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Norfolk Vanguard Ltd and Norfolk Boreas Ltd.

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1 GENERAL PROVISIONS

This Employer's Requirements includes the project description, the scope of Works and general requirements. This Employer's Requirements shall be read in conjunction with the Conditions of Contract (including the Appendices) and all other Employer's Requirements (including the Annexes).

This Employer's Requirements acts as a bridging document between the other Employer's Requirements. The Employer's Requirements contained in other Employer's Requirements or elsewhere in the Contract are not repeated herein.

The Employer's Requirements comprise the following Volumes:

- Volume 0 Scope of Works and General Requirements;
- Volume 1 Programme;
- Volume 2 Documentation;
- Volume 3 Health, Safety, Security and Environment;
- Volume 4 Environment;
- Volume 5 Quality Management;
- Volume 6 Interfaces;
- Volume 7 Technical Requirements – Structural;
- Volume 8 Technical Requirements – Electrical;
- Volume 9 Technical Requirements – Mechanical;
- Volume 10 SCADA and Control Systems;
- Volume 11 Transport & Installation Logistics;
- Volume 13 Testing & Employer's Taking Over;
- Volume 14 Service / Operation & Maintenance;
- Volume 15 Basic Conditions;
- Volume 16 Risk.

Where reference is made within this document to a Volume or Annex, such reference shall be construed as a reference to a Volume or Annex of the Employer's Requirements.

2 PROJECT INFORMATION

2.1 General

The Employer intends to construct three (3) major offshore wind farms in the North Sea, to the north-east of the Lowestoft area of England, UK, in the offshore renewable energy zone formerly known as the East Anglia zone.

The three (3) offshore wind farms, which will be named Norfolk Vanguard West (NVW), Norfolk Boreas (NB) and Norfolk Vanguard East (NVE), will each have an identical topside design and configuration and similar Jacket substructure (subject to geotechnical information at each location). Each windfarm will share a common connection point to the UK electrical network which is located at the onshore substation located in Necton, Norfolk, UK as indicatively shown in Figure 1.



Figure 1 Wind Farm Locations

Each transmission link (substations and cables) will each have an electrical capacity of up to 1320MW (subject to a variation to the present Development Consent Order) and will transmit power via an HVDC link between the Offshore Substation and the Onshore Substation.

WTGs with a total power output of approximately 1400MW will be installed, with 1320MW feeding into the Offshore Grid Entry point. The Offshore Substation (OSS) will be positioned near the geographical midpoint of the Wind Farm area. For further details reference is made to the Employer's Requirement HVDC-VAT-Z-FD-0001 – Design Basis (Volume 15 Annex 5) and Employer's Requirement HVDC-VAT-E-FD-8901 - Electrical Design Basis (Volume 8 Annex 12).

The energy from the WTGs will be collected via a maximum of 18 (eighteen) 66kV Array Cable strings and transmitted to the OSS. On the OSS the 3 phase high voltage alternating current (HVAC) power will be transformed to 320kV and converted to high-voltage direct current (HVDC). DC Export Cables will transmit the power from the OSS to the Onshore Substation (ONS). Details about the met ocean data are given in the Employer's Requirements Part 3 Volume 15.

The ONS will convert the HVDC power to 400kV and deliver via HVAC 3-phase, via dual circuit cables to the existing TSO substation at Necton, Norfolk, UK. The Necton substation will be extended (by others) to provide additional bays for this purpose.

Remote control and monitoring of Wind Farm equipment installed on the Wind Farm and will be managed from Employer's control centre in Esbjerg, Denmark. Remote control and monitoring of the Transmission asset (OSS, ONS and cables), will be managed from an Operational Control Centre (OCC) contracted separately. This will commence upon Taking Over of the assets. Necessary measures and actions shall be taken under supervision of the control centres, with supervision from the Employer, to ensure the smooth and safe operation of the Wind Farm. For more detailed information, reference is made to Volume 10 (Automation & SCADA) of this Contract.

The Works comprise the design, engineering, procurement, construction, installation, connection, testing and commissioning, verification and defect rectification of the Onshore Substation (including Enabling Works for the Onshore Substation), Offshore Substations and connection to the TSO substation as described within this Employer's Requirement.

2.2 Indicative Project Information

Table 1 presents the indicative project information:

Item	Description
Electrical export capacity (per project)	Maximum 1320MW
Seabed lease period	50 years
Design Lifetime	30 years
Distance to shore (closest point of site to the coast)	NVW: 47km NVE: 70km NB: 72km
Onshore DC Export Cable length	Approx. 60km
Water depth (ref. LAT)	NVW: 25 to 50m NVE: 22 to 42m NB: 21 to 41m
Offshore Site area	NV West: 295km ² NV East: 570km ² NB: 442km ²
No. of WTGs per project	Maximum 100
WTG capacity (expected)	14 to 22MW
Inter-Array Cable voltage	66kV alternating current
DC Export Cable voltage	+/- 320kV direct current

Table 1 Principle Project Information

2.3 Project Data and Document Control

The Employer's Requirements Volume 2 specifies the requirements for Contractor's Documents.

2.4 Other Works Packages

The Employer intends to procure the design and construction of the Project in the following separate packages (these packages are not fixed and may be subject to change and adjustment by the Employer):

1. Onshore Substation Enabling Works:
Now part of the Works
2. Landfall HDD and Groundworks:
Horizontal directional-drilling of cable route at beach landfall area and associated groundworks;
3. Onshore Cables Enabling Works:
Installation of cable ducts and associated infrastructure along onshore 320kV HVDC cable route;
4. Onshore DC Export Cables:
Design, supply, installation, termination, connection and commissioning of 320kV HVDC onshore export cables from the Onshore Substation to the cable landfall area including creation of joint pits and transition joint pit;
5. Offshore DC Export Cables:
Design, supply, installation, termination, connection and commissioning of 320kV HVDC offshore export cables from cable landfall transition joint pit to the Offshore Substation;
6. Array Cables:
Design, supply, installation, termination, connection and commissioning of 66kV cables from the Offshore Substation(s) to and between the WTGs;
7. WTG Foundations:
Design, engineering, procurement, construction, installation and commissioning of foundation structures for the WTGs (WTG foundations are presently expected to include integral transition pieces);
8. Wind Turbine Generators (WTG's):
Design, engineering, procurement, construction, installation and commissioning of WTGs;
9. Ports & Logistics:
Harbours and marshalling areas for the Other Works;
10. Marine Services:
Marine services for Other Works including crew-transfer vessels, lift vessels, service vessels and guard vessels for installation of cables, WTGs and WTG foundations and marine coordination services for all vessel operations within the Wind Farm construction area;
11. Marine Warranty Surveyor(s):
Surveillance of design, planning and implementation of offshore operations;
12. Certification Services
Independent certification and verification bodies will be appointed to review, audit and certify design, manufacturing/construction and installation deliverables and activities;

The Contractor shall cooperate with and share information with the parties the Employer engages to undertake the above works packages (“Other Works Contractors”) and any other parties as required by the Employer.

Requirements relating to interfaces are specified in Employer’s Requirement HVDC-VAT-A-IC-0001 – Interface Management. Full details of the interfaces can be found within: Employer’s Requirement HVDC-VAT-A-LA-0002 – Master Interface Matrix (Volume 6 Annex 1) and Employer’s Requirement HVDC-VAT-A-IC-0002 – Interface Sketches (Volume 6 Annex 3).

2.5 Transmission System Operators (TSO)

The TSO onshore shall be National Grid Electricity Transmission Plc (NGET) who will operate the existing Necton onshore substation and extend the Necton substation to provide additional bays to enable connection of the Norfolk projects.

The Contractor shall schedule the Works in accordance with transmission network and Necton substation outage dates notified by NGET and shall ensure that the necessary parts of the works are completed by the required dates and the Contractor connects and energises the Works in accordance with the dates stated in Appendix 10 [Master Programme].

Within a period of 18 months following commencement of electricity generation by the WTGs, the majority of the Transmission System and associated cabling will be divested to an Offshore Transmission Operator (OFTO) as mentioned in Chapter 2.4 of this Employer’s Requirements. The OFTO will be a party selected by Ofgem (the UK energy regulator) following a bidding process. This will commence based on the expected programme of the projects.

The OFTO will own and operate all infrastructure on the transmission side of the Offshore Grid Entry Point. This is defined in HVDC-VAT-Z-FD-0001 – Design Basis [Volume 15 Annex 5]. The Employer will retain ownership of the 66kV switchgear.

3 GENERAL REQUIREMENTS

General requirements for the Works are specified in the Employers Requirement HVDC-VAT-Z-FD-0001 – Design Basis [Volume 15 Annex 5], and further detailed requirements are specified within the other Volumes and Annexes of the Employer’s Requirements.

4 TIME SCHEDULE

Key Dates, Key Milestones, Time for Completion, Milestone Dates are specified in Appendix 10 [Master Programme] to the Conditions of Contract.

The Employer's Requirements for the Contractor's management and reporting of programme are in the Employer's Requirements Volume 1.

5 SCOPE OF WORKS

The Works includes (without limitation) design, engineering, procurement, construction, installation, connection, testing, commissioning and defect rectification during the Defect Notification Period of the supplied equipment.

The Works shall include, but not be limited to, the following:

1. Provision of all labour, personnel, documentation, Goods, Contractor's Equipment, Materials, Plant, Temporary Works, services and all other things required;
2. Engineering, procurement, fabrication, manufacturing, assembly, construction, installation and commissioning;
3. Full compliance with the relevant conditions of the Consents and the Project Permit.
4. Management of the Works including contract administration and project management, programme management, site management, design management, production management, procurement management, supply chain management, civil construction management, electrical installation, mechanical erection, installation management, environmental management, health and safety management, quality management, interface management (relating to the Contractor's Works and Other Works co-operation);
5. Provision of the Contractor's Documents and modification and updating of such as required to achieve the Employer's acceptance. Contractor's Documents shall include (without limitation) all documents and information necessary to describe, explain, substantiate, plan, procure, construct, install, set to work, commission, operate, maintain and decommission the Works and other documents of a similar type as the Employer may reasonably request, without prejudice to the relevant provisions of the Conditions of Contract;
6. Electrical system design and modelling of the Wind Farm, including assurance of achievement of Grid Code Compliance, System Quality & Security of Supply

(SQSS) and compliance with System Operator - Transmission Owner Code (STC). This shall include modelling of the performance of WTGs, cables and other items engineered (appropriate parameters to be agreed with the Employer) and installed by Other Works Contractors and assessment of the transmission network information supplied by NGET. Such information provided by the Employer can be considered as Relied Upon Information;

7. Establishment of a Site organisation including provision of any temporary facilities (including all Site personnel welfare facilities) required for the execution of the Works;
8. Provision of temporary office accommodation for the Employer at the ONS Site and OSS fabrication sites, to be located adjacent to the Contractor's accommodation and to be of at least equivalent standard to the Contractor's accommodation;
9. Accommodation, welfare and transport for the Employer and Offshore Works Contractors at the OSS Site during hook-up, completion and commissioning activities (numbers of persons detailed within the Contract);
10. Provision and management of the Contractors site storage and lay-down areas;
11. Removal of all temporary facilities on completion of construction and reinstatement of the temporary facilities areas;
12. Preparation of the ONS Site by constructing turn in lanes (in line with the DCO) and access roads to each of the substations;
13. Groundworks to prepare a suitable working platforms for the ONSs. Landscape earthworks design and construction are within Contractor's scope. Permanent landscape planting is Employer's scope while temporary seeding (and associated cultivation and preparation) is Contractor's scope, in line with DCO requirements;
14. Construction of additional bays within the National Grid substation for the Norfolk projects to connect into;
15. All cable works associated with the connection between the converter stations and the connection points within TSO substation;
16. Provision of appropriate temporary and permanent site security measures;
17. Provision of permanent utility connections for electric power, water, telecommunications and drainage at the Onshore Substation;
18. Obtaining the consents, licences and permissions that are deemed his responsibility. These shall be obtained in sufficient time to ensure that the contractual

Programme of the Works can be achieved. The Contractor shall support the Employer in discharging consents/licenses/permissions that are the responsibility of the Employer;

19. Liaison with Other Works Contractors involved in the development of the Wind Farm and the Project, as reasonably required by the Employer.
20. Supporting the Employer in information exchange with Other Works Contractors throughout the duration of the contract period;
21. Assisting the Employer to manage interfaces with Other Works Contractors throughout the duration of the Works;
22. Full implementation of the CDM Regulations 2015, discharging duty-holder responsibilities in accordance with the appointed roles;
23. Assurance and control of all aspects of the quality of the Works;
24. Ensuring that the Works are be fully compliant with the relevant UK and EC Directives as applicable on Base Date.
25. Provision of access to the Works to Employer or Employer's nominated persons or bodies at all reasonable times during the construction and testing period in order that they may witness the production, quality control procedures, testing, commissioning and energisation of the Works;
26. Provision of detailed procedures, method statements and risk assessments for the supply, installation, construction, testing and operation of the Works;
27. any off-site disposal of waste materials including all costs, relevant taxes and statutory fees;
28. Detailed design and engineering of the Foundation of the OSS, including the foundation structure, groundwork, scour protection (if required), appurtenances, grout connection (if required), interfaces, access & egress etc;
29. Detailed design and engineering of the Topside for the OSS, including, technical equipment, Appurtenances, electrical systems, Auxiliary Systems, Structures piping, cabling, interfaces, helideck, emergency accommodation, SCADA, communication systems, access & egress etc;
30. Detailed design and engineering of all interfaces between OSS foundation and equipped OSS Topside;
31. Detailed design of cable entry system for the subsea cables (Inter-Array Cables, Export Cables) that is fully aligned with the Employer and Other Works Contractors;

32. Pre- and post- installation seabed surveys, removal of obstructions and recovery of any dropped objects at the OSS Site;
33. Mobilisation, demobilisation, of the Offshore Installation Spread, provision of all fuels, materials, consumables and all other things required to operate to complete the installation and hook-up of the OSS;
34. Provision of dockside facilities for assembly of the OSS including sea fastening, grillage and load out onto Contractor's vessels;
35. Marine engineering and planning of all offshore transport & installation activities and assisting the Employer with obtaining approval of the MWS for offshore activities;
36. Loadout, sea-fastening, transport to site and installation of the OSS;
37. Hook-up, completion and commissioning of the OSS;
38. Installation of scour protection of the OSS Foundation (if required);
39. Making good the seabed surface following installation of the OSS (if required);
40. Provision of accommodation, welfare, services and transport to and from the OSS Site for all Contractors and agreed Employers personnel required to work offshore during OSS hook-up, completion and commissioning activities;
41. Transport & delivery of all plant, equipment & materials;
42. Provision of data relating to the Works for data room purposes relating to the sale of the Offshore Transmission System to the OFTO;
43. Receipt, quality check, installation & incorporation into the Works of any Employer free-issue material and/or equipment;
44. Detailed design and engineering of the ONS including civil works, electrical works, ancillaries, buildings & structures, utilities, control & protection, SCADA, communications, auxiliary systems, etc;
45. Additional surveys as specified in the Contract and as may be required for the proper design & execution of the ONS Works;
46. Soil stabilisation (if required) to optimise the onshore foundation works required.
47. Energisation, testing and commissioning of the HVDC System and connection to the TSO substation to demonstrate compliance with the Employer's Requirements, relevant National Grid Technical Standards, Grid Code compliance, compliance with the STC;
48. Detailed engineering for construction, fabrication, Installation, commissioning, testing;

49. Detailed method statements and risk assessments (project, HSSE, etc.);
50. Provision of any site facilities required incl. any supply facilities (offices, tables, electricity, internet, water supply, waste management, etc.) at any sites incl. marshalling ports;
51. Design and provision of suitable corrosion protection including coatings for the Works for the Design Lifetime;
52. Documentation, including As-Built Documentation;
53. Conducting FAI, FAT, SAT, HAT SIT tests and inspections;
54. Organisation and execution of the Tests on Completion and trial operations;
55. Training of the Employer's personnel and/or O&M contractor on maintenance and Plant operation; Employer will provide training requirements.
56. Provision of comprehensive operating and maintenance documentation for the Works including manuals, drawings and Maintenance Schedule.
57. Provision of detailed documentation (including native files agreed between the 2 Parties) for the design of the OSS and the ONS, including all relevant documents in an "As Built" status.
58. Provision of UK CA declaration of conformity for the OSS;
59. Remedying of any Defects in the Works.

The more particular and detailed requirements for the Works are specified within the other Volumes of the Employer's Requirements.

6 PROJECT MANAGEMENT

Proactive project management will be essential throughout all phases of the Works. The Contractor shall allocate sufficient resources to execute all aspects of project management and to resolve issues in a timely and efficient manner.

The Contractor shall undertake his activities under the Contract in a spirit of mutual trust and co-operation with the Employer and shall act at all times in the best interests of the Project.

The Contractor shall at all times co-operate with all parties involved in the Project including those as set out in the Contract. Co-operation shall include but not be limited to a willingness to share information and participate in identifying and addressing project opportunities and risks.

The Contractor shall adhere to the management processes and methodologies contained in its Project Management Plan. Additionally, the Contractor shall comply with the Vattenfall Contract Administration Guideline specified in Appendix 11 to the Conditions of Contract.

The Contractor shall promptly identify and advise the Employer of any new or changed project management and interface requirements relevant for the execution of the Works and shall provide all relevant project and interface information required by the Employer. The Contractor shall coordinate the Works to ensure the effective completion of all interfaces.

6.1 Contractor's Representation

The Contractor shall, in addition to "Contractor's Representative" referred to in Sub-Clause 4.3 of the Conditions of Contract, have an appointed a suitably experienced and dedicated Contractor's representative onboard all of its installation vessels at times where the Contractor is performing Installation and Commissioning Works on the platform (this excludes periods where the no Commissioning activities are taking place on the substations, e.g. during turbine planting). The Contractor shall also have an appointed suitably experienced and dedicated Contractor's representative on Site during the installation and commissioning of Other Works on the OSS and ONS.

6.2 Meeting and Reporting

The Contractor shall attend Progress Meetings in accordance with Sub-Clause 4.31 of the Conditions of Contract.

The Contractor shall attend co-ordination / design meetings convened by the Employer at a frequency agreed as deemed necessary by both Parties, but in any event not less frequently than monthly to discuss and ensure that designs are correct and that conflicts between the Contractor and Employer or other parties are identified and resolved in a timely and efficient manner.

The Contractor shall attend and provide appropriate representation at other meetings as requested by the Employer. Such meetings shall include, but not be limited to, Health & Safety meetings, interface meetings, programme review meetings, risk review/reduction meetings, Site Construction Planning meetings.

Venues of meetings will be selected by the Employer and shall ensure that the total distance travelled by all participants of the meetings is minimised. This may be some of the Project's main locations or may be in a different locations that is best for the majority of participants. The Contractor shall provide suitable facilities for meetings at the Sites and any of the Contractor's premises.

6.2.1 Progress Reports

The Contractor shall prepare and submit to the Employer Progress Reports in accordance with Sub-Clause 4.31 of the Conditions of Contract.

Additional reports or updates on specific issues shall be produced by the Contractor, at no extra cost, at such other times as the Employer requests.

The Progress Reports shall be prepared in an agreed form and shall include, but not necessarily be limited to, the following information:

1. An executive summary;
2. An updated programme, showing an accurate status of all activities within the reporting period and all known and expected accelerations and slippages against the baselined Contractor's Programme;
3. Forecasts of the effect of the current situation on project completion and the degree of criticality on each section of Plant or area of the Works;
4. Forecast dates against key events and associated intermediate dates shall be given and the basis upon which the forecast date is derived. If slippage has been reported, the cause shall be clearly indicated together with details of corrective action being taken by the Contractor;
5. Commentaries on the design, engineering, procurement, manufacture, construction and commissioning progress achieved within the reporting period and a forecast lookahead for the next 3 months compared with the baseline Contractor's Programme;
6. Quality assurance issues including status of hold points, audits and non-conformances within the reporting period and those due for submission in the next 3 reporting periods;
7. Health, safety & environmental issues, and monthly man-days returns for the purpose of the Employer calculating accident frequency rates (AFRs) during the project (KPIs will be put in place to measure performance);
8. Reports of health, safety, environmental and CDM compliance audits undertaken during the reporting period and notification of forthcoming audits;
9. An MDR showing submission dates, issue status and approval status of all documents submitted within the reporting period and those due for submission within the next 12 weeks.
10. Photographic records of manufacturing/construction progress shall be provided where required. Photographs shall be submitted in digital format and be date/time stamped. They shall be annotated/have a commentary around the

picture to show the progress of the respective items, and what is to be carried out in the next period. This shall include items such as H&S precautions.

The Contractor should note that such photographs may be circulated by the Employer for its internal reporting purposes and should comprise content appropriate for this purpose;

11. Financial status including instructions, variation requests, variation proposals, value engineering, variations, Application for Payment, invoice status, payment status and valuation progress chart compared to cash flow forecast based on the baseline Contractor's Programme;
12. Information/action required from the Employer during the next period;
13. Labour resources (by operative) and Contractor's resources for the period being reported and planned for the next period;
14. Materials ordered and delivered for the reporting period and for the next 3 reporting periods;
15. Plant and labour returns including but not limited to names and position and working hours. These shall be recorded on a weekly basis;
16. Updated project risk register
17. Record of Early Warning notifications and notifications of claims;
18. Updated Design Decision Register.

6.2.2 Financial Reporting

The Contractor shall submit (as pdf and native electronic copy) a Contract valuation progress report (format to be submitted by Contractor for approval by Employer), derived from a combination of projected spend profile 'S-curves' for design, engineering, procurement, construction installation and commissioning to the Employer not later than twenty-eight (28) Business Days after the Contract Date.

The contract valuation progress chart shall be baselined against the Contractor's Programme and shall show the actual progress of the Works and the value of work done.

The contract valuation progress report shall be issued with each monthly Progress Report (as pdf and native electronic copy).

6.3 Programme

The Employer's Requirements Volume 1 specifies programme management requirements.

6.4 Risk Management

The Employer's Requirements Volume 16 specifies risk management requirements. Additionally, Sub-Clause 25 of the Conditions of Contract specifies the requirements for Early Warning notifications.

6.5 Performance Review

The Contractor shall participate in 'lessons learned' reviews and workshops ("Lessons Learned Reviews") at approximately 6 month (or as otherwise required by the Employer's Representative) intervals throughout the duration of the Contract.

The purpose of the Lessons Learned Reviews is to evaluate the performance of all of parties involved in the Contract and to identify areas for improvement and to improve working practices and relationships between the parties. The Lessons Learned Reviews will be facilitated by the Employer and will be conducted in a blame-free manner in the best interests of the Project.

Participation in a Lessons Learned Review will typically involve 3 to 4 senior members of the Contractor's personnel for a half-day session. Lessons Learned Reviews may be combined with monthly progress meetings at the discretion of the Employer.

6.6 Production Control and Manufacture

6.6.1 Places of Manufacture

The manufacturers and places of manufacture, testing and inspection of major Plant items shall be as stated in Appendix 13 to the Conditions of Contract.

6.6.2 Subcontracting

Those parts of the Works that the Contractor intends to subcontract shall be clearly identified by the Contractor. The list of Subcontractors shall be exhaustive and encompasses all major Plant items, equipment and Materials critical to the construction and operation of the Plant, and major Works. Key Subcontractors shall be identified in Appendix 13 as agreed.

Major items shall only be subcontracted to Subcontractors stated in the list. The Contractor shall not appoint any alternative subcontractors without the prior written consent of the Employer.

A Subcontractor's Management Plan shall be developed by the Contractor and provided to the Employer for acceptance. Once accepted, all subcontractors shall be selected, appointed and managed in accordance with it. A copy of the subcontract shall be made available to the Employer upon request prior to a subcontract being entered into by the Contractor.

All relevant requirements of the Contract including the Employer's Requirements relating to quality, health, safety and the environment shall be duplicated in all Subcontracts.

The Contractor shall monitor to ensure that all of its Subcontractors and suppliers have adequate controls covering health, safety and the environment, programme management, resource management where applicable and quality control and that this information is submitted to the Employer in advance of the commencement of specialist Subcontract activities in order for the Employer to have the opportunity of auditing the Key Subcontractors.

The Employer reserves the right to refuse access to the Site to any Subcontractor that the Employer reasonably demonstrates as being unsuitable in terms of quality of product, health and safety record, environmental performance, competence or lack of technical and financial resource.

6.7 Labour Management and Site Industrial Relations

The Contractor shall be solely responsible for establishing and maintaining appropriate labour management practices, good industrial relations and acceptable levels of labour productivity to achieve completion of the Works. The Contractor shall formulate a strategy that allows compatible and harmonious labour relations policies to be adopted by all other contractors and Subcontractors that may be employed on the Works.

The Contractor shall promptly inform the Employer of all matters relating to its management of site labour affairs both current and anticipated. The Contractor and all of its Subcontractors shall also make available to the Employer all statistics, reports and other data that may be required regularly e.g. part of the monthly report or occasionally on all matters concerning the employment of people on the Works.

The appointment of all Subcontractors remains the responsibility of the Contractor, including the assessment of their proposed site labour policies, which shall conform to the principles laid down in the Contract.

6.8 Community Relations

The Contractor shall assist the Employer in establishing and maintaining positive relationships with the local community, land-owners, businesses and authorities.

This assistance shall include, but is not limited to:

- Adhering to the terms and limitations of Consent and Project Permit conditions including: working hours, working areas, noise limitations, traffic movements, notification timescales;
- Participating in the Employer's Project publicity events including local community briefings, supply chain information forums, local authority liaison meetings.

6.9 Communications

The Contractor shall seek the Employer's prior consent to any press releases or public announcements in relation to the Project (consent shall not be unreasonably withheld) and provide draft wording of such for the Employer's agreement.

7 The Sites

Health, Safety and Environmental requirements applicable to the Sites are set out in the Employer's Requirements Volumes 3 and 4. All requirements therein are also applicable to sites provided by the Contractor (and are deemed to apply to all Sites managed by the Contractor and/or for which the Contractor is the principal contractor under the CDM Regulations).

7.1 Offshore Substation Site

The OSS Site boundaries are as indicated on drawing in Employer's Requirement HVDC-VAT-A-XZ-0001 – Site Layout [Part 15 Annex 30]. The Contractor shall not undertake any Works outside of the areas indicated on this drawing.

The Employer has entered into Agreements for Leases with The Crown Estate (the owner of the seabed) for the offshore Sites which includes a Form of Lease which the Employer will enter into following a positive FID (hence for the Lease”).

The Lease places obligations on the Employer which the Contractor shall comply with and assist the Employer to discharge. The Contractor acknowledges that these obligations include the following requirements, which the Contractor shall comply with at all times:

1. To procure that the Works are designed using the reasonable skill care and diligence expected of appropriate professional designers experienced in designing projects of a similar scope and complexity having due regard to the industry's knowledge and standards at the time of design and installation of the Works;
2. To commence with the installation of the Permanent Works at the OSS Site within twelve (12) calendar months after the date of execution of The Lease. This shall

be aligned with the Master Programme to ensure compliance with other 3rd party commitments; and

3. To ensure that the Employer's Taking Over of the Works occurs within twenty four (24) months (or such other period as shall be agreed with The Crown Estate) after commencement of installation of the Permanent Works at the OSS Site (time being of the essence) provided that Taking Over of the Works is not delayed by a failure of the Employer, the Employers Group Other Works Contractors to complete necessary DC Export Cables or Array Cables installation or connection works, or by any other 3rd party.

The Contractor shall submit its Construction Phase Plan for the Employer's acceptance a minimum of 90 Business Days before the Contractor's mobilisation to the OSS Site.

7.2 The Onshore Site

The ONS Site boundaries are as indicated on drawing Employers Requirement HVDC-VAT-C-XE-0001 (Part 3 Volume 15 Annex 11) .

Access to the site will be provided by a new turn in lane on the A47, and a permanent access road. The Contractor shall be responsible for the construction, all maintenance of the items, and for the reinstating the surface of the access road following the completion of the Works.

The Contractor shall be responsible for managing traffic movements within the ONS Site and for all traffic movements accessing the ONS Site, including at the junction with the A47 public highway.

The Contractor shall submit its Construction Phase Plan for the Employer's acceptance a minimum of 60 Business Days before the Contractor's mobilisation to the ONS Site.

The Contractor shall submit fully detailed drawings showing the proposed locations of its (and its Subcontractors) offices, materials storage, lay down, and parking within the ONS Site area together with the details of any other temporary buildings it will require. The drawings shall be submitted 28 Business Days prior to the commencement of Works. Full details of post construction ONS Site restoration works to satisfy Consent conditions shall also be provided.

The Contractor shall publish and maintain a set of site rules detailing specific requirements for all personnel working on his Site. The Site rules shall be briefed to and issued to all on-site workers by the Contractor as part of their Site induction.

7.3 Project Permits and Consents

The Contractor shall comply with all Project Permits and Consents applicable to the ONS Site and OSS Site and shall assist the Employer to discharge its obligations set-out therein. Project Permits and Consents include but are not limited to the documents, regulations, standards and conditions contained in the Employer's Requirements Annex 15.2.

7.4 Temporary Facilities and Accommodation

The Contractor shall be responsible for determining the location of temporary facilities, contractors' compound and accommodation required for the Works, including obtaining any necessary consents, permissions and access to storage areas, land-based site facilities and any other associated areas outside of the ONS Site and OSS Site.

The temporary facilities, accommodation and surrounding areas shall be always kept clean and tidy and the whole area shall be cleaned weekly and upon the completion of the Works.

7.4.1 Appearance of Temporary Facilities and Accommodation

All temporary facilities and accommodation shall be of a clean and presentable appearance and in a colour permitted by the Project Permit. They shall be arranged in a safe and tidy manner and be properly maintained throughout the duration of the Works at the ONS Site and OSS Site.

Before the erection of any temporary facilities or accommodation, the Contractor shall obtain the prior consent of the Employer as to the size, type, condition, location, access and services for the temporary facilities and accommodation.

The Employer's consent shall also be obtained before any temporary facilities or accommodation is dismantled or removed from the ONS Site. The Contractor's accommodation shall be well maintained and suitably identified with the Contractor's name and that of its Site Manager. The Contractor's temporary facilities and accommodation shall comply with the requirements of the Project Permit conditions.

All lighting (internal and external) required for its temporary facilities and accommodation shall be supplied by the Contractor and shall be suitable and sufficient for safety and site security. The Contractor's proposed lighting arrangements shall be subject to approval by the Employer prior to their installation..

7.4.2 Restoration of Temporary Facilities Area

On completion of the Works, the temporary facilities and accommodation areas at the ONS Site shall be reinstated in accordance with the requirements of the Project Permits and Consents as specified in the Employer's Requirements (Annex 15.2). The reinstatement works shall be in accordance with Employers Requirement 'Onshore Substation Civil and Buildings Requirements' [HVDC-VAT-C-FD-9501]; Section 3.4.

7.4.3 Overnight Accommodation

No caravans or permanent parking are permitted at the ONS Site and personnel shall not stay overnight at or on any parts of the ONS Site or locations adjacent thereto without having obtained the prior written permission of the Employer. Such permission shall only be granted in case of construction requirements such as security at the ONS Site or similar.

7.4.4 Risk of Fire – Onshore and Offshore Works

The Contractor shall obtain all permits, permissions, and the like required for fire safety for all its construction buildings and marine facilities.

The Contractor shall ensure that adequate firefighting facilities and procedures are available for the duration of the Works and that personnel are adequately trained and competent in their use. The Contractor shall produce a fire control safety plan prior to construction identifying the hazardous activities and the actions proposed to reduce the risk of fire. The fire control safety plan shall be maintained and updated for the duration of the Works. Good housekeeping shall be maintained during construction to avoid the accumulation of combustible wastes.

The Contractor shall comply with the requirements of the Joint Code of Practice (Fire Prevention on Construction Sites) published by the Fire Protection Association.

Fire protection for all Works shall be in accordance with all relevant legislation and shall take account of the nature of the works being performed and the associated method statements and risk assessments.

The Contractor shall ensure that fire prevention procedures are contained within its Construction Phase Plan.

7.4.5 Onshore Works: Disturbance

The Contractor and the Contractor's Personnel including its Subcontractors working on the OSS Site are restricted solely to those areas necessary for the construction of the Works, unless otherwise agreed by the Employer.

The Contractor the Contractor's Personnel including its Subcontractors shall observe noise limits and working hours and these shall be included within the Contractor's Method Statement to be approved by the Employer. The noise limits and working hours shall be in accordance with the planning conditions stated in the Project Permit.

The Contractor shall plan and schedule construction traffic to and from the Site so as to minimise disruption and disturbance to local roads, schools, residences and businesses.

The Contractor is referred to the Employer's Requirements Volume 4 for further details regarding avoiding and managing disturbance.

7.4.6 Onshore Works: Security

The Contractor shall be responsible for the security of the ONS Site and (including any site area under his management as principal contractor) until such time as the Works may be taken over by the Employer or by any subsequent contractor. The Contractor shall be responsible for the security of his Works for the duration of any maintenance or defects correction activities.

The Contractor shall ensure that there is no unauthorised access to the ONS Site.

The Contractor shall at all times minimise the construction area occupied by the Works. The contractor is responsible for securing all of construction site boundaries under his control.

7.4.7 Housekeeping and Waste Removal

Waste removal requirements are further specified in the Employer's Requirements Volume 4.

The ONS Site and OSS Site may have areas of sensitive ecology, hydrology and avian habitats and as such the Contractor shall prevent pollution, contamination and disturbance as a result, directly or indirectly, from any activity.

The Contractor shall establish and implement a Site Waste Management Plan and ensure that all waste is removed by a licenced waste carrier and disposed of at a licensed waste disposal site.

No unlawful discharge of waste materials from construction related activities and no littering are permitted. The Contractor shall provide to the Employer on demand copies of any certificates for waste removal and its disposal.

No access is granted by the Employer to the Contractor to any area beyond the defined boundaries of the ONS Site and OSS Site.

Where necessary, working areas shall be fenced off. Personnel, machines and equipment shall be restricted to operations within these areas.

Working areas and trenches shall be adequately protected to avoid endangerment to the general public and the entrapment of livestock.

7.4.8 Onshore and Offshore: Source of Site Services

The Contractor shall make his own arrangements for the supply of electricity, water, wastewater (if required) and telecommunications on the ONS Site and OSS Site and for

the disposal of sewage, wastewater and all other waste materials. Such arrangements shall comply with the requirements of all relevant statutory authorities.

Permanent utility services shall be installed at the ONS Site by the Contractor. These will typically be:

- 11kVac 3-phase electrical power routed in a ring around the ONS Site;
- Mains water, and wastewater, if required, running along the access road to be distributed to the ONS Sites;
- Telecommunications running along the access road to be distributed to the ONS Sites.

Costs shall be administered in line with Sub-Clause 4.23 of the Conditions of Contract.

7.4.9 Onshore: Sign Boards

Before erecting any sign boards or posters outside the temporary facilities area or the OSS Site access points the Contractor shall obtain approval from the Employer as to their size, type, location and wording. Adequate signing shall be provided to stop ONS Site traffic using unauthorised accesses and roads. Adequate signing shall also be provided to stop unauthorised traffic from entering the ONS Site.

The Contractor shall erect signage at the entrance to the ONS Site bearing the company name, contact details for the Site Supervisor, details of the First Aid services on the ONS Site, and alerting visitors to the site hazards and the Personal Protective Equipment required to be worn whilst on the ONS Site.

7.5 Employer's Facilities at the Contractor's Sites

The Contractor shall provide, and pay all charges in connection with, separate and dedicated office accommodation for the Employer, the Employer's Personnel at the Sites or any other location and premises where the Employer or the Employer's Personnel is present. Other Works personnel shall be allowed for at an agreed rate, provided there is sufficient capacity available within the accommodation areas.

The Contractor shall provide the following accommodation and facilities for the sole use of the sole use of the Employer and the Employer's Personnel (and visitors as may be required to access the Sites from time to time) free of charge:

7.5.1 Onshore Substation Site

- a) Office space suitably equipped with desks, chairs, cupboards, filing cabinets, coat racks for 15 people.
- b) One meeting room including a meeting table and chairs and a television screen (minimum 42" screen size) suitable for video-conferencing. The room shall be capable of seating 12 persons comfortably;

- c) One kitchen area with sink, small refrigerator, electric kettle, microwave oven, hot and cold running water and hand drying facilities;
- d) One drying room with heaters and secure storage facilities for 12 sets of PPE including overalls, trousers, jackets and boots;
- e) Heating and ventilation of all indoor areas;
- f) Four fixed IP telephones and a broadband internet connection (minimum connection speed 20MB/s)
- g) Detailed explanation:;
- h) three toilet cubicles, three urinals and three wash basins (with hot and cold running water) for washing, electric hand dryers for the Employer's sole use;
- i) 12 parking spaces adjacent to the office accommodation;
- j) A working A3 colour printer and photocopier, including all consumables.

The above accommodation shall be available not less than 10 Business Days before the commencement of the Works at the ONS Site.

The above accommodation shall be of modern construction, complete with opening windows, window security shutters, be of insulated design and be fitted with suitable floor covering, recessed and diffused fluorescent lighting, heating and ventilation. The accommodation shall be suitable for its location and climatic conditions.

The Contractor shall be responsible for arranging daily cleaning of the accommodation and for replenishing all consumables as is required.

The Employer's telephone charges shall be met by the Contractor.

The Contractor shall be responsible for the provision of a 240Vac electrical power supply to the accommodation on a 24 hours per day, seven days per week basis for the duration of the Works at the ONS Site.

The Contractor shall include for connecting all utility supplies and drainage to the above accommodation and facilities.

The Contractor shall be responsible for all costs and charges associated with the above accommodation and facilities including but not limited to purchase costs, rental charges, electricity charges, heating charges, telephone charges, broadband charges, water charges sewerage charges for the duration of the Works at the ONS Site.

7.5.2 Fabrication Sites

The Contractor shall provide the following facilities for the Employer's use at all sites where the OSS foundation and topside are fabricated:

- a) Office space with desks, chairs, cupboards and filing cabinets for 15 people.
- b) Use of one kitchen area with sink, small refrigerator, electric kettle, microwave oven, hot and cold running water;

- c) Heating & ventilation of all indoor areas;
- d) Use of wireless broad-band internet connection of not less than 50Mbps speed;
- e) Access to sanitary facilities;
- f) A3 colour printer & photo-copier

The facilities shall be available to the Employer at all times while Works are being undertaken at the fabrication sites.

The Contractor shall be responsible for providing twice-weekly cleaning of the Employer's accommodation

The Contractor shall be responsible for the provision of a 240Vac electrical power supply to the Employer's accommodation on a 24 hours per day, seven days per week basis during execution of the Works.

The Contractor shall include for connecting all utility supplies and drainage for the facilities.

The Contractor shall be responsible for the Employer facility electricity bills, heating bills, waste removal bills including water and sewerage during execution of the Works.

8 CDM Responsibilities

The Contractor has duties as a designer and a contractor and- where so appointed by the Employer- as principal designer and principal contractor under the CDM Regulations.

The Contractor warrants that he has sufficient organisational capability (as defined within the CDM Regulations) to discharge the duties of principal designer and principal contractor for the Works in accordance with the CDM Regulations.

The Employer will retain the role of Principal Designer for the Works. The Employer will also retain the role of Principal Contractor for all offshore works. The Contractor will be appointed to the role of Principal Contractor for the onshore works. In the cases where the Contractor is not the named Principal Designer or Principal Contractor, they shall assume the role of Designer or Contractor respectively.

The Contractor shall ensure that a copy of the CDM F10 form is displayed at all sites for which he is the principal contractor.

Existing pre-construction information (PCI) is included within the Employer's Requirements Annex 15. The Contractor shall assist the Employer to prepare and compile further PCI (limited by their involvement and other contracted obligations to the relevant works) and ensure it is communicated effectively to designers and contractors involved with the Project.

Table 2: Summary of the CDM Regulations duty holders applicable to the Project.

Site / Works	Works phase	Role	Duty-holder
All Sites & Works	All Phases	Client	The Employer
Onshore Substation Site	All phases	Principal Designer	The Employer
		Principal Contractor	The Contractor
Offshore Windfarm Site (including OSS Site)	All Phases	Principal Designer	The Employer
		Principal Contractor	The Employer

Table 2 CDM Duty-holders

The Contactor shall afford the Employer the opportunity at all times throughout the duration of the Works to execute due diligence and to continue monitoring the performance of the Designer and the Contractor. This will include but not be limited to undertaking CDM related audits and being invited to relevant Project related CDM meetings.

The Contractor shall provide monthly updates as part of Progress Reporting regarding its CDM compliance status as Designer and Contractor and of Designers and Contractors amongst his Subcontractors.

The Contractor shall provide Health & Safety files for the Works, the file template shall be issued to the Employer for acceptance within one calendar month after the Contract Date.

The Contractor shall ensure that any of his designs prepared or modified outside of the United Kingdom are in full compliance with the CDM Regulations.

The Contractor shall ensure it provides visibility of safety performance and shall inform the Employer immediately upon identifying any risks which could cause harm to people, property, the environment, breach legislation and/or impact the project schedule.

Reference is made to the Employer's Requirements Volume 6 [Interfaces] for further details of the interface and scope boundaries between the Contractors and between CDM sites.

9 Document Metadata Tags

Project management, Scope of Work, CDM.