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Application Statement in Support of Proposed Installation of HVDC and HVAC Buried Cables - Wilton International



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# 1. Introduction

#### **1.1. Purpose of this document**

- 1.1.1. Dogger Bank Teesside A & B offshore wind farm was granted development consent (Dogger Bank Teesside A & B Order 2015) (hereafter referred to as "Made Order") on 5 August 2015 under the Planning Act 2008.
- 1.1.2. This Town and Country Planning application (TCPA), submitted under Town and Country Planning Act 1990 seeks permission for the installation of two buried sections of high voltage electrical cables and fibre-optic cables.
- 1.1.3. These two buried sections of high voltage electrical cables in effect realign two sections (Area 1 and Area 2) of two export cable systems (i.e. one export cable system per project) permitted under Made Order as they pass through Wilton International (Refer to **Figure 1**).
- 1.1.4. The purpose of this Application Statement is to detail the proposed works, document the material prepared in support of the application, review relevant planning policy and identify, if consented, key requirements of the Made DCO pertinent to the proposed works.



#### Figure 1 – Dogger Bank Teesside A & B realigned export cable corridor



## 1.2. Dogger Bank Teesside A & B Order 2015

- 1.2.1. The Made Order consented two offshore wind farms Dogger Bank Teesside A and Dogger Bank Teesside B and secured the powers to construct, operate and decommission two offshore wind turbine electricity generating stations, and for their associated development comprising offshore and onshore export cables, onshore grid connections, electrical substations and associated apparatus.
- 1.2.2. Onshore, works permitted under the Made Order includes:-
  - the cable landfall and transition joint bays located on land located between Redcar and Marsh-by-the-Sea;
  - underground high voltage direct current (HVDC) export cable system carrying power (for approximately 7km) from the landfall to the onshore HVDC converter stations;
  - onshore converter stations with associated roads, fencing, landscaping and drainage;
  - underground high voltage alternating current (HVAC) export cable system carrying power (for approximately 2km) from the onshore HVDC converter stations to the existing National Grid substation at Lackenby;
  - connection bays within the existing National Grid substation (containing switchgear and electrical equipment for connection of the export cable system to the transmission network);
  - temporary works and laydown areas;
  - landscaping; and
  - rights of access from the existing highway to the cable easement and converter stations and to the substation for construction, maintenance and repair.

#### 1.3. Applicant

- 1.3.1. The applicant is Forewind Ltd. Forewind is an incorporated joint venture between SSE, RWE, Statkraft and Statoil, established to develop the Dogger Bank projects and secure the necessary planning consents.
- 1.3.2. Each parent company holds an equal interest and is equally responsible for the development costs. It is noted that Forewind is not the suitable enterprise who will lead the works if permitted, for this two special purpose companies (Bizcos) have been created: Doggerbank Project 2 Bizco Limited (Project 2 Bizco) and Doggerbank Project 3 Bizco Limited (Project 3 Bizco) and together hereafter referred to as "Bizcos".

#### **1.4.** Application Documentation

1.4.1. This Application Statement provides background and supporting information necessary to demonstrate that the proposed works should be supported by Redcar & Cleveland Borough Council (RCBC) and consent should be awarded. In doing so it draws on the suite of material submitted in support of consenting



of Made Order. Where explicitly pertinent to this application, material submitted with the Made Order has been submitted in duplicate with this application (for example Outline Code of Construction Practice).

- 1.4.2. This application is also supported by:
  - Application form;
  - Plans of the development forming the basis of this application;
  - Application Statement (this document) and supporting appendices;
  - Environmental Report; and
  - Engineering Technical Statement.
- 1.4.3. An Environmental Statement (ES) was prepared pursuant to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 to support that application. The ES can be viewed on the Planning Inspectorate website:

http://infrastructure.planninginspectorate.gov.uk/projects/yorkshire-and-thehumber/dogger-bank-teessideab/2inessetion\_does2stage\_app2filter\_Environmental.Statement

ab/?ipcsection=docs&stage=app&filter=Environmental+Statement.

1.4.4. The **Environmental Report** provides environmental information necessary to demonstrate that the proposed works do not result in any changes to the predicted environmental effects identified within the original application or give rise to any new likely significant effects.

#### 1.5. Consultation

- 1.5.1. Forewind has actively engaged and consulted on the wider proposed works permitted under the Made Order with the local community and interested parties (including RCBC). These consultation activities are not duplicated in the attached application but can be drawn on as required.
- 1.5.2. As the proposed works are limited in scope (being wholly confined to Wilton International) and are landowner led Forewind has limited pre-application consultation to the landowner (Sembcorp) and key interested party SABIC.
- 1.5.3. For wider community consultation Forewind has applied a pragmatic / proportionate approach including an article in latest Dogger Bank News (issued mid-October) (Appendix A). Dogger Bank News is circulated to all the properties within a catchment of the onshore export cable route.
- 1.5.4. Once the TCPA application has been submitted, Forewind will advise local stakeholders that an application has been made.

#### **1.6.** Application Validation Checklist

1.6.1. Forewind recognises that this application is relatively unique in that it is seeking to establish the principle of the works now, by way of securing outline TCPA following the proposed realigned route, but relies upon the Made Order for the remainder of works. Forewind also recognises that the scope of this application is atypical in that many of the design details will not be known for some period of time – i.e. more detailed architectural drawings are not available at this time, but



rather relies upon defined parameters within which the cables must be laid. Forewind has reviewed the Application Validation Checklist. **Table 1** provides commentary on the material submitted in support of the application.

#### Table 1 Application Validation Checklist

Document	Commentary	
Application form completed and signed	Uploaded through planning portal.	
Completion of the relevant ownership certificate / Agricultural Land Declaration	Completed through planning portal.	
Planning fee	Payment pending.	
Plans	Location plan and site plan - uploaded through planning portal. Other supporting plans include: - Teesside Onshore Cable Route Area 1 and Teesside Onshore Cable Route Area 2.	
Design and Access Statement	The proposed works are below ground level and do not require access (expect for infrequent maintenance undertaken by specialist contractors). The works do not therefore lend themselves to a design and access statement. Instead the principles of the proposed works are detailed in this <b>Application Statement</b> . The design of the works, including method of construction is detailed in <b>Appendix B</b> of this Application Statement ' <b>Cable Details and Grid</b>	
	Connection Statement' and construction managed in accordance with 'Outline Code of Construction Practice' provided at Appendix C (uploaded through planning portal).	

#### **Local Validation Checklist**

Air quality assessment	Impact on air quality is considered in the <b>Environmental</b> <b>Report</b> (uploaded through planning portal) to this application. The <b>Environmental Report</b> confirms that no additional likely significant effects identified and draws on supporting material from Made DCO including i) ES Chapter 30 Air Quality Assessment; ii) Appendix 30A Construction Phase Dust Assessment; and iii) Appendix 30B Air Quality Modelling Technical Appendix. This material is not duplicated in the attached application but can be drawn on as required.
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# FOREWIND

Document	Commentary
Biodiversity survey and report	Consideration of the existing biodiversity interest and possible impacts is considered in the <b>Environmental</b> <b>Report</b> attached to this application. The Environmental Report confirms that the development does not impact on areas designated for the biodiversity interest or affects any protected species. The Environmental Report draws on supporting material from Made DCO, including the comprehensive Environmental Statement. The Environmental Statement is not duplicated in the attached application but can be drawn on as required.
Drainage strategy	Consideration of flooding and drainage is considered in the <b>Environmental Report</b> attached to this application.
Environmental Impact Assessment (EIA)	Environmental impacts are considered in the <b>Environmental Report</b> attached to this application. The Environmental Report draws on the EIA prepared in support of Made DCO.
Flood risk assessment	Consideration of flooding and drainage is considered in the <b>Environmental Report</b> attached to this application. A full flood risk assessment (FRA) was produced as part of the Made DCO. The FRA is not duplicated in the attached application but can be drawn on as required.
Heritage Statement	Consideration of any impacts on terrestrial archaeology has been considered as part of the <b>Environmental Report</b> attached to this application. The <b>Environmental Report</b> confirms that there are no designated or significant heritage assets within this area or in proximity and no likely significant effects are identified.
Noise Impact Assessment	The impact of noise is considered in the <b>Environmental</b> <b>Report</b> attached to this application. The Environmental Report confirms that no noise sensitive properties (residential areas) are located in proximity to this area, concluding that there are no changes in the assessment findings presented in the ES from the proposed route realignment.
Photographs and Photomontages	A selection of existing photographs is detailed in the <b>Environmental Report</b> . No photomontages have been prepared due to the below ground nature of the proposed works.
Planning Statement	The principles of the proposed works and compliance against local planning policy are detailed in this <b>Application Statement</b> .
Statement of Community Involvement	Forewind has actively engaged and consulted on the wider proposed works permitted under the Made Order with the local community, interested parties, state and volunteer



Document	Commentary
	agencies and RCBC. These consultation activities are not duplicated in the attached application but can be drawn on as required.
	As the proposed works are limited in scope (being wholly confined to Wilton International) and are landowner led - Forewind has limited active pre-application consultation to the landowner (SembCorp) and key interested party SABIC.
	For wider community consultation Forewind has applied a pragmatic / proportionate approach - including an article in latest <b>Dogger Bank News</b> (issued mid-October) (refer to <b>Appendix A</b> ). Dogger Bank News is circulated to all the properties within a catchment of the cable route.
	Once the TCPA application has been submitted, Forewind will advise local stakeholders that an application has been made.
Structural survey	The design of the works, including method of construction is detailed in Appendix B of this Application Statement <b>'Cable Details and Grid Connection Statement'</b> .
	To ensure that the proposed works can cross the existing drain, Forewind commissioned Atkins to prepare a <b>technical note on drain crossing,</b> attached to this application.
	To ensure that the works are designed to an appropriate standard, Forewind recommends that a condition of consent is added (consistent with the Made DCO) to the effect that no stage of the onshore works permitted under this TCPA application (or Made DCO) may commence until details of their layout, scale, levels and external appearance have been submitted to and approved by RCBC.
	Consideration of the traffic and transport impacts is considered in the <b>Environmental Report</b> attached to this application.
Transport assessment / Transport Statement / Travel Plan	The Environmental Report confirms that the proposed amendment will result in an increase of 500 HGV movements during construction compared to the consented route alignment.
	The changes relate to the increased length of open cut trench, the associated additional length of haul road and the generation of additional waste soils. The realigned route will also require temporary part-closure of the access to the Wilton International visitor centre.



Document	Commentary
	Further, consistent with the Made Order, Forewind recommends that suitable conditions of consent are attached requiring a construction traffic management plan ("CTMP") and a construction travel plan ("CTP"), to be used for the management of construction traffic.
Tree Survey	The impact on established trees is considered in the <b>Environmental Report</b> attached to this application. The Environmental Report confirms that no tree will be
	removed as part of the works, however, the proximity of the works has the potential to damage the root mass of the trees if appropriate construction measure are not implemented.



## 2. Proposed Works

#### 2.1. Background

- 2.1.1. It has been identified through consultation with Sembcorp, freeholder of Wilton International, that they have concerns that the proposed installation of export cable system as consented under the Made Order could sterilise employment generating land within the Wilton International.
- 2.1.2. Following determination of the Made Order in August 2015 Forewind is taking this opportunity to secure consent for the realignment of two sections of the export cables, referred to in this application as Area 1 and Area 2, alleviating concern that the proposed export cables will unduly sterilise land.
- 2.1.3. These proposed amendments to the export cable corridor fall outside of the scope of Planning Act 2008 and as such Forewind can secure consent for these works separately through an application under the Town and Country Planning Act 1990.
- 2.1.4. Securing consent now for the realigned works is important as it secures the principle that the export cables can be realigned and mitigates the risk that employment generating land within the Wilton International is not unduly sterilised.

#### 2.2. **Proposed Works**

2.2.1. This application seeks permission for:

"The installation of two buried sections of high voltage electrical cables and fibre-optic cable associated with Dogger Bank Teesside A & B Offshore Wind Farms"

- 2.2.2. All the works are located within Wilton International owned by Sembcorp Utilities (UK) Ltd. Wilton International is predominantly industrial in character with large areas of hard standing, buildings (including offices, warehouses and industrial units) and areas of bare ground ready for future development, or having recently been cleared of previous land use. To the south of the area there are several arable fields which form part of the Wilton International but are yet to be developed for industrial uses. The area has a number of buried services connected to the activities of the Wilton International.
- 2.2.3. The extent of the two buried sections Area 1 and Area 2 are detailed further below. The area for each area is as follows:
  - Area 1: 24,423 sq. metres
  - Area 2: 19,891 sq. metres
  - Total: 44,314 sq. metres



#### Area 1 - Description of proposed changes (HVAC)

- 2.2.4. The landowner, Sembcorp, has expressed a desire that the High Voltage Alternating Current (HVAC) section, where possible, is realigned to run along the southern boundary of the existing field with the purpose of minimising the land take of the export cable corridors on development sites within Wilton International.
- 2.2.5. The realigned works continue to be wholly located within land controlled by Sembcorp and continues to avoid any sites of environmental value.
- 2.2.6. **Figure 3** below identifies the proposed route amendment (pink) relative to the consented order limits (black hatched) for Area 1 the proposed HVAC buried cable route amendment.





#### Figure 3 - Area 1 Proposed HVAC buried cable route amendment



- 2.2.7. The proposed realignment results in an approximately 700m length of the HVAC cable route being moved approximately 10m southeast of the original alignment. The realignment remains wholly within the same arable field and results in the cable route being closer to the edge of that field (and closer to the existing tree lined footpath in this location). Relocating the route in this way frees up approximately 4,000m2 of arable land that would otherwise become isolated during the construction.
- 2.2.8. The key construction parameters are given below in **Table 3**, which includes a comparison of the equivalent values from the consented route.

# Table 3Key differences between construction parameters associated with the HVDCroute amendment (comparing consented route and proposed route amendment)

Construction parameter	Consented route	Proposed amendment
Assumed length of each cable system to be trenched (one project)	700m	No change
Approximate length of cable route trenching (two projects)	1,400m	No change
Maximum cable corridor width (one project)	18m	No change
Maximum cable corridor width (two projects)	36m	No change
Approximate quantity of cable trench spoil to be disposed of (two projects)	1,100m <sup>3</sup>	No change
Proximity to existing tree lined permissive pathway	13m	Зm

2.2.9. The overall construction methodology, construction techniques and construction timings of the proposed amendment remain the same as those detailed within Chapter 5 of the originally submitted ES and are summarised below.

#### Area 2 - Description of proposed changes (HVDC)

- 2.2.10. The landowner, Sembcorp, has expressed a desire that the HVDC section, where possible, is realigned to run along, or to the south of the existing internal access road to minimise the land take of the export cable corridors on development sites within Wilton International.
- 2.2.11. The realigned works continue to be wholly located within land owned and controlled by Sembcorp and continues to avoid any sites of environmental value.



2.2.12. **Figure 2** below identifies the proposed route amendment (pink) relative to the consented order limits (black hatched) for Area 2 - the proposed HVDC buried cable route amendment.





#### Figure 2 - Area 2 Proposed HVDC buried cable route amendment



- 2.2.13. The proposed realignment results in an approximately 500m length of the HVDC cable route being moved approximately 75m south of the route consented under the Made DCO.
- 2.2.14. The cable will now be located to the south of the main access into the Wilton International (Southway) rather to the north of Southway. This will result in the cable route crossing the existing drain that runs adjacent to Southway, approximately 420m further to the west than the consented crossing location.
- 2.2.15. To ensure that the proposed works can suitably cross the existing drain, Forewind commissioned Atkins to prepare a technical note on drain crossing.
- 2.2.16. The key construction parameters for Area 1 are given below in **Table 2**, which includes a comparison of the equivalent values from the consented route.

Table 2Key differences between construction parameters associated with the HVDCroute amendment (comparing consented route and proposed route amendment)

Construction parameter	Consented route (DCO)	Proposed amendment
Assumed length of each cable system to be trenched (one project)	420m <sup>*</sup>	600m**
Approximate length of cable route trenching (two projects)	840m	1,200m
Maximum cable corridor width (one project)	18m	18m
Maximum cable corridor width (two projects)	36m	36m
Approximate quantity of cable trench spoil to be disposed of (two projects)	630m <sup>3</sup>	950m <sup>3</sup>
Approximate total HGV movements (two projects)	1,300	1,800
Proposed technique for crossing the drain in this location	HDD	HDD, open trench, culvert or bridge

\* Value lower than 500m corridor length due to presence of HDD at the eastern end of the original consented route

\*\* Value larger than 500m corridor length as a result of worst case routing of cabling within the corridor

2.2.17. Beyond the changes outlined in **Table 2**, the construction methodology for HDD and open cut trenching, and the construction timings of the proposed amendment remain the same as those detailed within Chapter 5 of the originally submitted ES and are not repeated here.



## 2.3. Associated development

#### Electrical cable system and associated fibre-optic cable

- 2.3.1. Generally, each cable system will be installed in open cut trenches either directly buried or in ducts to a depth of approximately 1.2m. The trenches will be backfilled with material of adequate thermal resistivity (native soil or stabilised material such as CBS (Cement Bound Sand), to dissipate the heat generated in the cables. For parts of the cable route sections, the cables will be installed through a trenchless installation method such as HDD (Horizontal Directional Drilling (HDD), which is the standard method used for obstacle crossing.
- 2.3.2. At this stage of the design development process, the final / actual size of the cables is not known. For the purpose of this application, Forewind has estimated the expected cable dimensions based on information currently available and provided maximum parameters. Prior to the commencement of works the cables proposed to be used will be subject to detailed electrical and thermal design analysis.

#### **HVDC Cables**

- 2.3.3. The HVDC cables will likely be single core, unarmoured, aluminium or copper conductor cables, suitable for underground installation. The nominal voltage is currently envisaged to be ±320kV, however higher voltages up to ±550kV may be used, following cable technology developments.
- 2.3.4. This application seeks consent for two HVDC export cable systems (i.e. one cable system per project) (refer to **Figure 4**). Each cable system comprises one x 1,000MW HVDC circuit, comprising two x 500MW HVDC single core cables (i.e. four HVAC single core cables across the application). Each single core cable:
  - ±320 (±550kV maximum) nominal voltage (kV);
  - 17 cable linear weight (kg/m); and
  - 120 overall external cable diameter (mm).





Figure 4 - Cutaway view of a typical single core HVDC cable.

#### **HVAC Cables**

- 2.3.5. The HVAC cables will likely be XLPE insulated, single core, unarmoured, aluminium or copper conductor cables suitable for underground installation. The cable nominal voltage will correspond to the connection point nominal voltage.
- 2.3.6. In total, the application seeks consent for two HVAC export cable systems (i.e. one cable system per project) (Refer to **Figure 5**). Each cable system comprises one x 1,000MW HVAC three-phase circuit, each comprising three single core cables (i.e. six single core HVAC cables across the application). Each single core cable:
  - 400kV nominal voltage
  - 40 cable linear weight (kg/m)
  - 150 overall external cable diameter (mm)

#### DOGGER BANK TEESSIDE A & B





Figure 5 - Cutaway view of a typical single core HVAC cable.

Courtesy of Nexans

#### **Cable Installation**

#### **Open Cut Trench Cable Installation**

- 2.3.7. The majority of the HVDC and all of the HVDC realigned sections will be installed by way of open cut trenching.
- 2.3.8. Each cable system is laid directly into the ground via an open trench or by way of ducts. To prevent damage, cables will be installed at approximately 1.2m depth, although installation depths may vary along the route. Actual target cable burial depth will be determined during detailed design. Typical direct burial cable trench dimensions in agricultural land and roads are detailed in **Table 4**.



Construction parameter	HVAC	HVDC
Indicative overall trench depth (m)	1.5	1.2
Indicative HVDC trench width (at base of trench) (m)	1.0	1.0
Indicative HVAC trench width (at base of trench) (m)	1.5	-
Typical minimum cable installation depth (arable land) (m)	1.2	0.9
Indicative warning tape depth (m)	0.8 to 0.9	0.5 to 0.6
Indicative thickness of trench top soil backfilled material (m)	0.2	
Indicative thickness of finished road surface (m)	-	0.35

Table 4 - Typical direct burial cable trench dimensions in agricultural land and roads:

# 2.3.9. A typical trench cross sections for burial in agricultural land and in roads are is shown in **Figures 6** and **7**.

Figure 6 - Indicative cross section of a direct burial trench in agricultural land





Figure 7 - Indicative cross section of a cable buried direct in road (applies to HVDC section only)



#### **Ducted Cable Installation**

2.3.10. For sections of the cable route, such crossing the Wilton International access road (HVDC section only) and parallel drain, the cables may be installed using ducts. Ducts are always used for HDD installation, and commonly used when crossing culverts.

#### **Horizontal Directional Drilling**

2.3.11. Horizontal Directional Drilling (HDD) may be used along the HVDC section. HDD is a steerable trenchless method of installing underground pipes, ducts and cables in a shallow arc along a prescribed bore path by using a surface launched drilling rig. HDD is a well-established method for cable installation where the more conventional trench installation is either unfeasible, or undesirable for environmental reasons.

#### **Temporary construction compounds**

2.3.12. The proposed works will rely on the temporary construction compounds for the location of offices, storage areas, welfare facilities and lay-down areas permitted by the Made Order. For works within Wilton International, contractors will make use of the temporary construction compounds located adjacent to the proposed substation converter locations.

#### Haul road construction & topsoil strip

- 2.3.13. Parts of the HVDC and the whole of the HVAC section provide for the installation of a haul road. It is assumed that the haul road construction will require imported material. The exact requirements for the haul road will be related to a number of factors including: subgrade materials, nature and frequency of construction traffic and weather conditions.
- 2.3.14. The haul road will typically comprise imported granular material with geogrid reinforcement layers and geotextile separation layers, as required. Where



possible, the materials for the haul road will be recycled and/or sourced from local providers.

2.3.15. For the purposes of this application, it is assumed that the haul road will be indicatively 350mm thick, although this figure is provided as guide only and may change depending on the local conditions. It is assumed that the imported material will typically be brought to site in eight-wheeled tipper wagons, with the material deposited at the required locations. Once deposited, the material will be spread using an excavator and bulldozer, and compacted using a roller.

#### Cable delivery, storage and installation

- 2.3.16. Cable drums will be initially delivered to the primary or intermediate compound locations (authorised under the made Order) on a HGV low loader. From the laydown areas Individual cable drums will be taken to the relevant joint bay. A cable winch will be set up at the following joint bay position.
- 2.3.17. Joint bays will be located along the route at intervals compatible with the cable section length. The joint bays are expected to be approximately 10m long x 4m wide and will require temporary earthwork support, in a similar fashion to the trenches. The joint bays will require a concrete base with drainage canals and will need to be kept free of water and debris during the cable installation works. The exact locations of each joint bay on the cable route are not known at this time, but will be identified as part of the detailed design process.
- 2.3.18. On completion of the cable installation and jointing, the joint pits and trenches will be reinstated using the excavated soil. Although future access to the joint bays may be needed for repairs, it is not envisaged that regular maintenance will be required and hence the joint pits will not require any inspection chambers or access covers.

#### **Demobilisation from site**

- 2.3.19. On completion of the works, it will be necessary for the contractor to reinstate the ground above the installed cable to an acceptable standard. Demobilisation works include the removal and disposal of construction haul road, temporary crossing facilities and temporary drain/watercourse crossings, appropriate disposal of waste materials and reinstatement of drainage systems (where existing), reinstatement of stored topsoil, re-seeding of topsoil (where necessary) and reinstatement of hedgerows and vegetation removed to accommodate the work and removal of boundary fencing.
- 2.3.20. Once all the above activities are completed it is expected that the vegetation will return after a reasonable time to a state as prior to the construction activities.

#### **Services and Utilities**

2.3.21. The proposed works do not draw on the service of any utilities.

#### **Supporting Information**

2.3.22. Further supporting information detailing the proposed installation of the export cable system is detailed in "Cable Details and Grid Connection Statement", originally submitted in support of the Dogger Bank Teesside A & B Offshore Wind Farm application (document reference number 7.2).



#### Employment

2.3.23. For the purposes of this application – Forewind has stated on the application form that the number of full time or part time employees the works will create is zero. The wider employment and investment forecast to be generated by Dogger Bank Teesside A & B is documented in ES Chapter 22 Socio-Economics and supporting Dogger Bank Economics Benefits Study.



# 3. Planning Statement

#### 3.1. Introduction

- 3.1.1. This section brings together the necessary information to appraise the application proposal against relevant planning policy and other material considerations.
- 3.1.2. Planning applications are required to be determined in accordance with the Statutory Development Plan, unless material considerations indicate otherwise.
- 3.1.3. The application site is wholly located within RCBC and should therefore be determined in accordance with the adopted Core Strategy Development Plan Document (CSDPD, July 2007) and Development Policies DPD (DPDPD, July 2007). In addition, the guidance in the National Planning Policy Framework ('NPPF') (CLG; March 2012); and Planning Practice Guidance ('PBG') (CLG; March 2014) is a relevant material consideration.
- 3.1.4. The main conclusions in appraising the proposed realigned buried high voltage export cables are the proposed realignment reduces the volume of land which could otherwise be utilised by employment generating development and is supported by Sembcorp, Wilton International freeholders.

#### 3.2. The NPPF

3.2.1. All of the relevant RCBC DPDs pre-date the publication of the NPPF, with these being produced over 3 years prior to the NPPF's production. It is the case, therefore, that in preparing these DPDs, reference could have been made to policy guidance that has since been revoked or updated. Paragraph 215 of the NPPF explains that:

"....due weight should be given to relevant policies in existing plans according to their degree of consistency with this framework – the closer the policies in the plan to the policies in the Framework, the greater the weight that may be given."

3.2.2. Due to the nature of the proposed works however, a clear conflict between the NPPF and RCBC DPDs has not been identified.

#### 3.3. RCBC Adopted Local Planning Policy

- 3.3.1. RCBC's Adopted CSDPD provides the development framework for the Borough over the plan period to 2021. At the same time, the Council adopted its DPDPD which provides detailed development control policies that are intended to deliver the overarching policy objectives of the Core Strategy. These documents provide a suite of planning policies that are relevant to the assessment of the proposals.
- 3.3.2. In promoting Dogger Bank Teesside A & B, Forewind undertook a comprehensive assessment of the wider works permitted under the Made Order against adopted local planning policy. Detailed further in Planning and Planning



and Design Statement, Application reference: 8.1. Further, RCBC have been very supportive of Dogger Bank Teesside A & B.

- 3.3.3. The Local Impact Report, issued through the examination by RCBC, recommends that *"…Council raises no objection to the proposal"*. Paragraph 6.0
- 3.3.4. In reviewing the proposed onshore works (as a whole), against the Redcar and Cleveland Local Development Framework 2007, the Local Impact Report provided commentary on the extent of compliance against key policies. In considering those impacts relevant to realignment of two sections of the export cable system, key observations from the Local Impact Report are summarised in **Table 5**.

# **Table 5** – Extracts from RCBC's Local Impact Report issued as part of RCBC assessment of Dogger Bank Teesside A & B Offshore Wind Farm

Construction parameter	HVAC
Biodiversity and ecology	"The Local Authority consider that, subject to the acceptance of the scheme from the statutory consultees, the implementation of the mitigation proposed within the Environmental Statement and appropriate conditions as set out in the Draft DCO, no concerns are raised with regard to biodiversity and ecology matters". Paragraph 9.17.
Highways	<ul> <li>"it is accepted that there are no concerns with the proposed development and its impact on the highway network"</li> <li>Paragraph 9.19.</li> <li>"A Construction Traffic Management Plan (CTMP) and Construction Travel Plan (CTP) shall be submitted for each stage including detailed abnormal loads, to ensure that construction traffic is properly managed".</li> <li>Paragraph 9.22.</li> </ul>
Residential Amenity	"The number of residential properties affected by the construction activities is considered to have been minimised due to the proposed route of the cable The construction activities will be suitably controlled by conditions relating to construction hours and working practices". Paragraph 9.24. "The issue of air quality also needs to be considered with regard to the generation of dust emissions. These are considered to be appropriately addresses through the relevant conditions relating to a dust management plan". Paragraph 9.26.



Construction parameter	HVAC
	"The Council's Environmental Protection Section have raised no objection to the proposal with regard to the impact on residential amenity subject to the implementation and compliance with the relevant controls and conditions set out within the Consent Order". Paragraph 9.27.
Drainage and flood risk	" During the pre-application discussions it was agreed that Forewind will need to seek the consent of the Council for the crossing of any watercourse along the cable route. The proposed route of the cable is situated within Flood Risk Zone 1 and therefore the risk of development from flooding is low" Paragraph 9.29 and 9.30.
Socio Economic	"The Tees Valley has been supporting the offshore wind industry for a number of years through various services and component manufacture. Established industries and suppliers are present in, or close to, the North East and are well positioned to support the construction of Dogger Bank Teesside A & B" Paragraph 9.33 "The Tees Valley is an excellent low cost location for supplies looking to set up a manufacturing base, or duel source components when setting up factories across Europe". Paragraph 9.34
Conditions	"The conditions that form part of the Consent Order have been considered as set out in Schedule 1 Part 3 of the Draft DCO. It is considered that the working of the conditions is appropriate". Paragraph 9.58
Conclusions	The Local Impact Report concludes:- "The proposed development is considered to make significant contribution to the provision of energy from renewable sources. The onshore works relating to the installation of the cable are considered to be mostly temporary in nature or buried below ground Suitable controls are considered to be in place through the conditions attached to the Development Consent order and these will ensure that any final details to be agreed are appropriate and delivered accordingly". Paragraphs 10.1 and 10.2.

3.3.5. The land designations applicable to the proposed works, supported by an extract of the Local Plan Proposal Map are shown in **Figure 8** and documented in **Table 6**.

#### DOGGER BANK TEESSIDE A & B





#### Figure 8 – Extract of the Local Plan Proposal Map

#### Table 6 – Land Use Designations

Designation (Extract)	Compliance Area 1
CS10_Steel, Chemical and Port Related Industries The continued development and expansion of the	Designation applies to the whole of works proposed in Area 1 (HVAC) and Area 2 (HVDC). The installation of service infrastructure through
<ul><li>chemical, steel and port industries will be supported.</li><li>A total of 230 hectares of land will be safeguarded for chemical and steel manufacturing industries in line with the RSS:</li><li>a) At Wilton International for chemical related</li></ul>	Wilton International is well established, with a complex network of pipelines and cables already installed across Wilton International. By aligning the export cable to the edge of vacant employment plots the easements associated with the export cable systems will minimise extent to which it may sterilise or limit development over land which could otherwise come forward for employment generating uses. The proposed works are therefore considered appropriate in a local context and consistent with the wider objectives of the policy CS10 – i.e. to support the development of chemical related Industries.
activities;	
	Works considered compliant with policy.
CS22_Protecting and Enhancing the Boroughs Landscape Tees Forest	Designation partially extends across part of the works proposed in Area 1 (HVAC).
The overall approach will be to protect and enhance the Borough's landscape based on the character areas identified through the Landscape Character	All the HVAC works proposed will be installed below ground level – supporting the overall approach to protect and enhance the Borough's landscape.



Designation (Extract)	Compliance Area 1
Assessment. Priority will be given to the protection and enhancement of the landscape character and natural beauty of the North Yorkshire and Cleveland Heritage Coast. Development will not be allowed if this would lead to the loss of features important to the character of the landscape unless the need for the development outweighs the landscape considerations. Where development is justified, proposals will include measures to enhance, restore or create the special features of the landscape. In such circumstances, priority will be given to the creation of habitats to support local and regional biodiversity targets and the planting of new hedgerows, trees and woodlands to support the Tees Forest Strategy will be encouraged.	The impact on established trees is considered in the Environmental Report attached to this application. The Environmental Report, whilst acknowledging that there is an increased risk of root damage, no trees are identified to be removed and overall no additional likely significant effect has been identified for this line of trees or protected species potentially associated with this line of trees. <b>Works considered compliant with policy.</b>
DP1_Development Limits Within development limits, development will generally be acceptable where it accords with site allocations and designations in the Local Development Framework.	<ul><li>Area 1 (HVAC): Designation applies</li><li>Area 2 (HVDC): Designation applies</li><li>The proposed works are wholly located within the Development Limits.</li></ul>
Development beyond development limits	Works considered compliant with policy.

### 3.4. Emerging Policy

- 3.4.1. In accordance with paragraph 216 of the NPPF, decision-takers may also give weight to relevant policies in emerging plans according to the stage of preparation, number of outstanding objections and consistency with the NPPF.
- 3.4.2. RCBC has commenced the preparation of the 'new Local Plan' which will, once adopted, set the spatial vision, objectives and strategy for the development of the area to 2029 and replace both the CSDPD and DPDPD.
- 3.4.3. The Publication Version was considered by RCBC in July 2014 but was not approved, as such; it carries limited weight in any decision.
- 3.4.4. On 24th July 2015 RCBC commenced consultation on the Local Plan, issuing a Scoping Report for consultation. The scoping report, which detailing the intent of Council does not document Council policy. Due to the nature of the proposed works however, a clear conflict between the NPPF and emerging policy has not been identified.



# 4. Key Conditions and Reserved Matters

#### 4.1. Key conditions of consent

- 4.1.1. To ensure that the TCPA application is consistent with the Made Order, Forewind proposes to apply all relevant requirements stipulated in the Made Order when undertaking works permitted under the TCPA application.
- 4.1.2. Forewind has undertaken a review of the Made DCO and carried forward those requirements and conditions pertinent to establishing the principle of the installation of the export cable systems sought in this TCPA application.

#### **Consent time limit**

- 4.1.3. Consistent with the Made Order, Forewind requests that in this instance, RCBC exercise their discretion under Section 92 of Town and Country Planning Act 1990 and provide for extended time limits.
- 4.1.4. The default time limit for outline applications with reserved matters is a limit of three years for submission of reserved matters, and a further two years for implementation following final approval of the last of the reserved matters.
- 4.1.5. Forewind requests that these default time limits are extended and amended to ensure that the works authorised under the TCPA must be delivered within the same time scales as the wider works authorised under the Made DCO. The Made Order limits activities as follows:-
  - Dogger Bank Teesside A must be commenced on or before 25th August 2022.
  - Dogger Bank Teesside B must be commenced on or before 25th August 2022.
  - The shared works must be commenced on or before 25th August 2022.
- 4.1.6. Prior to this consent time limit (i.e. prior to 25<sup>th</sup> August 2022), the operators must have secured a number of matters, including: details of the project stages, detailed design, construction management etc. (These matters are detailed further below). These items are in effect reserved matters.
- 4.1.7. Ensuring that the works authorised under the TCPA must be delivered within the same time scales as the wider works authorised under the Made DCO is key matter for the managed delivery of the projects. On a practical level, ensuring that the TCPA and Made Order align will help ensure that the works for each project are delivered as one. At a wider level, seven year consent duration facilitates a sustainable supply chain, maximises economic benefits for the UK and minimises pressure on central governments support regime.
- 4.1.8. In examining the need for a seven year consent time limit, the Examining Authority agreed with Forewind's position that a longer commencement period was justified on the grounds that:



- the size and technical complexity of the projects;
- limitations on supply chain capacity;
- limitations on the Contract for Difference mechanism;
- the likelihood that the two project Dogger Bank Teesside A and Dogger Bank Teesside B will be designed and built by different operators; and
- the time taken to secure capital for projects of this scale.
- 4.1.9. In recommending a seven year consent time limit, the Examining Authority Recommendation report noted:

"The Panel also concludes that, without a seven year commencement period, the undertakers will not have sufficient time to enable arrangements to be made for the commencement of the application proposal. In reaching this view, the Panel is conscious that, not only is offshore proposals of substantial scale justifying an extended commencement period..., but onshore proposals are also equivalent complex. Key in the Panel's mind here is the need to ensure delivery of the cable alignments within the Wilton Complex"

Paragraph 6.3.24, Examining Authority's Report of Findings and Conclusions and Recommendation

#### **Stages of development**

4.1.10. The onshore works permitted in the Made Order (i.e. works from landfall through the grid connection) will be undertaken in a number of stages. Consistent with the Made Order, to appropriately manage the phasing of works, Forewind commits that no works will commence until a written scheme setting out the phasing of construction of each stage of the onshore works has been submitted to and approved by RCBC.

#### **Detailed Design**

4.1.11. To ensure that the works are designed to an appropriate standard, consistent with the Made Order, no stage of the onshore works permitted under this TCPA application (or Made DCO) may commence until details of their layout, scale, levels and external appearance have been submitted to and approved by RCBC.

#### **Construction Management**

- 4.1.12. To manage the construction impacts of proposed works in terms of access, security, noise, vibration and drainage, the onshore works permitted in the Made Order are subject to the approval of a Code of Construction Practice (CoCP) prior to the commencement of works by RCBC.
- 4.1.13. Forewind holds the expectation that works permitted under the TCPA will be subject to the same principles established in the Outline CoCP issued as a certified documented to the Made Order and the requirements of the CoCP as to be approved by RCBC.
- 4.1.14. The CoCP must be approved by RCBC and as appropriate Highways England, following consultation with the relevant statutory nature conservation body(ies) and consider i) construction noise and vibration management ii) air quality



including dust management iii) sustainable waste management during construction iv) traffic management and materials storage on site v) water management (surface water and groundwater) vi) the mechanism for the public to communicate with the construction teams, including contact details vi) land use and agriculture, including the management, excavation and removal of soils, land drainage, land quality and biosecurity vii) a method statement for the crossing of watercourses viii) method statements for horizontal directional drilling activities in the Wilton International ix) plans for public and private access across the Order limits, including details of the temporary re-routing of public rights of way during the construction of the authorised development including the provision of signage and other information alerting the public to the construction works and any re-routing and x) management and mitigation of artificial light emissions.

#### **Construction environmental management plan**

4.1.15. Before the commencement of works, a construction environmental management plan ("CEMP") for that stage, drafted in accordance with the principles set out in the CoCP, must be submitted to and approved by the by RCBC. All remediation, construction and commissioning works must be undertaken in accordance with the CoCP and CEMP.

#### Fencing

4.1.16. Consistent with the Made Order no stage of the works may commence until written details of all proposed permanent and temporary fencing have been submitted to and approved RCBC. Including, securely fenced construction sites. All temporary fencing must be removed on completion of the relevant work.

#### **Highway accesses**

- 4.1.17. Consistent with the Made Order no stage of the works may commence until, for that stage and after consultation with the highway authority, been submitted to and approved by RCBC, written details of:
  - the siting, design, layout and any access management measures for any new permanent or temporary means of access to or from a public highway;
  - the routes and accesses for operational maintenance;
  - all highway accesses must be constructed, maintained and removed in accordance with the approved details (although it is noted that no new access points to the public highway are proposed under this TCPA application.

#### Surface and foul water drainage

- 4.1.18. Consistent with the Made Order no stage of the works may commence, following consultation with the relevant sewerage and drainage authorities and the Environment Agency, been submitted to and approved by RCBC, detailing:
  - written details of the surface and (if any) foul water drainage system (including means of pollution control);



- surface water drainage system works must restrict surface water discharge to no more than the greenfield run-off rate (1.62 litres per second) (in line with the recommendations of the flood risk assessment submitted with the DCO application.
- information about the design storm period and intensity, the method employed to delay and control the surface water discharged from the site (surface water drainage scheme), include a timetable for implementation (foul and surface water schemes) and provide a management and maintenance plan for the lifetime of the proposed schemes (foul and surface water management).

#### Archaeology

4.1.19. Consistent with the Made Order no stage of the works may commence until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of archaeological investigation that has been submitted to and approved by RCBC.

#### **Construction hours**

- 4.1.20. Consistent with the Made Order construction work for the onshore works and any construction-related traffic movements to or from the site of the relevant work must take place only between 7 a.m. and 7 p.m. on Monday to Saturday, with no activity on Sundays, public or bank holidays, except—
  - where continuous periods of operation are required, such as concrete pouring and drilling;
  - for the delivery of abnormal loads to the onshore works, which may cause congestion on the local road network;
  - where works are being carried out on the foreshore;
  - where works are required to be carried out in an emergency; or
  - as otherwise agreed by the relevant planning authority as required outside of these hours pursuant to details submitted and approved under any other Requirement.
- 4.1.21. All construction operations that are to be undertaken outside the hours referred to above must be agreed by RCBC in advance and must be carried out within the hours agreed by RCBC.

#### **Construction traffic routing and management plans**

- 4.1.22. Consistent with the Made Order no stage of the onshore works may commence until written details of a construction traffic management plan ("CTMP") and a construction travel plan ("CTP"), to be used for the management of construction traffic, has been submitted to and approved by RCBC and Highways England.
- 4.1.23. The CTMP and CTP must include details (including agreed routes) for abnormal indivisible loads ("AILs") that may be delivered by road (or confirmation that no AILs are required for construction), and the approved details must be adhered to at all times when AILs are transported to or from the authorised development by road.



4.1.24. Notices must be erected and maintained throughout the period of construction at construction site exits, in accordance with the CTMP, indicating to drivers the routes agreed by the relevant planning authority for traffic entering and leaving sites.

#### **Restoration of land used temporarily for construction**

4.1.25. Land must be reinstated to its former condition, or such condition as RCBC may approve, within 6 months of completion of the works, or such other period as the relevant planning authority may approve.



## 5. Conclusion

- 5.1.1. It has been identified through consultation with Sembcorp, freeholder of Wilton International, that they have concerns that the proposed installation of export cable system as consented under the Made Order could sterilise employment generating land within the Wilton International.
- 5.1.2. Following determination of the Made Order in August 2015 Forewind is taking this opportunity to secure consent for the realignment of two sections of the export cables, referred to in this application as Area 1 and Area 2, alleviating concern that the proposed export cables will unduly sterilise land. All the works will be installed below ground level and are located within Wilton International owned by Sembcorp Utilities (UK) Ltd.
- 5.1.3. Securing consent now for the realigned works is important as it secures the principle that the export cables can be realigned and mitigates the risk that employment generating land within the Wilton International is not unduly sterilised.
- 5.1.4. Forewind recognises that this application is relatively unique in that it is seeking to establish the principle of the works now, by way of securing outline TCPA following the proposed realigned route, but relies upon the Made Order for the remainder of works. Forewind also recognises that the scope of this application is atypical in that many of the design details will not be known for some period of time i.e. more detailed architectural drawings are not available at this time, but rather relies upon defined parameters within which the cables must be laid.
- 5.1.5. In assessing the impact of the proposed works, an environmental screening exercise has been undertaken against the baseline conditions identified within the ES submitted in support of the Made Order. Following further consideration of impacts the Environmental Report concludes that overall, no additional likely significant effect has been identified.
- 5.1.6. In reviewing the proposed works against the Redcar and Cleveland Local Development Framework 2007, Forewind is of the view that the proposed works are compliant with both local planning policy as a whole and compliant against the objectives of land designations applicable to the proposed works, namely i) CS10\_Steel, Chemical and Port Related Industries ii) CS22\_Protecting and Enhancing the Boroughs Landscape Tees Forest and iii) DP1\_Development Limits.
- 5.1.7. To ensure that the TCPA application is consistent with the Made Order, Forewind proposes to apply all relevant requirements stipulated in the Made Order when undertaking works permitted under the TCPA application. Applying these conditions will ensure that the works permitted under both the Made Order and TCPA can be delivered as one.
- 5.1.8. In conclusion, Forewind is of the view that Council should support the proposed works and approve the TCPA application.



# Appendix A – Dogger Bank News

Prepared by: Forewind (October 2015).



# Appendix B - Cable Details and Grid Connection Statement

Prepared by: Forewind (March 2014). Originally submitted in support of Dogger Bank Teesside A & B Offshore Wind Farm application (document reference number 7.2).



# Appendix C – Outline Code of Construction Practice (CoCP)

Prepared by: Forewind (January 2015). Originally submitted in support of Dogger Bank Teesside A & B Offshore Wind Farm application.