the avoidance of known heritage assets through the establishment of Archaeological Exclusion Zones (AEZs) or through additional mitigation such as micro-siting. We note that it is unlikely that AEZs will be established for A2 anomalies of possible archaeological origin (Table 16.2). In these cases, the mitigation proposed is that anomalies will be avoided through micro-siting where possible. However, anomalies that cannot be avoided will be investigated further to establish their character, nature and extent. These will need to be subject to discussion with Historic England, so that an appropriate mitigation strategy can be developed on a case-by-case basis.
- 5.1.12 In general, this approach would be satisfactory; however we consider the Applicant would need to define a carefully considered spatial threshold by which anomalies - that cannot be avoided – would be investigated by Diver or ROV. As has been seen on other renewable energy projects this is in part due to the fact that the current high level of seabed anomalies is likely to increase significantly prior to construction, in both the spatial distribution and potential for burial of seabed anomalies, as a result of high resolution and prescriptive geophysical surveys. It is also therefore important for the applicant to understand that a cluster of A2 geophysical anomalies may represent an associated assemblage of archaeological remains, which is not altogether immediately apparent from the geophysical survey alone. Similarly of note, wrecked vessels and aircraft remains can be dispersed over a very wide area. Therefore we welcome the opportunity to discuss the investigative strategy in more detail at a later date subject to consent; this is especially the case in view of recent work carried out within the southern North Sea region, specifically the EA1 OWF project.
- 5.1.13 Within the context of the of the turbine array locations, it is stated that secondary impacts, through increased erosion, may be experienced in the area surrounding each turbine, but will be mitigated either through the implementation of appropriate AEZs for A1 anomalies, and micro-siting for A2 and A3 anomalies (paragraphs 179-180 and Table 16.2). We are seeking further clarification from the applicant on this matter as there is more than one occasion in the environmental statement (ES) where the A3 recorded sites are listed as having a 100m AEZ around the centre point of the recorded location, specifically Table 16.24 (EA1N) and 16.22 (EA2). Given the locations and nature of the listed A3's, we feel AEZ's should be considered appropriate in this particular instance.
- 5.1.14 We would like to raise the point that when establishing AEZs for maritime and aviation heritage assets, their specific tolerances to change (within the environment they are situated) can vary. It is not always possible to measure or account for such factors without appropriate survey and investigative data –

whilst also balancing adequate seabed space for the development. Consequently understanding the significance of individual heritage assets and the potential development impact depends on how detailed the provision to attain targeted information can be from the outset; and in incorporating archaeological advice. The individual AEZs that are then implemented are done so to work as effectively and proportionately as possible during construction, operation and decommissioning. With the provision of post-construction monitoring that follows, utilising acquired high resolution acoustic images in which to determine change against the previously recorded baseline conditions.

- 5.1.15 It is also worth noting that some AEZs currently being implemented may also be subject to change, in view of more comprehensive geophysical surveys being undertaken (subject to consent). These surveys might indicate outlying anomalies close to wreck sites that will need to be preserved in relation to their associated centrally located assemblage. Therefore, whilst such mitigation is embedded, it is not to be viewed without the possibility of modification.
- 5.1.17 Section 16.5.6 discusses the ‘anticipated trends in baseline conditions’ within the proposed development area. It is noted that the landfall location is within a dynamic stretch of coastline, with coastal erosion and shoreline retreat, including the collapsing cliffs (EA1N paragraph 134 and EA2 paragraph 135). This may have a positive or negative impact on any heritage assets in the area, either by eroding them or by covering them in material. More generally the direct and indirect changes that the development may have on heritage assets are discussed in Section 16.6 ‘Potential Impacts’ in terms of how assets may be degraded/damaged or protected, and Section 16.6.2.3 in terms of the negative impact that scour protection installed on the turbines may have on nearby buried archaeology (paragraph 176).
- 5.1.18 The potential impact of a breakout of drilling fluid used in the HDD process has been discussed in Chapter 16.6.1.5 in terms of how this could impact buried archaeology (paragraphs 169). We are pleased to see that this has been considered for this project, and that a strategy that will be employed to minimise the potential for breakout has been devised. Any mitigation required to manage fluid breakout would also need to take into consideration historic environment impacts.
- 5.1.19 We are also pleased to see that the potential for previously undiscovered prehistoric site and deposits of palaeoenvironmental interest are being considered (Section 16.5.1, paragraph 72 in EA1N & 73 in EA2), and the information provided in Table 16.12 regarding the archaeological potential of each of the identified units is very useful. The discussion of the potential complexity of these deposits and the presence of organic layers, as indicated by

the existing geophysical survey and geoarchaeological evidence was good to see as this demonstrated the information that this project can add to our understanding of sea-level change and the changes to environments and landscapes over time. We also welcome the included reference to recent geoarchaeological evidence from consented developments such as EA1.

- 5.1.20 We agree that the direct impacts the proposed development may have upon potential heritage assets are generally considered to be of potentially major adverse significance (Section 16.6.1.2, paragraph 156).
- 5.1.21 Table 16.22 summarises the assessments of heritage significance (importance); we are pleased to see that palaeoenvironmental material has been included in the assessment, and is classified as being of high significance if the material was associated with specific palaeolandscape features.
- 5.1.22 The assessment of cumulative impacts is consistent with the agreed methodologies. We do however consider that there exists the potential for a variety features and remains to be found within the development area. These could represent not only individual heritage assets, but also those rarer sites that may be connected to significant past events, and thereby form a broader group value whilst contributing to the story of a landscape or seascape.
- 5.1.23 The marine environment is also unique in that the majority of the individual heritage assets that reside within it, such as the remains of ships and aircraft - due to their transient nature - retain stories of the crew, vessel construction, trade, immigration, emigration and conflict. These individual elements have the potential to link numerous geographical locations, both on land and at sea. Shipwreck sites in particular hold value and significance in many ways, and are linked to many places. Any such discoveries are therefore likely to be of interest to the public and provide excellent opportunities to engage with local audiences and communities through outreach and educational programmes. The scale of the proposed project could potentially bring opportunities to inform a broader collective understanding of heritage, be it prehistory or though military remains for instance, which could be drawn upon and expressed for Suffolk communities and the broader region to learn about.
- 5.1.24 We therefore feel the applicant would need to consider in more detail how the scheme can address wider public benefits, and how they will develop academic research and create joined-up objectives. In this regard we welcome the stated approach that archaeological information generated by survey and other mitigation measures will be used to contribute to the gradual build-up of knowledge of previously unidentified submerged landscapes offshore. With Section 16.7.3 'beneficial impact of accumulation of data' in particular including



reference to European neighbours and their initiatives and frameworks for submerged archaeological landscapes, which is not an element of an assessment we have seen detailed within an application before.

- 5.1.25 The cumulative impact section (16.7) however needs to address the likelihood for cable crossing points. This is due to the fact that alongside the consented East Anglia Three development (which includes up to four individual offshore export cables and up to two fibre optic cables), there are a number of other existing cables (as depicted in Figure 6.3) that traverse the study area, which could create areas for which micro-siting may not be possible. Additionally regard to the potential for a centrally located offshore substation, where a number of array cabling converge offers additional risk, for which embedded measures of mitigation may become difficult to accommodate.

5.2 Oceanography and Physical Processes – Document Reference: 6.1.7

- 5.2.1 The approach to micro-siting will need to carefully consider the evidence obtained from the pre-construction surveys that are planned, as well as the limitations in the approaches used, and the data that will be collected. In addition, the impact that changes to coastal processes may have on heritage assets needs to be discussed in more detail. Heritage assets are briefly mentioned in Table 7.43 (EA1N & EA2) in the Marine Geology, Oceanography and Physical Processes chapter (Ch7), but the details of the embedded mitigation strategy set out in this chapter needs to be discussed with heritage in mind (either in Chapter 7 or in Chapter 16), such as the use of scour protection (Chapter 7, Section 7.6.2.4).
- 5.2.2 It is stated in Section 7.3.4 that monitoring will form a major part of the management strategy (EA1N paragraph 63 & 64 EA2), and we note Section 1.6.10 'Marine Archaeology and Cultural Heritage' and Table 1.4 in the project specific *In principle Monitoring Plan* (ES document: 8.13) in this regard. With specific requirements relating to monitoring during post-construction (including a conservation programme for finds) as detailed in the Outline Written Scheme of Investigation (Offshore) – document: 8.6. Notably the ES states that the reporting Protocol for Archaeological discoveries (PAD) shall be followed during all intrusive works.

5.3 Offshore In-Principle Monitoring Plan - Document Reference: 8.13

- 5.3.1 Table 4 'In Principle Monitoring Proposed – Offshore Archaeology and Cultural Heritage', under the column heading 'Monitoring Proposal', reference is made to "The WSI includes provision to update the document as the project design is refined and as the results of further archaeological assessment become



available". As such this should be amended to read "The *Outline* WSI includes provision to update the document as the project design is refined and as the results of further archaeological assessment become available. With the final agreed WSI acting as a 'point-in-time' document and submitted to the Marine Management Organisation (MMO) 6 months in advance of the licensed activities".

5.4 Offshore Windfarm Archaeology and Cultural Heritage Outline Written Scheme of Investigation (Offshore) - Document Reference: 8.6

- 5.4.1 It is acknowledged that this is an outline (offshore) Written Scheme of Investigation (WSI), and that the final offshore WSI will be developed post-consent in consultation with Historic England and the Suffolk County Council Archaeological Service (Section 1.1.3).
- 5.4.2 The outline strategy presented in this document appears to be sensible and appropriate but we look forward to seeing the detailed WSI subject to consent being granted. It is also acknowledged that the area of the proposed development has the potential to contain remains of archaeological and historic interest: a number of the sediment units have the potential to contain archaeological and palaeoenvironmental remains of interest (Section 1.2.2), and over a 800 (EA2) and 500 (EA 1N) features (classed as either A1, A2 or A3 anomalies) have been identified as part of the geophysical survey work, ranging from magnetic anomalies to previously known wreck sites (Section 1.2.3).
- 5.4.3 In order to fully account for impacts to heritage assets discovered in the pre-construction planning and clearance work that pose a development constraint, we recommend the offshore Outline WSI consider in greater detail appropriate mechanisms to ensure effective archaeological work is supported through a phased approach. Furthermore, should the remains investigated under such provisions prove to be of exceptional national importance - an extension of the period of time available must be afforded for a more detailed evaluation, in doing so this will enable a clearer understanding of their significance and likely extent. The results would therefore inform where a need to potentially preserve such remains in situ is necessary (through a revised engineering design where feasible), or allow a period commensurate with the construction timetable, for archaeological works in accordance with CIFA standards and guidance, and other relevant expert advice.
- 5.4.4 We feel this approach aligns better with EN-1, paragraph 5.8.22 whereby should there exist a high probability that a development site may include as yet undiscovered heritage assets with archaeological interest, then requirements for

appropriate procedures for the identification and treatment of such assets should be considered.

- 5.4.5 Ideally a strategy for heritage assets (artefacts, structures, deposits of archaeological interest) encountered early on in the design planning phase should consider limiting delays in carrying out necessary archaeological work. This is to account for discrete and sensitive remains and deposits, so that they can be protected and/or sampled in a timely manner in order to mitigate any damage, degradation or the potential loss of the remains.
- 5.4.6 We note that paragraph 95 of the outline offshore WSI states that an archaeological watching brief may be required in areas subject to clearance which are considered of medium or high archaeological importance. The watching brief approach has worked effectively on other offshore wind farm projects, notably EA1 in relation to small and isolated remains. However we request that greater detail is included in this particular instance to define what areas of high or medium importance are. Given the scale of past sea and airborne activity, it may be more reasonable to assume it relates to archaeological potential, which could come down to a multitude of contributing factors, such as large extended sand wave features (of notable heights and wavelengths – as picked up on in Chapter 16, paragraph 106, EA2 and 105 of EA1N) concealing archaeological remains, and where large quantities of seabed and sub-seabed anomalies have been recorded. Moreover, potential may also coincide with areas where micro-siting may not be altogether feasible. In particular should the proposed Northern Export Cable Route be the preferred option (Plate 6.10 of Chapter 6 ‘Project Description’) for the EA Two and EA One North projects, the distances between individual export cables, proposed (50m) together with the indicative distance between each project’s pair of export cables (500m) – inclusive of working buffers – may present such an area of risk.
- 5.4.7 The introduction of the proposed wind farm alongside the consented parameters of the East Anglia Three OWF development which includes up to four individual offshore export cables and up to two fibre optic cables, as well as other existing cables (as depicted in Figure 6.3), could generate additional areas for which micro-siting may not be possible, within the array areas in particular.
- 5.4.8 Recent successful surveys undertaken on the EA1, the use of ‘Pulse Induction’ system (such as TSS 440 Pipe and Cable Survey System) or similar, to detect any type of conductive material – including non-ferrous metals - should be considered as part of any evaluation strategy. As this may enable the possibility to account for potentially significant archaeological material, otherwise undetectable by standard means of surveying, such as dispersed and buried military aircraft remains, or discreet shipwreck material.

- 5.4.8 Paragraph 76 of the WSI states that it is possible that certainty as to the nature and extent of individual anomalies (A2s) may only be achieved through the use of drop down cameras or diver/ROV survey. We feel that the use of drop down cameras for the identification of archaeological sites has yet to be proven as an investigative technique, within a development context in English waters. Therefore we would wish to see further explanation of methods and suitability in relation to the identification of heritage assets.
- 5.4.9 Anticipated timeframes for planned offshore geophysical and geotechnical survey works should be included within any post-consent WSI, to outline information as to the staging and reporting in relation to archaeological mitigation.
- 5.4.10 We note the applicant is aware of the limitations of the surveys carried out so far, such as the line spacing's used for the SBP and Magnetometer surveys (Section 1.5.1, paragraph 53). It is acknowledged that smaller palaeolandscapes features may be present in the areas between the surveyed corridors for SBP and Magnetometer, and that additional surveys may be carried out at post-consent (Section 1.5.1, paragraph 55-57). It is also acknowledged that not all archaeological remains are readily identifiable through geophysics survey, and that this will be taken into account when planning subsequent phases of survey work (paragraph 62).
- 5.4.11 Geoarchaeological approaches will be utilised to evaluate the potential of sediment sequences to preserve archaeological and palaeoenvironmental evidence. We are pleased to see that provisions will be made for geoarchaeologists to have access to all further geotechnical data acquired for the project (Section 1.5.2 paragraph 66), and that considerations will be given for 'archaeology only' targeted cores to be collected, which would allow specific questions and techniques to be applied, such as OSL dating (paragraph 68).
- 5.4.12 Section 1.6.3 states that samples obtained as part of the pre-construction works, where deposits suitable for archaeological investigation will be retained, which we support (paragraph 97).
- 5.4.13 We recommend the submission to the Archaeological Curator of a Method Statement (as detailed in paragraph 64) is a minimum of 6 weeks prior to the planned commencement of the survey, in order to allow for sufficient time for the review of the Method Statement and any amendments to be completed and agreed.
- 5.4.14 Further detail is required in Section 1.8 'Archaeological Recording, Reporting, Data Management and Archiving' to say how the reporting and publication

process will occur. This is in regards to the timeframes for the delivery of reports, submission of OASIS forms and deposition of archives.

- 5.4.15 Section 1.9 states that a Protocol for Archaeological Discoveries will be implemented to allow for the retrieval and assessment of unexpected discoveries as a means of a 'safety net'. The protocol will need to include training and for the identification of a 'Site Champion(s)' who would be responsible for reporting the discoveries made.

6.0 Comments on the Draft Development Consent Order

6.1 Document reference 3.1 (Version 1, dated October 2019)

- 6.1.1 The comments are applicable to both the East Anglia Two/East Anglia One North draft Development Consent Orders (DCO) and associated Deemed Marine Licences.
- 6.1.2 Schedule 13 Part 2 – Condition 18.—(1) Any archaeological reports produced in accordance with condition 17(1)(g)(iii) are to be approved by the statutory historic body. As such this appears to be an error, as 17(1)(g)(iii) refers to “archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO within four months of any survey being completed;” which we consider should refer to: 17(1)(g)(ii) “a methodology for further site investigation including any specifications for geophysical, geotechnical and diver or remotely operated vehicle investigations;”
- 6.1.3 Schedule 14, Part 2, Condition 13(1)(g) a provision for “(ii) details of coastal interface;” is included. As such, this is the first time Historic England has seen this within a Deemed Marine Licence, and whilst we can speculate upon its function and meaning we would like its inclusion to be clarified.
- 6.1.4 To ensure a joined up approach on the foreshore between Historic England and Suffolk County Council the relevant offshore transmission assets Schedule 14, Part 2, Condition 13(1)(g) would benefit from being amended as follows:
- “(g) A written scheme of archaeological investigation in relation to the offshore Order limits seaward of mean high water, which must be submitted to the statutory historic body at least six months prior to commencement of the licensed activities and to the MMO at least four months prior to commencement of the licensed activities and which must accord with the outline written scheme of investigation (offshore) and industry good practice, in consultation with the statutory historic body (*and, if relevant, Suffolk County Council*) to include—“



6. Conclusions

6.1 On-shore historic environment

- 6.1.1 As set out above our principal concern is the impact of the proposed substations for EA1N and EA2 on the significance of the grade II* listed Church of St. Mary at Friston. This is individually and then cumulatively when combined with each other and with the additional National Grid infrastructure. We therefore wish to object in principle to the development of the substations for both schemes. Please note that we do not object to the overall principle of the development, particularly in relation to the siting of the turbines (see offshore comments), landfall or cable route.
- 6.1.2 The church is an important, highly-graded designated heritage asset which lies on the northern edge of Friston village. It is appreciated in a rural and largely open landscape enabling views from the south and north, which both enhances its prominence and adds to the appreciation of the building. The landscape that surrounds the church therefore forms part of its setting and contributes to its significance.
- 6.1.3 We believe the scale and appearance of the proposed development, and its location just to the north of the church would significantly change its character and its rural landscape setting. Historic England have assessed the application using the material provided by the applicant and our own judgement and consider the development of the substations, both individually and cumulatively would result in a harmful impact upon the significance of the grade II* church. In EIA terms we would see the development as resulting in a significant effect and a major adverse change. We would consider this to be harm of a very high degree in terms of the NPPF policies, but less than substantial harm.
- 6.1.4 We accept the effects and impacts would vary between EA1N and EA2 depending on the viewpoints, upon the efficacy of the mitigation and between the different types of infrastructure proposed (AIS and GIS substations). We believe however that the substations would not be mitigated successfully in some key views, and the substation developments, and the mitigation its self is potentially harmful in the way that it would alter the immediate environment of the church. The interruption of the critical views from the north and the loss of prominence of the church in the landscape are also of particular concern.
- 6.1.5 We are aware that the proposal is likely to result in harm to other designated heritage assets and although this assessment was outside of our remit. We would anticipate the examining authority would need to consider the impact upon the historic environment as a whole.

- 6.1.6 We are aware of concerns raised by the Council and Local Authority in relation to the efficacy of the mitigation planting, and in terms of proposed growth rates. This is not an area in which we have expertise however our concern is to ensure that any mitigation which is proposed as part of the scheme for the historic environment would deliver an appropriate level of mitigation.
- 6.1.7 We have offered other points in relation to the on-shore archaeological works, and the Onshore WSI.

6.2 Off-shore historic environment

- 6.2.1 In relation to the off-shore historic environment, the large number of geophysical seabed anomalies recorded within the PDA highlights the potential for significant historic environment features to be present. Our concern here is therefore to ensure that the Outline Offshore Archaeological Written Scheme of Investigation considers how the construction can be designed sensitively to take into account known and potential heritage assets.
- 6.2.2 We have identified that the resulting proposals of embedded and additional mitigation - through schemes of investigation have the potential to successfully mitigate impacts to the historic environment through avoidance, but these present opportunities to better reveal the significance of the heritage assets found within the proposed development area

ENDS

