Dogger Bank C/Sofia
Onshore Works Application

Appendix 6 -

Archaeology Assessment
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1 Introduction

1.1 Purpose of the Report

This Assessment accompanies the Environmental Appraisal which is submitted to support the planning application (the Application) made by Doggerbank Offshore Wind Farm Project 3 Projco Limited (the Projco) and Sofia Offshore Wind Farm Limited (SOWFL) (the Applicants), for consent pursuant to Section 62 of the Town and Country Planning Act 1990 as amended1.

A Development Consent Order (2015 DCO) was awarded for Dogger Bank Wind Farm C (previously known as Dogger Bank Teesside A Offshore Wind Farm) and Sofia Offshore Wind Farm (previously known as Dogger Bank Teesside B Offshore Wind Farm) (the Applicants’ Projects), including the onshore transmission works required to export electricity to the grid in August 2015.

The Application includes five areas of alternative and additional infrastructure to the consented 9 kilometres (km) buried onshore grid connection, spanning from the landfall for Dogger Bank Wind Farm C (DB-C) and Sofia Offshore Wind Farm (Sofia) to the National Grid at Lackenby Substation (the Works).

This Assessment determines the potential impacts of the Works in comparison to the 2015 DCO with respect to local heritage (archaeology). Where the potential for impacts is identified, mitigation measures and residual impacts are presented (only where additional to the 2015 DCO).

This Assessment provides a summary of the 2014 DCO Environmental Statement (2014 ES) and 2020 baseline environment and subsequently assesses the potential effects of the Works (Section 4) taking into account the necessary assessment criteria and concludes that the proposed changes have no additional effect on significance.

The information presented in this Assessment demonstrates that there is no alteration to the realistic worst case as assessed and accepted within the 2014 ES (Table 7.1). It can be concluded with a very high degree of confidence that there will be no increase in effects on relevant terrestrial archaeological receptors from those identified within the 2014 ES.

1.2 Development Context

For the ease of reference, the Works, as shown in Figure 1.2 (a – c) of the Environmental Appraisal, is split into areas as below:

- Area 1 – A174 Crossing;
- Area 2 – South of Kirkleatham Memorial Park;
- Area 3 - Wilton East;
- Area 4 - Main Welfare Hub south of Wilton; and
- Area 5 - HVAC Cable Corridor.

1.3 Document Structure

This Report is structured as follows:

- Introduction;
- Methodology;
- Baseline for Assessment;
- Assessment of Potential Effects;
- Mitigation and Enhancement;
- Cumulative Effects; and
- Summary and Statement of Change/No Change.

This Assessment is accompanied by Annex A – Figures.

This Assessment should be read in conjunction with Chapter 27 of the 2014 ES which provides the assessment of terrestrial archaeology for the 2015 DCO Limits.
2 Methodology

2.1 Introduction

This Section outlines the methods used to establish the baseline data, the sensitivity of receptors and the likely implications and potential effects upon them from the Works. The same criteria used in the 2014 ES are utilised in this Assessment, although the Works are not considered likely to give rise to significant environmental effects.

2.2 Guidance

The assessments have been guided and informed by relevant policy, legislation, standards, guidance documents and consultation as outlined in the 2014 ES. There have been no significant changes to the relevant policy, legislation and guidance since the 2014 ES such that its assessment methods or conclusions would be materially changed.

2.3 Study Area

Data was collected from a Study Area within approximately 1 km from the Works. Both the Works and the Study Area fall within the 1 km study area of the 2014 ES. The study comprised:

- A search of the Historic Environment Record (HER), and recent records of archaeological events, conducted in March 2020, in order to establish any changes in the baseline data;
- A walk-over survey of the areas of the Works;
- A review of the existing geophysical data for the 2014 ES in light of the changes to be baseline data;
- A review of the potential effects of the Works, and a comparison of the effects with those defined within the 2014 ES;
- A review of the mitigation measures proposed in the 2014 ES in respect of their application to the Works; and
- Consideration of any new cumulative effects arising.

2.4 Assessment Criteria

2.4.1 Receptor Sensitivity

The 2014 ES relates the sensitivity of the receptor to its importance. Importance is defined in terms of receptor significance, and is determined by professional judgement, guided by statutory and non-statutory designations, national and local policies, and archaeological research agendas. Importance levels are applied on a relative scale (high, moderate, low or negligible). The same method has been used for this assessment.
2.4.2 **Assessment of Impact Magnitude**

The 2014 ES describes the impact magnitude in terms of the magnitude of change to a heritage asset as a result of the development. The magnitude of change is defined at a series of levels (high, medium, low, minimal or no change). The level is determined by the effect of the change on the significance of the asset. The same method has been used for this assessment.

2.4.3 **Assessment of Impact**

The 2014 ES assesses impact as a product of the importance of the asset and the magnitude of change, taking into account embedded mitigation. The level of impact measures the magnitude of change against the importance of the asset, and is defined on a series of levels (major, moderate, minor or neutral). The same method has been used for this assessment.

3 Baseline for Assessment

3.1 **Summary of 2014 ES Baseline**

Baseline data for the 2014 ES was collated in March 2014. The data included heritage assets within the 2015 DCO Limits and a surrounding study area, which comprised 5 km from the 2015 DCO Limits for designated assets, and 1 km for non-designated assets. Desk-based assessment, a walk-over survey, and geophysical survey were utilised to collate the data. Of the assets identified, a selection required assessment in relation to the potential effect of the 2015 DCO. These are listed below.

- Eston Nab Hillfort (Monument ID 1011273);
- Eston Hills Historic Landscape;
- Historic Landscape (general);
- Lackenby: Grade II* Old Hall farmhouse (1139659), grade II stable range (1159438) and byre barn (1329623);
- Kirkleatham Conservation Area;
- Yearby Conservation Area;
- Marske Conservation Area;
- Ryehills farmhouse (1139618), barn (1329632) and garden wall (1310671) all Grade II listed;
- Fell Briggs Farm (1387500) Grade II listed;
- Turner’s Arms Farmhouse (1159818) Grade II listed;
- Site of a brickearth extraction (HER 4049);
- Site of 19th century dovecote (HER 4044);
- World War II pillbox (HER 4950);
- World War II gun emplacement (HER 3585);
- Other potential archaeological sites identified through geophysical survey, primarily four areas of possible prehistoric settlement / enclosure; and
- Previously unrecorded buried archaeology within the construction footprint of the 2015 DCO.

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2 Forewind 2014, ES Chapter 27 Appendix A: Onshore Cultural Heritage Impact Assessment
Of these assets, seven specific areas were identified within the 2015 DCO Limits where mitigation would be required. These are shown on Figure 1, Annex A, and comprise World War I practice trenches (Figure 1, M1), four areas of possible prehistoric settlement/enclosure (Figure 1, M2-M5), a World War II gun emplacement (Figure 1, M6), and the site of a brickearth extraction (Figure 1, M7).

3.2 Review of Baseline

The review of the 2014 ES baseline did not identify any additional above-ground heritage assets which would require consideration as a result of the Works. The review identified that archaeological events had occurred in the Study Area since the compilation of the data for the 2014 ES. The events are summarised in Table 3.1 below and their location is shown on Figure 1, Annex A.

<table>
<thead>
<tr>
<th>Figure reference</th>
<th>PRN EVENT</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>961</td>
<td>Kirkleatham, Sir William Turner’s Hospital: architectural survey</td>
</tr>
<tr>
<td>2</td>
<td>962</td>
<td>Kirkleatham Hall School: excavation and watching brief: early medieval burial ground and remains of post-medieval hall</td>
</tr>
<tr>
<td>3</td>
<td>968</td>
<td>Kirkleatham Walled Garden: heritage assessment</td>
</tr>
<tr>
<td>3</td>
<td>1006</td>
<td>Kirkleatham Walled Garden: heritage assessment</td>
</tr>
<tr>
<td>3</td>
<td>1002</td>
<td>Kirkleatham Walled Garden: geophysical survey</td>
</tr>
<tr>
<td>3</td>
<td>n/a</td>
<td>Kirkleatham Walled Garden: archaeological recording</td>
</tr>
<tr>
<td>4</td>
<td>988</td>
<td>Land south of Redcar Road, Redcar: heritage assessment</td>
</tr>
<tr>
<td>4</td>
<td>989</td>
<td>Land south of Redcar Road, Redcar: geophysical survey: cultivation remains</td>
</tr>
<tr>
<td>5</td>
<td>1004</td>
<td>Kirkleatham, St Cuthbert’s Church: building recording</td>
</tr>
<tr>
<td>6</td>
<td>n/a</td>
<td>Kirkleatham Business Park: desk-based assessment, geophysical survey, watching brief: prehistoric settlement</td>
</tr>
<tr>
<td>7</td>
<td>n/a</td>
<td>Kirkleatham: excavation east of the walled garden: prehistoric, medieval, and post-medieval settlement remains</td>
</tr>
</tbody>
</table>

None of the archaeological events occurred within the planning application boundary for the Works.

The majority of the events relate to known foci of settlement in Kirkleatham in the medieval and post-medieval period (Table 3.1, References 1, 2, 3, 5, 7). As the Works are not located at or near the foci of settlement, the remains identified would not extend into the Works, and they have no bearing on the nature and extent of the archaeological resource within the Works.

Events also relate to the identification of historic cultivation remains (Table 3.1, Reference 4), and to the occurrence of prehistoric settlement at two locations in the vicinity of Kirkleatham (References 6, 7). These add to the general picture of prehistoric settlement and the historic landscape within the Study Area. Historic cultivation remains are known to exist within the footprint of the 2015 DCO and are likely to be present within the Works. Due to the intervening distance between the prehistoric settlement remains and the Works (a minimum of 400 m), the remains do not suggest an archaeological resource within the Works that was unknown at the time of the 2014 ES.
A review of the geophysical data collected for the 2014 ES concluded that one geophysical anomaly should no longer be interpreted as a potential soil-filled archaeological feature, but reflected a service pipe. This anomaly lies within the planning application boundary and is not considered further.

The review of the data concluded that, in light of changes to the baseline data presented in the 2014 ES, there were no other changes to the archaeological interpretations of the geophysical data, or to the identification of areas for mitigation within the Works. The 2014 ES data remains a reflection of the historic landscape features and features of other potential archaeological origins present within the planning application boundary for the Works.

The 2014 ES acknowledged that unidentified archaeological remains may be present within the footprint of the 2015 DCO that are not reflected in the geophysical data. This also applies to the planning application boundary for the Works.

Therefore, there are no significant changes to the baseline data presented in the 2014 ES that are applicable to the planning application boundary for the Works, and there are no new receptors to be considered. Receptors within the planning application boundary for the Works comprise as yet unidentified archaeological remains, including historic cultivation remains.

4 Assessment of Potential Effects

4.1 Summary of 2014 Potential Effects

The 2014 ES concluded that there would be no significant operational, construction or decommissioning effect on non-designated or designated heritage assets situated outside the construction footprint of the 2015 DCO.

The 2014 ES concluded that there was the potential for an effect on non-designated heritage assets as a result of construction within the DCO Limits, as archaeological remains may be removed. These assets are listed below and shown on Figure 1, Annex A:

- Archaeological remains relating to WWI practice trenches (Figure 1, M1);
- Potential archaeological sites identified through geophysical survey (Figure 1, M2-M5);
- World War II gun emplacement (HER 3585) (Figure 1, M6);
- Site of a brickearth extraction (HER 4049) (Figure 1, M7); and
- Previously unrecorded buried archaeology within the construction footprint of the DCO Limits.

The 2014 ES concluded that there would be no significant effects in relation to these assets following mitigation.

4.2 Effects as a Result of the Works

There are no additional significant operational, construction or decommissioning effects on non-designated or designated heritage assets situated within the Study Area outside the construction footprint of the Works. The
potential effects relating to the 2015 DCO Limits are the same as for the areas within the Works. These effects are temporary and minor adverse, and comprise the visual effect on the setting of designated heritage assets during construction on the following assets:

- Lackenby: Grade II* Old Hall farmhouse (1139659), grade II stable range (1159438) and byre barn (1329623);
- Kirkleatham Conservation Area;
- Yearby Conservation Area;
- Ryehills farmhouse (1139618), barn (1329632) and garden wall (1310671) all Grade II listed; and
- Turner’s Arms Farmhouse (1159818) Grade II listed.

As there are no known new non-designated heritage assets within the Works, the effect does not need to be considered further.

The Works have the potential to contain archaeological assets relating to historic landscape features and as yet unidentified archaeological remains. These types of assets were also considered for the 2015 DCO, and the same potential effects therefore apply to the Works. The effects, resulting from the potential removal though construction of the archaeological assets, remain minor adverse following mitigation.

Therefore, there are no new or materially different likely significant effects considered to arise as a result of the Works.

5 Mitigation and Enhancement

5.1 Summary of 2014 ES Mitigation

The 2014 ES proposed an archaeological mitigation strategy to be undertaken as a requirement of the 2015 DCO. This was based on, where an archaeological resource would be removed, preserving the resource by record. This comprised a systematic programme of archaeological investigation comprising one or all of the following stages to the relevant parts of the 2015 DCO:

- Detailed desk-based research (where applicable);
- Trial trench evaluation;
- Detailed excavation, post-excavation assessment and analysis;
- Watching brief during specific construction activities, recording and reporting; and
- Deposition of archive.

The archaeological mitigation strategy was to be implemented in accordance with a Written Scheme of Investigation (WSI) agreed with the planning authority.

In addition, specific mitigation was proposed to protect a WWII gun emplacement (HER 3585) located within the construction corridor, comprising fencing off the asset from construction activities.
5.2 **Enhancement Measures as a Result of the Works**

Where there is potential for as yet unrecognised archaeological remains to be present, the archaeology mitigation strategy identified in Section 5.1 will also be applied to the Works and will be secured by planning condition. No new mitigation is proposed as a result of the Works however, the below updates will be required to ensure the Works are incorporated into mitigation measures proposed for the 2015 DCO.

The mitigation strategy will be revised for the Works so that it includes new geophysical survey. This will be conducted as the first stage of the mitigation strategy. This work will inform the design of the later stages of the mitigation works.

Areas of the Works have been selected for geophysical survey on the basis of their suitability. Areas where interpretable data cannot be collected due to size, land use, or proximity of modern disturbance have been excluded, as have areas where data has already been collected in relation to the 2014 ES. The areas, the basis of selection, and their suitability are listed in Table 5.1. The areas are shown on Figure 1, Annex A.

**Table 5.1: Areas for New Geophysical Survey**

<table>
<thead>
<tr>
<th>Planning Reference</th>
<th>Area</th>
<th>Grid Coordinates</th>
<th>Selection criteria</th>
<th>Selected (Yes/no)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 (A&amp;B2)</td>
<td>1</td>
<td>461878,521675</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>CC B</td>
<td>1</td>
<td>462126,521894</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>10C (2)</td>
<td>1</td>
<td>462122,521834</td>
<td>Roadside interference</td>
<td>No</td>
</tr>
<tr>
<td>CC C</td>
<td>1</td>
<td>461946,521856</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>10D</td>
<td></td>
<td>461829,521925</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>10E (2)</td>
<td>1</td>
<td>461087,521524</td>
<td>Data already collected; road verge and hedge prevent collection</td>
<td>No</td>
</tr>
<tr>
<td>CC D(2)</td>
<td>2</td>
<td>459925,521420</td>
<td>Area too small to collect meaningful data</td>
<td>No</td>
</tr>
<tr>
<td>CC D(3)</td>
<td>2</td>
<td>459900,521409</td>
<td>Area too small to collect meaningful data</td>
<td>No</td>
</tr>
<tr>
<td>6 (A&amp;B2)</td>
<td>3</td>
<td>458770,520904</td>
<td>Data already collected / cannot be collected (trees, road)</td>
<td>No</td>
</tr>
<tr>
<td>CC E</td>
<td>3</td>
<td>458567,520870</td>
<td>Data already collected</td>
<td>No</td>
</tr>
<tr>
<td>CC F</td>
<td>3</td>
<td>458426,520847</td>
<td>Data cannot be collected (modern disturbance/vegetation)</td>
<td>No</td>
</tr>
<tr>
<td>6 (A&amp;B2)</td>
<td>3</td>
<td>458118,520770</td>
<td>Roadside interference</td>
<td>No</td>
</tr>
<tr>
<td>CC G</td>
<td>3</td>
<td>457831,520675</td>
<td>Roadside interference</td>
<td>No</td>
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<tr>
<td>6 (A&amp;B2)</td>
<td>3</td>
<td>457783,520646</td>
<td>Roadside interference</td>
<td>No</td>
</tr>
<tr>
<td>CC H</td>
<td>4</td>
<td>457438,520306</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>8S (2)</td>
<td>4</td>
<td>457226,520312</td>
<td>Roadside interference</td>
<td>No</td>
</tr>
<tr>
<td>CC I</td>
<td>4</td>
<td>456947,520315</td>
<td>Arable</td>
<td>Yes</td>
</tr>
<tr>
<td>10J(2)</td>
<td>5</td>
<td>456947,520140</td>
<td>Hedge /path interference</td>
<td>No</td>
</tr>
<tr>
<td>10J(3)</td>
<td>5</td>
<td>456766,519907</td>
<td>Hedge /path interference</td>
<td>No</td>
</tr>
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<td>10J(4)</td>
<td>5</td>
<td>456634,519816</td>
<td>Hedge /path interference</td>
<td>No</td>
</tr>
<tr>
<td>8 (A&amp;B2)</td>
<td>5</td>
<td>456375,519611</td>
<td>Data already collected</td>
<td>No</td>
</tr>
<tr>
<td>8B (2)</td>
<td>5</td>
<td>456358,519620</td>
<td>Arable (partially collected)</td>
<td>Yes</td>
</tr>
</tbody>
</table>
6 Cumulative Effects

6.1 Summary of 2014 ES Cumulative Projects

The 2014 ES concluded that there were no significant effects arising from the cumulative effect of other developments.

6.2 Cumulative Effects as a Result of the Works

No new or materially different cumulative effects have been identified as a result of the Works. There are no significant changes arising from the Works to the receptors and no significant construction projects that require additional assessment as a result of the Works.

Any as yet unknown archaeological deposits within the construction footprint of the Works that may be affected are isolated from other schemes, such that the effect cannot be cumulative.

There are no new or materially different likely significant cumulative effects considered to arise as a result of the Works.

7 Summary and Statement of Change/No Change

This assessment demonstrates that the Works give rise to no new or materially different environmental effects than those identified within the 2014 ES and will not give rise to any new likely significant effects as a result of the Works.

The conclusions of the 2014 ES would not be changed as a result of the Works. The changes in effects resulting from the Works is summarised in Table 7.1.

Table 7.1: Summary of Change in Effects on Historic Environment Receptors

<table>
<thead>
<tr>
<th>Receptor</th>
<th>2014 ES Effect Significance</th>
<th>Effects a Result of the Works</th>
<th>Change/No Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eston Nab Hillfort</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Eston Hills Historic Landscape</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Historic Landscape (general)</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Lackenby Old Hall farmhouse, stables, barn</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Kirkleatham Conservation Area</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Yearby Conservation Area</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Marske Conservation Area</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Ryehills farmhouse, barn, garden wall</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Fell Briggs Farm</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Receptor</td>
<td>2014 ES Effect Significance</td>
<td>Effects a Result of the Works</td>
<td>Change/No Change</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------</td>
<td>-------------------------------</td>
<td>------------------</td>
</tr>
<tr>
<td>Turner’s Arms Farmhouse</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Brickearth extraction pit</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Site of 19th century dovecote</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>World War II pillbox</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>World War II gun emplacement</td>
<td>Neutral</td>
<td>None</td>
<td>No Change</td>
</tr>
<tr>
<td>Sites identified through geophysical survey</td>
<td>Minor</td>
<td>None</td>
<td>No Change</td>
</tr>
</tbody>
</table>
Figure 1: Archaeology
Dogger Bank C/ Sofia Onshore
Works Application