

KBH02 Questions and Answers, 19 Mar 2020

No.:	Question	Answer
1	<p>Technical design data for the 132 kV subsea power cable; Capacity, Cable Cross Section, Core Material, Insulation Material, Number of cores, Number of fiber-optics included, Manufacturer (if decided).</p>	<p>Technical data for the 132 kV subsea power cable:</p> <ul style="list-style-type: none"> • Capacity – 920 A • Cable Cross Section – 1200mm² • Core Material – Aluminum • Insulation Material – XLPE • Number of cores – three • Number of fiber-optics included – One • Manufacturer (if decided) - Not decided yet.
2	<p>New subsea power cable route soil conditions. Known UXO, Ship wrecks etc.</p>	<p>Based on regional data, soil conditions in the upper part are expected to consist of sand and glacial till, with chalk below. It is expected that a trench can be dug in the seabed for the installation of the sea cable.</p> <p>In the summer of 2020, a seabed survey will be carried out which will form the basis for the final location of the sea cable route. This takes into account any shipwrecks, potential UXO etc. This is standard work for determining the final location of the sea cable route in Energinet.</p>
3	<p>Route survey requirements; pre- and post-laying.</p>	<p>There will be 2 surveys, one pre-survey and one post-survey</p> <ul style="list-style-type: none"> • Pre-survey is made prior to installation work to determine the best possible sea cable route. Also described above in answer No. 2. • Post-survey is made after installation work to ensure that the sea cable is adequately protected or additional protections of the sea cable is needed e.g. with additional backfill material. <p>This is standard working before and after sea cable installation in Energinet.</p>
4	<p>The proposed route for the new power cable is in area with high density of marine</p>	<p>The Contractor which will be assigned for the works will be experienced from earlier works in similar areas. The works will be described in</p>

	traffic. How is the risk for damage/collision from third party mitigated?	detailed method statements including risk assessment.
5	There appears to be an area immediately to the north of the cable route (north of Lynetteholmen) where vessel are anchoring. Will there imposed restrictions on anchoring in the area during cable installation and burial operations?	The cable route will not be placed in or go through an ship anchoring area.
6	Old oil-insulated cable removal procedure. Describe how oil-leakage and pollution risks are mitigated	First, empty the oil from the cable. The cable is then removed by pulling it up by the seabed and onto a ship. The cable subsequently unloads in a nearby port. Energinet has done this on similar projects.
7	In what way are Energinet liable for damage in relation to crossings according to the crossing agreements?	Don't know yet. We are still working on the crossing agreements.
8	Who is the contractor on the project?	Not decided yet. Tendering is under preparation.
9	Who is the Marine warranty surveyor and will they be present during loading/offloading of the cable?	Not decided yet. Tendering is under preparation. The Marine warranty surveyor will be present during loading/offloading of the cable.
10	Please provide a method statement for the cable laying	The Contractor is not chosen. Tendering is under preparation. The method statement depends on the type of laying vessel.
11	Who will be responsible for the transport from Danish harbour to KBH?	The cable laying vessel will be responsible. The Contractor is not chosen. Tendering is under preparation.
12	Value of goods at risk during transport - correct this is : <ul style="list-style-type: none"> • AC station DKK 1,5 • Land cable DKK 55,0 • Offshore cable DKK 87,3 • Total: DKK 143,8 	The maximum value per transport of goods: <ul style="list-style-type: none"> • AC station DKK 1,5 => Correct • Land cable => The maximum value per transport is DKK 5 mill. • Offshore cable => The maximum value per transport is DKK 60 mill.
13	Could it be confirmed, that risk to be insured is inland transit (truck and ship) alone, plus contingent cover of transport of goods to the Danish site (Kalundborg and Site in KBH respectively)	Confirmed

14	Can you please inform about the method for the cable-laying? From what kind of vessel will the cable laying operations be performed?	<p>The Installation of the cable will most likely be performed in the following steps.</p> <ul style="list-style-type: none"> - a trench is excavated or flushed in the seabed, depending on seabed conditions. Seabed survey is planned in Q2+Q3-2020. - the actual laying of the cable will thus be in a pre-excavated /flushed trench. - the cable will after installation be covered with the excavated seabed and other covering material. <p>The above process is used many times in similar conditions.</p> <p>A contract with a cable laying vessel is not yet in place. The vessel will most likely be a barge or similar as the water level is from 5-16 meters.</p>
15	Which contractor will perform the cable laying? Which supplier of cable?	A contract with a cable laying vessel is not yet in place and a contract with a cable supplier is not yet in place.
16	Is spare cable available?	Yes, there will be spare cable, app. 500 meters incl. a cable joint.
17	Is the subsea survey report available?	The seabed survey report will be available end 2020.

End of Q&A.

Willis Towers Watson
Michael Ekdahl,
Senior Placement Specialist