Questions & Answers

Horns Rev 3

Q (13.07.2015):
It follows from the License for construction of Horns Rev 3 (term 3.5) that the minimum height from the lower-most tip of the blades to the turbines to sea level (HAT) shall be 21.5 m. However, according to the news presented 13.01.2014 on the large-scale OWF website, the Danish Maritime Authority has accepted to reduce the measure for the required air gap to a minimum of 20 m between blade tip and HAT for both Horns Rev 3 and Kriegers Flak.
Would you please inform what measure will be applicable to Kriegers Flak?

A: There has been a discrepancy between the license of construction for Horns Rev 3 and an answer given on our website previously in the tendering process, with regard to the allowed minimum height from lowest blade tip to sea level (HAT).

In the answer on our website, it was stated that the allowed minimum height from lowest blade tip to sea level (HAT) is 20 meters, applicable to both Horns Rev 3 and Kriegers Flak. In the license of construction for Horns Rev 3 (condition 3.5) a minimum height of 21.5 meters (to HAT) is required.

We have clarified the matter with the Danish Maritime Authority, who have stated that it is sufficient with a minimum height of 20 meters from lowest blade tip to sea level (HAT). This will also be applicable to Kriegers Flak.

Clarification to tender conditions with respect to compensation from Energinet.dk

Q1: It follows from the tender conditions clause 6 that Energinet.dk shall compensate objectively justified losses up to an aggregate amount of DKK 800 million due to Energinet.dk's non-compliance with time limits and conditions for connection to the grid of the off shore wind farm, including time limits for energisation and objectively justified losses suffered due to the facilities for transmission of power to shore not being functional, including not being able to deliver electricity from the offshore wind farm to the collective grid after having been put into service. The question is if "*objectively justified losses*" should be interpreted as strict liability (in Danish: *Objektivt ansvar*") in accordance with ordinary rules of Danish law?

A1 (03.02.2015): Objectively justified losses should be interpreted firstly in accordance with section 31 of the RE act where the liability in damages is stipulated. The wording of section 31 (3), of the RE act is this (unofficial translation):

"If Energinet.dk does not comply with the time limits and conditions for grid connection of the offshore wind farm according to the terms of the tendering procedure, Energinet.dk shall have objective liability for damages for any consequential loss suffered by the electricity Producer"

The objective liability means that there is liability, even if the delay is not due to negligent or intentional action.

Q2: Do losses incurred by the concessionaire due to Energinet.dk's non-compliance with time and conditions for connection to the grid of the off shore wind farm include consequential losses incurred as a result of the delay or lack of functionality in the tender conditions clause 6 and section 31 of the RE act?

A2: The damages include documented necessary additional costs and production loss due to delay or lack of functionality. It follows from section 31 of the RE Act that Energinet.dk shall have objective liability for damages for any consequential loss suffered by the electricity Producer. It has to be noted that the concessionaire shall mitigate its losses as much as possible.

Q 3: The concessionaire is in the process of erecting the turbines, and some of the turbines are already producing, when Energinet.dk's transmission facility is suddenly not functioning after having been connected to the grid. To which provision in the RE Act should this scenario be treated- section 31 or section 35 of the RE Act? And to which provisions will Energinet.dk compensate the concessionaire for the loss of production (revenue) for already functional wind turbines, costs related to having to establish diesel generators on some of the turbines (CAPEX), additional costs for vessels, man-hours etc. as a result of the delay in erecting the rest of

the turbines (CAPEX) and loss of production in relation to the rest of the turbines caused by the delay in erecting the turbines (which again is caused by the non-functioning transmission facility).

A3: When the 1st kWh has been delivered from a turbine, compensation can no longer at all be granted pursuant to section 31 of the RE Act to this turbine. Instead payment can be made pursuant to section 35 of the RE Act stipulating the rules of compensation after a downward adjustment. However, when a wind turbine is in the erecting phase and hasn't delivered any kWh to the grid, compensation can be relevant pursuant to section 31 of the RE Act. It follows that if Energinet.dk's transmission facility is suddenly not functioning after having passed a successful commissioning test and the erection of turbines is still ongoing, i) turbines who have already or are ready to deliver the first kWh to the grid will receive payment pursuant to section 35 of the RE Act, cf. section 34, while ii) turbines who haven't delivered any first kWh to the grid and are not ready to do so, could be compensated pursuant to Section 31 of the Re Act. A turbine is considered to be "ready to deliver" if it has successfully completed a partial compliance test according to Energinet.dk's document TF3.2.5.

Section 31 of the RE act ceases to apply when the construction phase of the offshore wind farm is completed, that is when the licence for electricity production has been granted under section 29 of the RE Act and all turbines of the offshore wind farm are in operation.

There is a possibility that all the cost and losses mentioned above could be compensated or paid pursuant to section 31 of the Re Act provided there is no event of force majeure. To what extent this will be the case, depends especially on the concrete situation of the concessionaire who has an obligation to mitigate its losses as much as possible. For instance Energinet.dk would not compensate any additional costs for vessels and man hours for the rest of the turbines which are under installation in case the installation process could proceed with the additional use of emergency generators. In this example only the additinoal costs related to generators would be compensated. As the installation of the wind turbines are considered to continue, loss of production (revenue) could only be relevant for turbines who are ready to deliver electricity to the grid.

Q 4: It follows from the tender specifications clause 6 that Energinet.dk's liability in damages towards the concessionaire is limited to DKK 800 million in total. When will this cap of 800 million cease to apply to Energinet.dk's liability? In this connection to what extent the liability scenario in the third paragraph of clause 6 does the DKK 800 million apply to Energinet.dk's liability in relation to wind turbines which has already delivered 1 kWh to the collective grid? Subject to the liability scenario described in the third paragraph of clause 6 what types of losses will be covered in relation to wind turbines who have delivered 1 kWh to the collective grid?

A4: Energinet.dk's liability in damages pursuant to section 31 of the RE Act will cease to apply when the construction phase of the off shore wind farm is completed, see the answer to Q 2.When one turbine has delivered its first kWh to the grid or is considered to be "ready to deliver" after a successful completion of a partial compliance test according to Energinet.dk's document TF3.2.5. , section 31 of the RE Act does not apply any longer to that turbine. In stead payment could be relevant pursuant to section 35 of the Re Act, cf. section 34, see the answer to Q3. It follows from section 35, cf. 34, of the RE Act that Energinet.dk will make payment for any loss that the concessionaire might suffer. The types of losses which will be covered under section 35, c.f 34, are only loss of income and the calculation shall be based on the guaranteed tender price and only as long as the production from the turbines are subject to a price supplement.

Energinet.dk has issued regulations for methods of calculating the amount of lost electricity production and loss of earnings, see for further information in "Regulation E – appendix – Compensation for offshore windfarms ordered to perform downward regulation". Find the document here.

Q 5: How is the liability scenario in relation to turbines which are ready to deliver their first kWh to the collective grid but not able to do so as a consequence of Energinet.dk's non-fulfillment of its obligations re establishing the grid connection? The turbines have never delivered its first kWh to the grid.

A 5:.If the turbines are ready to deliver the first kWh and have successfully completed the Partial compliance test according to TF3.2.5, the turbines will be applicable for compensation. In the scenario where the turbines are ready to deliver their first kWh to the grid but the Partial compliance test according to TF3.2.5 cannot be completed due to the lack of grid connection, Energinet.dk will have to consider if the turbines were ready to deliver provided the concessionaire can document completion of Site Acceptance Test for the first wind turbine. In this situation the turbine will be treated as if it has delivered 1 kWh to the grid, and compensation can no longer at all be granted pursuant to section 31 of the RE Act to this turbine. Instead payment can be made pursuant to section 35 of the RE Act stipulating the rules of compensation after a downward adjustment. When the grid connection is reestablished, and is in service, the turbines in question must complete the Partial compliance test according to TF3.2.5. Further, please refer to the answer to Q3 above.

Q: As per Clause 6 of the tender conditions (and as stated in Appendix 4), the signer of the best and final offer is required to declare that the signer has complied with all requirements for repayment of subsidy which the signer has received and which the European Commission in a previous decision has declared illegal and incompatible with the EU single market. The DEA is kindly asked to confirm that this declaration is only to be made on behalf of the actual legal entity submitting a best and final offer. If this cannot be confirmed by the DEA, the DEA is asked to further specify the requirements in relation to the declaration to be made.

Furthermore, the DEA is asked to clarify if any monetary thresholds, limitations in time or any other criteria applies to the declaration to be made.

A (02.02.2015): As regards the requirement that the signer of the best and final offer shall declare that the signer has complied with all requirements for repayment of aid which the signer has received and which the European Commission in a previous decision has declared illegal and incompatible with the internal market, the DEA observes that this declaration – in line with the notion of an undertaking for the purpose of the rules on competition (and state aid) laid down in the Treaty and in order to prevent circumvention of EU state aid law – shall be made on behalf of the undertaking, which is submitting the offer. It is noted in this respect, that the European Court of Justice has ruled that all entities which are controlled (on a legal or on a de facto basis) by the same entity should be considered as a single undertaking. Accordingly, the DEA requires the declaration be made on behalf of the legal entity which is submitting the offer as well as other entities which the signer – de jure or de facto – controls or is being controlled by.

The DEA also notes that no monetary thresholds or limitations in time apply with regard to the declaration to be made.

Q: In the document submitted to the DEA following the negotiation meeting with the DEA the 9th October, Company X raised big concern in relation to the incompleteness of the available pre-investigation survey data for UXO's and addressed the need for – as a minimum – to grant extension of time with the following statement:

"It is Company X's recommendation to the DEA that any and all events related to UXO's should qualify for extension of time".

However in the final tender conditions the DEA has not fully addressed this concern stating in a (for Company X) rather un-precise formulation (page 19):

"In the event that an unexpected large number of UXOs should delay the construction of the offshore wind farm project, a time extension may be applied for"

For clarification Company X would like to know what is meant by "an unexpected large number of UXOs". The reason for this is the information provided in the UXO desk study (page 8) describing the estimated numbers of mines launched, disposed and remaining in the region around the HR3 OWF development area (see table 1 below from the desk study).

Especially the German described WWII LMB bottom minefield that over-laps the HR3 OWF development area with 67 mines remaining in it give rise to concern. They are in all probability buried in the seabed, as the sand shifts constantly. (The German mines are LMB bottom mines containing 700 kg TNT)

Type and area	Launched	Disposed	Remaining
German bottom mines, B 39, Horns Rev North	70	3	67
German anchored mines, Horns Rev South West	1,3	349	751
UK Air deployed mines in Hawthorn 1, A, Mk I-IV	180	50	130

Table 1. German and English mines launched in HR3 development area and surrounding areas.

Company X would like to stress that the pre-investigation survey data made available to date does not constitute a reliable basis for quantification of potential UXO targets within the search area. This means, there is huge uncertainty in assessing the number of potential UXO items to be detected in preparing the detailed layout in the windfarm area post the granting of concession.

Therefore Company X strongly recommends the DEA to provide the bidders with an improved decision basis in relation to the quantification of potential UXO targets.

A (02.02.2015): Section 1.3. ("Extension of time limit") in The Draft Agreement which states that the Concessionaire shall be entitled to an extension of the time-limit for commencement of the construction work (prior to 1 January 2019) and the time-limit for connection of the entire offshore wind farm (prior to 1 January 2020) in the event of delay caused by one or several of the following circumstances, including the following:

- "g) if investigations and removal of UXOs significantly exceed what should reasonably have been expected by the Concessionaire on the basis of the preliminary studies carried out by Energinet.dk".

The DEA agrees that the reference to the preliminary studies in g) does not provide sufficient clarity as to what constitutes an UXO situation that could trigger a time extension. The DEA will therefore introduce a new wording in the tender conditions which provides an objective criteria:

- "g) if the removal of UXOs exceeds the number of 2".

Anomaly:

Q: In relation to the Q&A below could you please clarify (if) the type and timing of the further investigations mentioned and (ii) the specific restrictions applicable to the 200 meter protection zone?

A (21.01.15): In summer 2015, Energinet.dk will have some additional surveys in the Horns Rev 3 area performed. The focus of these surveys will be the grid-connection, but it is planned that the anomaly will be further investigated by ROV, video and possibly divers, during these surveys. The documentation of the inspection will be made available as soon as possible.

Coordinates for pre-investigation area regarding Horns Rev 2 export cable.

Q 1: This mail refers to the English translation of tender conditions for Horns Rev 3 Offshore Wind Farm of June 23, 2014.

In this the physical area covered by the licence are described in Appendix 5 on page 54 and 55 and Appendix 6 page 64 to 66. The tables give the coordinates for the pre-investigation area, the platform and the export cable. Furthermore at page 66 is the buffer zones described. A buffer zone of at least 500 m on each side of the export cable and a buffer zone around the offshore platform of at least 1000 m. Company X has seen a mismatch between the coordinates for the HR3 area, defined in the tables, and the coordinates for the area according the GIS data supplied by the DEA (down to 40 m). What coordinates are correct?

A 1 (21.01.15): Energinet.dk has been looking into the coordinates for the HR3 area again. In the two enclosed documents (Horns Rev 3 Tables with coordinates from tender material AND Horns Rev 3 Tables with adjusted coordinates…) the coordinates from the tender material and the adjusted coordinates (only point 5 has been changed) are presented. The coordinate number 5 has been changed to provide sufficient distance to the Horns Rev 2 cable. Energinet.dk has not been able to identify the mismatch (down to 40 m) described by Company X. Please let us know if there is still uncertainty about the coordinates.

Q 2: Why the mismatch between the area defined in the tables and the GIS data

A 2: See above.

Q 3: According to the tender conditions, the wind turbines shall be within the area defined by the coordinates for the pre-investigation area and outside the buffer zone for the export cable and the platform. However placing the wind turbines on the edge of the area facing south it seems like you are very close to the Horns Rev 2 export cable defined in the GIS data. Are the GIS data for the HR2 export cable correct?

A 3: The provided HR2 As Built coordinates are correct in the sense that it is the dataset that was originally provided by the As Built cable tracking survey company in 2010. However, since the As Built coordinates differ up to 10-15m in northern direction from the As Laid and As Planned coordinates, Energinet.dk tends to regard the HR2 As Built dataset to have a relatively large uncertainty in regards of i.e. horizontal x and y coordinates.

Q 4: What are the buffer zone around the Horns Rev 2 export cable?

A 4: According to the Order of Protection of Submarine Cables and Pipeline, a safety distance of 200 meters must be kept on each side of the Horns Rev 2 cable.

Q 5: Is the buffer zone for the HR2 export cable allowed to cross the territory defined in tables for the pre-investigation area? Or is this caused by a mismatch between the GIS data and the tables in Appendix 5 and 6?

A 5: No, the buffer zone for the HR2 export cable is NOT allowed to cross the territory defined in tables for the pre-investigation area. Hence, and due to the uncertainty of the HR2 As Built dataset and in order to maintain the HR2 export cable 200m buffer zone clear, a new GIS dataset is constructed for the HR3 OWF area, see enclosed table with adjusted coordinates. The new area only differs from the previous one, at ID point 5 which has been moved further north.

Q 6: Could we place turbines on the edge of the territory defined in the table for the pre-investigation area without entering any buffer zone foe export cables or pipelines?

A 6: According to the Order of Protection of Submarine Cables and Pipeline, a safety distance of 200 meters must be kept on each side of cables and pipelines.

Procedure regarding approval of documentation for noise mitigation:

Q: The final model license for construction contains new and elaborated requirements (no 7.5 a-d) for the approval procedure during the actual pile installation (of the first 4-8 piles only, in a best case scenario). The new requirements imply several stepwise approvals by the DEA of installation documentation before the Concessionaire may be allowed to proceed the installation work as planned. Bearing in mind the substantial daily cost of an installation setup, which will be idle in case of a missing licence to operate, how long time does DEA expect for the administrative procedure for each of the prescribed approvals?

A (14.01.15): Approval by the DEA of installation documentation during the pile installation will only be demanded if the Concessionaire is unable to document that the threshold value is complied with. DEA is aware of the substantial daily costs in the installation phase and will seek to plan the process for the approvals in dialogue with the Concessionaire in order to make a decision as quickly as possible. A very important element in the preparation of the approvals is the noise prognosis and indication of the noise reducing measures planned to be used in the forecast and the measures planned to be used as reserve measures in the event that the forecast turns out to underestimate the noise level. The Concessionaire is obliged to submit these documents according to term 7.3. A thorough documentation at this point in the process will shorten the time needed for approval. Further if DEA is notified in advance it will be possible to organize the work in advance and to ensure that the necessary resources are available when needed. If the process is well prepared by the concessionaire, and all necessary information is available DEA will seek to make a decision within a few days.

Anomaly:

Q: It follows from the final model license for preliminary studies that an anomaly has been found within the territory which must be considered and encircled by a 200 meter protection zone. Could you please provide more information on the type of the anomaly and the rationale behind the protection zone?

A (14.01.15): The anomaly has been identified based on the data from the Horns Rev 3 survey. The anomaly is most likely not an object of marine archaeological interest, the object is judged to be 2-5 meters long, but it is not possible to

say more precisely what the object is. If further investigations find that the object is not of marine archaeological interest, it can be removed, according to the required safety rules, and the 200 meter protection zone can be cancelled.

Q: As regards the required publication and storage of production raw data and MetOcean data, etc. (ref. the Licence for electricity production) the Danish Energy Agency may temporarily exempt certain types of data from publication for a period of maximum 2 years. Could you please elaborate on:

(i) what type of data the DEA expects to be covered by this right?
(ii) when and under which circumstances this potential non-disclosure period of certain data will apply?

A (12.01.2015): The rule applies to all Met Ocean data covered in the section of the model licence. Having established public access as a general rule, the DEA can on request from the concessionaire decide to exempt data from publication (not storage) if the DEA finds this to be justified on the basis of concrete evidence from the concessionaire. The DEA will on a case to case basis weigh documented commercial costs against the public's interest in using the data for the development of met ocean studies in Denmark during the relevant period of maximum two years.

Q: Company X is performing a study on grid issues for Horns rev 3 in order to solve some of the uncertainties we have been facing. We are using company Y for this and the data will be made available for them.

For them to complete the study timely we need the following data for the substation by the End of week 46:

1. **The insulation coordination study performed by Energinet.dk should be made available for the bidders and should be completed in August 2014 (hence Q&A page at ens.dk).**
2. **Electrical data for the main transformers, e.g. vector group, ratings, voltage ratio and impedances.**
3. **Electrical data for the auxillary tranformers, e.g. vector group, ratings, voltage ratio and impedances.**
4. **For the export system and on-shore grid connection we need the following data by the End of week 47: Single line diagram for the export system and on-shore grid connection including main components electrical data, e.g. on/off-shore export cables, grid transformers and reactive power compensation.**

A (05.11.2014): Ad. 1 Results from the insulation coordination study is made available in the document "Results from the insulation coordination study on Horns Rev 3 grid connection".

Ad.2: Typical data used for the insulation coordination study is supplied in the document "Data used in the insulation coordination study for the Horns Rev 3 grid connection".

Ad. 3: Data cannot be supplied as this still needs to be worked out. Expected vector group is indicated in the "HRC-enstregsdiagram_2014-10-31.pdf".

Ad. 4: A single line diagram of the connection is provided in the document "HRC-enstregsdiagram_2014-10-31.pdf".

Q: Is it possible that the EIA scoping and EIA methodology reports can be made available (along with the already published EIA documents)?

A (03.11.2014): Please find enclosed the scoping report (in Danish) which applies to the onshore installations only. A similar scoping report for the marine part of the project was never completed. Please also notice that after the scoping report is completed new requirements may arise. If you have specific questions regarding the nature of the scoping procedure you can contact the Nature Agency.

Q: Please confirm if, assuming necessary survey activities have been performed, and the results of such survey have been properly assessed and acted upon, that temporary installation/construction workings may be undertaken outside the actual HR3 site location (e.g. anchoring of installation vessels) should this be considered desirable/necessary? If any restrictions existing in this connection then please state such.

A (03.11. 2014): In general it is possible to anchor vessels where ever needed as long as it is temporary and in respect of any restrictions existing on the maps. Normal rules for anchoring apply.

Q: Are there any requirements on certifying the concession owners supply?

If yes:

Please specify extent of the certification for each of the packages.

- **Will ENDK handle the certification?**
- **Will ENDK handle the certification of the equipment handed over to concession owner?**

A (03.11.2014): ENDK makes no certification requirements and will not handle any certification requirements on behalf of the WFO. The WFO shall secure that all wind turbines and related equipment has an approval from The 'Energy Agency's Secretariat for the Danish Wind Turbine Certification Scheme'. Wind turbines including foundation to be installed, maintained and serviced in Denmark or in Danish waters must be certified according to the requirements in the Danish Certification Scheme. The rules and procedures are described in The Danish Energy Agency's Executive Order on The Technical Certification Scheme for wind turbines no. 73 of January 25th 2013 and the appropriate guideline. (http://www.wt-certification.dk/)

Q: Is it possible to turn the J tube entry (Bell mouth) in order to optimise the length of the array cables? If the orientation is not optimised, it will result in longer cables and inconvenient cable loops on the seabed making the installation more difficult.

A (03.11.2014): As stated previously in a Q&A on August 7 it will unfortunately not be possible to change the orientation of some of the J-tubes in spring 2015. The reason for this is that the construction of the jacket has been ongoing for 2-3 months by spring 2015. Furthermore, the detailed design of the jacket will have been verified by DNV and changes to the design will require a new verification which might delay the finalization of the jacket construction.

Attached is a revision of the design drawing "Guides for J-Tubes".

Q: As regards the export cable for Horns Rev 2 we have noticed a minor discrepancy between the GIS data (as built positions) made available in the email from September 2 and the GIS data previously received (in June 2014) as part of the "GIS data available on request" procedure. Please clarify which set of data should be applicable in relation to keep the 200 m cable protection zone?

A (03.11.2014): Due to inherent uncertainties within the as built positions (due to navigation uncertainties, underwater positioning, the used cable detection system etc.), the 200m cable protection zone is to be calculated from the GIS data previously received (in June 2014).

Q: In the tender conditions it is mentioned that the costs for costs of preliminary studies and EIA are not expected to exceed DKK 95 million incl. VAT.

Clarification questions

A. Why are VAT included in these costs?

B. What are meant by "not expected to exceed"? I assume that the DEA/Energinet.dk at this point in time should know what costs has been endured on preliminary studies?

A (16.09.2014):

Ad. A.

Unfortunately there has been a miscommunication with regard to costs of preliminary studies and EIA for Horns Rev 3. The maximum costs are DKK 95 million excluding VAT.

With regard to payment of any VAT and subsequent refunds the general rules on VAT apply.

Ad. B.

As far as the wording is concerned ("not expected to exceed"), this reflects the fact that the DEA is still undertaking some preliminary studies, including on underwater noise. The expectation though still is that the costs will not exceed 95 million excluding VAT as announced in the preliminary tender material.

Q: To our understanding the facility owner can only take the responsibility towards the system grid code compliance – including understanding the influence of the relevant grid design data: offshore substation, export cables, onshore grid, etc – if all relevant system design data are given to all Prequalified Tenderers in due time for their detailed design and thus in reasonable time prior to final bid. We would request the TSO answer to how this will be handled prior to preliminary bid.

Surplus comments: As the WFO has no information on how the TSO will operate the onshore AC grid, the offshore export system, nearby grid components, back ground harmonics of the grid, etc,, and all these issues will have a major impact on the possible harmonics on the grid, the reference to the grid code and the responsibilities is not sufficient. Based on the above mentioned issues, it will be not be possible to have the overall system responsibility and undertake the system harmonics analysis as we have no data from the system behind the offshore 33kV busbar.

A (16.09.2014): Below a plot of the positive sequence impedance as seen from the 33 kV busbar HRC into the 220/33 kV transformers is supplied. The plot is based on calculations in PSCAD with the current design setup for the 220 kV transmission grid (parameters may change as more information is available on transformers, cables, etc.).

Positive and negative sequence impedances are identical. Zero sequence impedance will be infinite due to the delta winding on the low voltage side of the transformer.

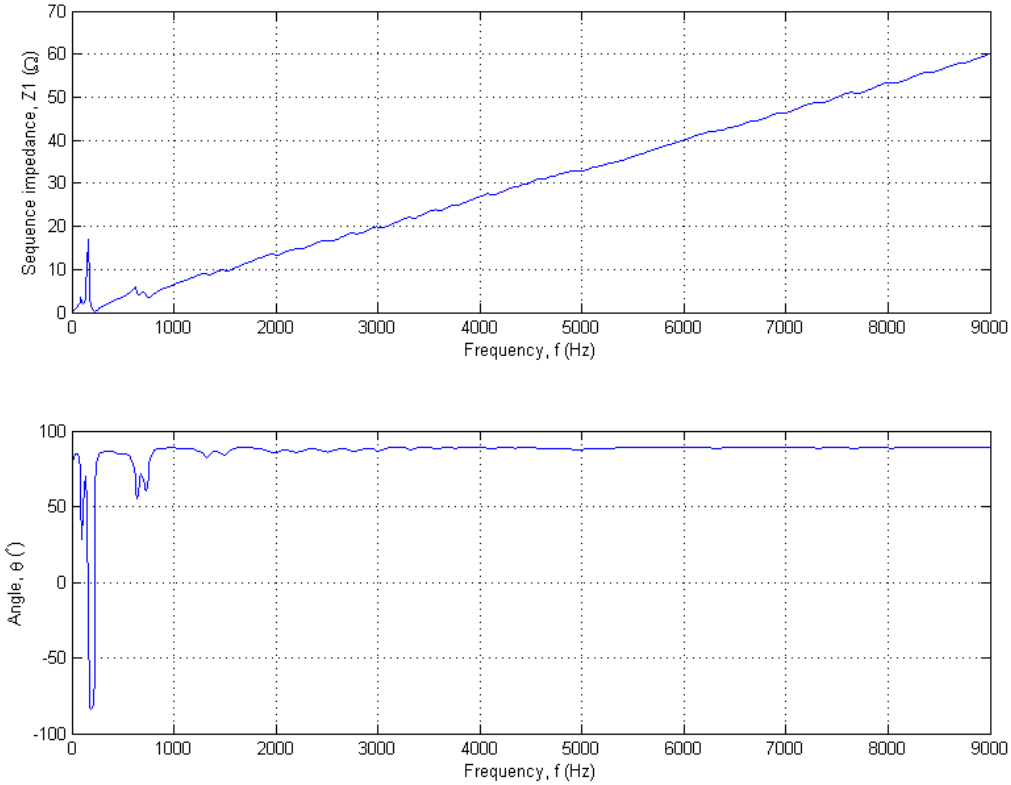


Figure 1 Positive sequence impedance and angle seen from the 33 kV busbar at HRC.

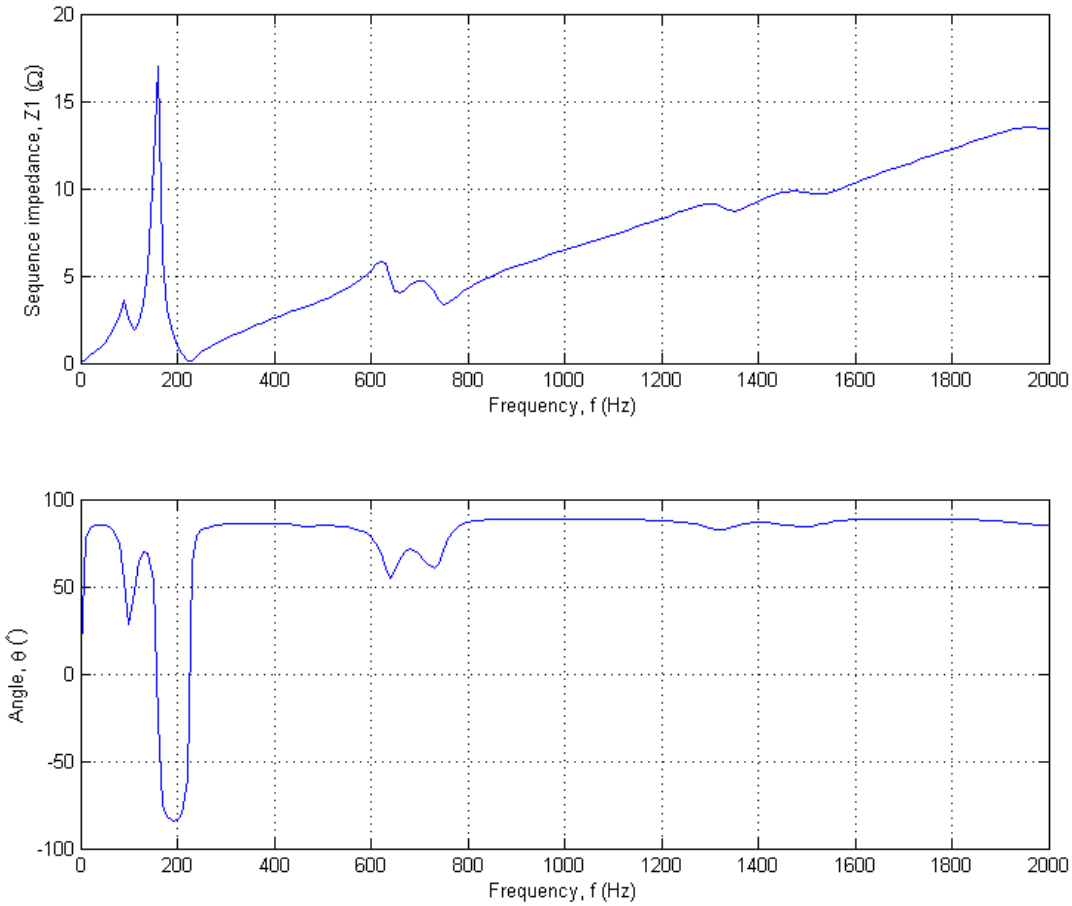


Figure 2Positive sequence impedance and angle seen from the 33 kV busbar at HRC. Cropped to 0-2000 Hz.

Q: How can ENDK order the switchgear circuit breakers for the 33kV switch gear, as this will depend on the design basis of the wind farm developer? Maximum breaking current of the individual strings will have a significant impact on the detailed protection system design of the 33kV busbar. Thus all potential tenderers will immediately need the design basis on which ENDK will base the order of the 33 kV circuit breaker.

A (16.09.2014): Please find enclosed a brief note that summarizes the decisions made so far regarding switchgear as well as the final technical requirement following the hearing before the summer vacations.

Horns Rev 3 MV Switchgear

Technical Requirements

For your information the minister on September 4 formally required Energinet.dk to purchase the switchgear. The formal letter (Brev til Energinet.dk) from the minister is also enclosed for your information (in Danish only). In the letter the minister emphasizes that the temporary purchase is necessary as a means to ensure the fair treatment of all bidders and requires Energinet.dk to ensure transparency and a high degree of information sharing in order to retain confidence in the process.

Q: With reference to the Model licence for the construction of an electronic electric power generating plant Horns Rev 3, term no 11.2, please clarify whether the Danish Transport Authority, as part of the prerequisites for

issuing the '§67a certificate' for the project, will require a certain installation sequence of turbines. I.e. whether turbines in corners and the periphery of the wind farm shall be installed before other turbines (irrespective of the final height and siting of the wind turbines)?

A (16.09.2014): Without knowing the specific layout it is not possible beforehand to establish precise guidelines with regard to the installation procedure. As a general rule, though, the concessionaire is required to make sure that aviation safety is maintained regardless of the layout and installation procedure chosen by the concessionaire. The Danish Transport Authority is prepared to discuss a variety of solutions with the concessionaire on the basis of a specific application and adjacent specific project plan. For instance in relation to the construction of the Anholt Offshore Wind Farm the Danish Transport Authority and the concessionaire (DONG Energy) reached an agreement that led to the establishment of the farm in steps which included dividing the farm into triangular areas where the maximum distance between the medium-intensity obstacle lights on the perimeter was 5 km. In short, the concessionaire first installed turbines in the periphery and thereafter in the center.

Q: The apprentices, should that in particular be young people being a part of a public training in certain skilled work, as examples electrician, high voltage electrician, process worker monitoring the wind farm and similar or could it also be skilled engineers within other crafts as offshore wind, civil engineers to learn more on electrical engineering; mechanical engineers to be specialized in turbine technology etc.?

A (16.09.2014): No. The apprenticeships are an essential part of the Vocational education and training-program. Most of the pupils are under the age of 25. The apprenticeships are not for people already educated.

Q: Are these positions only thought of as permanent positions or as permanent educational positions?

A (16.09.2014): An apprenticeship is covering the training period or a part of the period. If the company wants to employ the pupil after the graduation, the employment will be based on the ordinary agreements.

Q: Could these apprentices also be manned by e.g. Company (WFO) trainees, who are in an educational loop within the company?

A (16.09.2014): No

For your information Cedefop (European Centre for the Development of Vocational Training) has developed a short description of "Vocational education and training in Denmark" (http://www.cedefop.europa.eu/node/11832)

Please consult chapter 3 which provides a basic introduction to the program.

Tender material

Q: Text on page 58 (clause 1.6) and on 75 (clause 3.2.2) of the tender material is unclear. Is it allowed for an installed capacity up to 410 MW to produce as long as not more than 400 MW capacity at connection point is fulfilled, even if production will be increased?

A (01.09.2014): With the reference to Appendix 6 – section 3.2.2, the maximum installed capacity (connected at the 220/33 kV transformers) is at any time max 400 MW This is for instance maximum 40 times 10 MW turbines. However, if the CO decides to erect 41 turbines (each of 10 MW), and one or more turbines is out of service due to maintenance etc, or the calculated losses in the 33 kV radials is 10 MW (will be verified based on the actual design of the Wind Park), then the extra turbine can be put into service, as long as the general rule of maximum installed capacity of 400 MW is not exceeded (number of turbines x capacity of each turbine minus losses in cable radials).

The following examples describes the principles:

Case 1: 41 turbines, each with a capacity of 10 MW, in service and with a verified losses in the 33 kV cable radials of 10 MW
Maximum installed capacity at the transformers: 41 x 10 – 10 = 400 MW and is thus acceptable for Energinet.dk

Case 2: 41 turbines, each with a capacity of 10 MW, in service and with a verified losses in the33 kV cable radials of 5 MW
Maximum installed capacity at the transformers: 41 x 10 – 5 = 405 MW and is thus NOT acceptable for Energinet.dk.

Case 3: 40 turbines, each with a capacity of 10 MW, in service and with a verified losses in the 33 kV cable radials of 5 MW
Maximum installed capacity at the transformers: 40 x 10 – 5 = 395 MW and is thus acceptable for Energinet.dk.

Case 4: 40 turbines, each with a capacity of 10 MW, in service and with a verified losses in the 33 kV cable radials of 5 MW. One of the turbines is taking out of service due to maintenance – turbine no. 41 is put into service
Maximum installed capacity at the transformers: 40 x 10 – 5 = 395 MW and is thus acceptable for Energinet.dk.

Tender material

Q: In regards to page 63 (clause 3.4) of the tender material. A buffer zone of only 2-4 km will expose the project to a risk of significant production losses if the anticipated HRV4-5-6 projects are materialised. HRV03 should be entitled to compensation for such losses or the buffer zone should be increased to 10 km. A buffer zone of only 2-4 km will expose the project to a risk of significant production losses if the anticipated HRV4-5-6 projects materialise. HRV03 should be entitled to compensation for such losses or the buffer zone should be increased to 10 km.

A (01.09.2014): As part of the negotiations in the tender procedure bidders are free to propose new rules on this. In this context the bidder is required, if possible, to document the estimated effect on costs.

Tender material

Q: On page 5 of the tender material it is unclear whether the requirement to undertake joint and several liability has any effect on the option with respect to using Parent Company Guarantee as partial security for the performance bond and decommissioning guarantee. Please clarify.

A (01.09.2014): The requirement to undertake joint and several liability has no effect on the Parent Company.

Tender material

Q: In the tender material on page 6 there seems to be an inconsistency regarding length of the performance bond and length of the guarantee obligation since the guarantee obligation will terminate upon having used DKK 1bn whereas the performance bond shall last until 1 kWh has been produced. Please clarify.

A (01.09.2014): The “inconsistency” is intentional. The obligatory guarantee is designed to incentivize the developer to start work immediately. The reason that it is terminated upon the conclusion of the investment of the first DKK 1bn as this amount is viewed as a financial point of no return. From this point it is highly unlikely for the project to stop. The need for an expensive guarantee/incentive is therefore no longer existent. However, as the farm is not yet established the performance bond is of course still of relevance as the farm is not established yet.

Tender material

Q: In the tender material on page 56 it is not clear who can complain or who has a legal interest. It should be possible to exercise the license for preliminary studies immediately after it is issued, the wording: “*The permission may not be exercised prior to the expiry of the deadline for complaints”* should be removed.

A (01.09.2014): If it should be possible to exercise the license for preliminary studies immediately after it is issued The Danish Energy Appeals Authority would not have the possibility to consider matters relating to suspensory effect.

Regarding who can complain or who has a legal interest is a matter for The Danish Energy Appeals Authority when the authority receives a complaint. According to the practice by The Danish Energy Appeals Authority the concessionaire shall be considered as a party. Note that further information regarding the practice from the The Danish Energy Appeals Authority can be found on www.ekn.dk.

Q: Guarantor of the DKK 100 million on demand guarantee is required to have an A- rating. The text section on page 25 and 40 of the tender material indicates that this shall also apply to Parent Company Guarantees which is contrary to the Parent Company Guarantee template, which does not mention rating requirement. Please confirm that such requirement will not be introduced to the Parent Company Guarantee.

A (01.09.2014): Such requirement will not be introduced to the Parent Company Guarantee covering the additional DKK 200 million which are due after four months when the amount is increased to a total of DKK 300 million.

Tender material

Q: The specification on page 25 of the tender material does not seem to provide adequate protection for the Concessionaire against losses on contracts for the switch gear. Please consider to include compensation for documented loss on the switch gear contracts which have to be entered into at an early stage to mitigate risk and costs for bidders if tender is abandoned.

A (01.09.2014): Legislation does not allow for compensation for documented loss on the switch gear contracts.

As part of the negotiations in the tender procedure bidders are free to propose new rules on this. In this context the bidder is required, if possible, to document the estimated effect on costs.

However, there will be little risk of lapse of the concession after the conclusion of the concession contract. Prior to the award of the concession, the political acceptance of the settlement price for Horns Rev 3 will be obtained. The only remaining risk will be linked to appeals against the construction license.

Tender material

Q: Please confirm that "expenses" (page 38 of the tender material) includes internal costs (invoices) as well and not just external costs.

A (01.09.2014): Expenses include all documented expenses - internally as well as externally.

Q: The fact that some of the site is located outside the 12nm border zone may imply considerable administrative burdens and costs related to customs and VAT implications. Please consider to ensure that administrative requirements in this relation can be handled efficiently by exemptions or other arrangement with the relevant authorities.

A (01.09.2014): As a consequence of the tax regulations of the European Union all transports of material leaving the zone to the site must be reported to the Danish customs authorities. In order to reduce the administrative burden the Danish tax authorities have agreed to allow the concessionaire to use a simplified customs procedure called “Ansøgning om bevilling til hjemstedsordning, eksport (periodeangivelse)”, blanket 13.023. This procedure reduces the reporting obligation to a minimum. Please contact the customs authorities (“Toldvejledningen”) on +45 72 221 212 for more information on the simplified procedure.

Tender material

Q: In regards to page 59 (clause 1.9.) of the tender material, "Expected" in 1.9 should be changed into an obligation so that the requirements are aligned.

A (01.09.2014): The wording ”expected” has no effect on the right to receive the approval, but relates only to the time limit of 2 months. The wording reflects difficulties in estimating beforehand the exact amount of time needed for processing the application, including the time needed for the hearing of other authorities.

Tender material

Q: On page 72 (clause 13.4) of the tender material “Expect” should be changed to “shall ensure”.

A (01.09.2014): According to the minister's order to Energinet.dk "Energinet.dk shall ensure commissioning of the transformer platform no later than 31 December 2016". This date is also inserted in the draft concession agreement and is the basis for the rules on payment of any damages due to delays in the construction of the grid connection.In the spirit of cooperation Energinet.dk is however willing to provide access to the platform for pulling-in of 36 kv cables earlier than 1 January 2017. This wording "expect" is therefore correct.

Q: There is an obligation to comply with ENDKs rules at any given time (in the Danish version). English version of the power production permit says "at the time in question" indicates a static time rather than at any given time. Horns Rev 3 can only guarantee to abide by existing rules as any future rules by nature are not known.

A (01.09.2014): There is an obligation to comply with Energinet.dk's regulations on grid connection at any given time. Energinet.dk has the right to change its technical regulations if it is required for the sake of maintaining security of supply. Before Energinet.dk makes any changes, though, Energinet.dk always conducts hearings that allow companies to present any reservations.

Tender material

Q: The wording on page 64 (Appendix 6 clause 4.3) of the tender material allows DEA to request the guarantee at any time during the first 12 years which is probably not the intension as this would increase costs for the Horns Rev 3 project. Please clarify that the request cannot be made "earlier than" and not "no later than".

A (01.09.2014): The ability to request guarantees earlier than 12 years after delivery of the first kWh to the collective grid will be exercised only in exceptional situations where it can be questioned whether the concessionaire can and will live up to the obligation to decommission the wind farm.

As part of the negotiations in the tender procedure bidders are free to propose new rules on this. In this context the bidder is required, if possible, to document the estimated effect on costs.

Tender material

Q: In Appendix 5 it is stated:

"As part of the preliminary surveys, various degrees of risk have been documented for occurrence of UXO's in the area of preliminary surveys. It is recommended that various relief measures be undertaken to reduce the risk of encountering UXOs in the areas classified as an unacceptable risk."

Clarification question:

1. **Who are to pay for the removal of UXO's found?**
2. **Who are going to take care of the removal of UXO's found?**
3. **When are the entity responsible for the removal of UXO's to be notified?**
4. **As company is concerned about potential impact on the project time schedule, how long time could it take to remove UXO's**?

A (28.08.2014):

Ad 1) All cost that relate to removal of UXO has to be held by ….. (company).

Ad 2) Removal of UXO can be done by Admiral Danish Fleet although the … (company) .. will be charged for the removal of UXO. Admiral Danish Fleet will charge a time based fee.

Ad 3) If UXO is found during the survey the .. (company) .. must contact Admiral Danish Fleet (SOK +45 8943 3099) or Maritime Surveillance Centre North (MOC N +45 9922 1600).

Ad 4) The time used for removal of UXO depends on the amount of UXO, type of UXO, weather and water conditions and the water depth where the UXO are located.

Q: According to our understanding of RE Act section 31. (2-3), Energinet.dk incurs strict liability for the electricity producers' consequent loss if Energinet.dk do not meet its deadlines and conditions in relation to grid connection of Horns Rev 3 (ensure the possibility of grid connection from 1 January 2017).

However the tender conditions, page 29, mention that Energinet.dk's liability in damages is limited to DKK 400 million in total. The liability in damages is stipulated in section 31(2-3) of the RE Act.

What does this imply?

A (28.08.2014): Yes Energinet.dk shall compensate objectively justified losses which the Concessionaire might suffer due to Energinet.dk's non-compliance with time-limits and conditions for connection to the grid of the offshore wind farm, including time-limits for energisation. Energinet.dk shall ensure the possibility of grid connection from 1 January 2017. This liability in damages is limited to DKK 400 million in total. The liability in damages is stipulated in section 31(2-3) of the RE Act and the limitation of the amount is stipulated in the "Draft agreement regarding the construction and connection to the grid of an electric power generating plant, Horns Rev 3 Offshore Wind Farm (the concession agreement")in section 6 (Damages for non-compliance with obligations regarding grid connection).

MetOcean

Q: Can DEA/energinet.dk please provide the certification report and the answer letter compiled by Orbicon/DMI for the metocean studies for HR3?

Can DEA/energinet.dk please check whether table 7.5 in the main report or table 9.2.6 in the Appendix is correct? Marked in the attached file.

Can DEA/energinet.dk please check and confirm, that all appendices to the metocean report have been updated according to certification requests?

A (28.08.2014): Orbicon/DMI has updated the MetOcean report according to the questions and compiled a file containing both certification report and an updated MetOcean report. All relevant appendices have been updated according to certification requests. Hence, the compiled file may be downloaded from the Energinet.dk homepage see:

Metocean	Published/ expected published	Download data
Metocean Study Report and Certification Report		HR3_MetOcean_Certification.pdf
Metocean model data		Metocean model data

Q: ***"The Concessionaire may construct an offshore wind farm with a capacity of maximum 400 MW measured at the time of connection to the grid, which is defined as the 33 kV side of the 220/33 kV main transformer of the Energinet.dk's transformer platform. The facilities for transmission of power to shore (platform and export cables) are designed for a maximum power of 400 MW. Although up to 410 MW capacity may be installed, there must at no time be more than what corresponds to 400 MW installed power at the same time. This means that any back-up wind turbines may not be used to ensure a larger production from the wind farm in general. The connection point for the offshore wind farm is Point of Common Coupling (PPC). For Horns Rev 3 the PCC is defined at 220 kW level."***

Does this actually mean that we allowed to connect 410 MW of turbines (e.g. 41 times 10 MW turbines) to the 33 kV side of the 220/33 kV main transformer but only produce 400 MW of power at the 33 kV side of the 220/33 kV main transformer at any time?

A (28.08.2014): No, with the reference to Appendix 6 – section 3.2.2, the maximum installed capacity (connected at the 220/33 kV transformers) is at any time max 400 MW – which, in the given example means, maximum 40 times 10 MW turbines. However, if the CO decides to erect 41 turbines (each of 10 MW), and one or more turbines is out of service due to maintenance etc, or the calculated losses in the 33 kV radials is 10 MW (will be verified based on the actual design of the Wind Park), then the extra turbine can be put into service, as long as the general rule of maximum installed capacity of 400 MW is not exceeded (number of turbines x capacity of each turbine minus losses in cable radials).

The following examples describe the principles:

Case 1: 41 turbines, each with a capacity of 10 MW, in service and with a verified losses in the 33 kV cable radials of 10 MW
Maximum installed capacity at the transformers: 41 x 10 – 10 = 400 MW and is thus acceptable for Energinet.dk

Case 2: 41 turbines, each with a capacity of 10 MW, in service and with a verified losses in the33 kV cable radials of 5 MW
Maximum installed capacity at the transformers: 41 x 10 – 5 = 405 MW and is thus NOT acceptable for Energinet.dk.

Case 3: 40 turbines, each with a capacity of 10 MW, in service and with a verified losses in the 33 kV cable radials of 5 MW
Maximum installed capacity at the transformers: 40 x 10 – 5 = 395 MW and is thus acceptable for Energinet.dk.

Case 4: 40 turbines, each with a capacity of 10 MW, in service and with the verified losses in the 33 kV cable radials of 5 MW. One of the turbines is taking out of service due to maintenance – turbine no. 41 is put into service
Maximum installed capacity at the transformers: 40 x 10 – 5 = 395 MW and is thus acceptable for Energinet.dk.

Q: In Appendix 6, clause 5 (Financial terms and conditions) it is stated under point 3.

"Price supplements shall not be granted for production in hours when the spot price is not positive. This condition, however, shall not apply for more than 150 hours per year"

Does this imply that any production in hours where the spot price is not positive will be deducted from the 50.000 full load hours (20 TWh)

A (28.08.2014): No. Electricity, generated in hours where the electricity price is not positive, will not be included in the calculation of the eligible production of 20 TWh (as long as the 150 hours limit is not exceeded).

MetOcean

Q: "Energinet.dk has earlier provided MetOcean data (waves, wind and current) for Horns Rev 3. Does these metocean data contain DONG Energy's measurements of wind and waves from Horns Rev 2 as described below?"

A (15.08.2014): The Metocean study report compiled by DMI for Horns Rev 3 are based on analyzed model output, where observations have been applied for validation purposes. Hence, the metocean data from DMI does not directly contain DONG Energys measurments of wind and waves from Horns Rev 2.

Q: Parent company A has a long-term credit rating of A-by Standard & Poor's and Fitch and A3 by Moody's. Is it sufficient to use parent company A as guarantor?

A (11.08.2014): The winning tenderer must provide a guarantee for penalty for defective performance.

Initially the guarantee must be of DKK 100 million. The guarantee must be provided by a recognized financial institution, insurance company, or similar, which has been accepted by the Danish Energy Agency in advance. The guarantor must have a long-term credit rating of at least A- (Standard & Poor's and Fitch) or A3 (Moody's) or equivalent rating from another recognised rating agency.

Four (4) months after the conclusion of the Concession Agreement the guarantee must be increased to DKK 300 million. The additional DKK 200 million may either be provided as a guarantee from a recognised financial institution, insurance company, or similar, with a long-term credit rating of at least A- (Standard & Poor's and Fitch) or A3 (Moody's) or equivalent rating from another recognised international rating agency, or as parent company guarantee.

By "recognised" financial institution, insurance company, or similar is understood a reputable financial institution etc. that is independent from the winning tenderer.

In regard to the parent company guarantee it is not required that the parent company has a (specific level of) credit rating.

Specific requests for approval as guarantor will not be answered at this stage of the process.

Q: Please clarify text in the EIS concerning the project's impact on military's ability to undertake different kind of training exercises.

A (30.06.2014): When it is stated in part 4 of the EIS that the project will not limit the military's use of training facilities close to the project area, it is related to shooting activities while the last part of the sentence ("or the use of the near shore areas for exercises with low flying airplanes") refers to the airplane activities taking place in the inner parts of the near shore military areas.

When it is stated in part 0 of the EIS that the offshore wind park might limit the areas accessible to the air force's exercises with low flying airplanes, it refers to the outer parts of the military areas (in particular if the offshore farm is placed furthest to the East).

Q: As far as the position of the military area is concerning we have received GIS data demarcating the exact area, cp. map. from HR3-TR-023 v2 page 10:

helicopter operations).

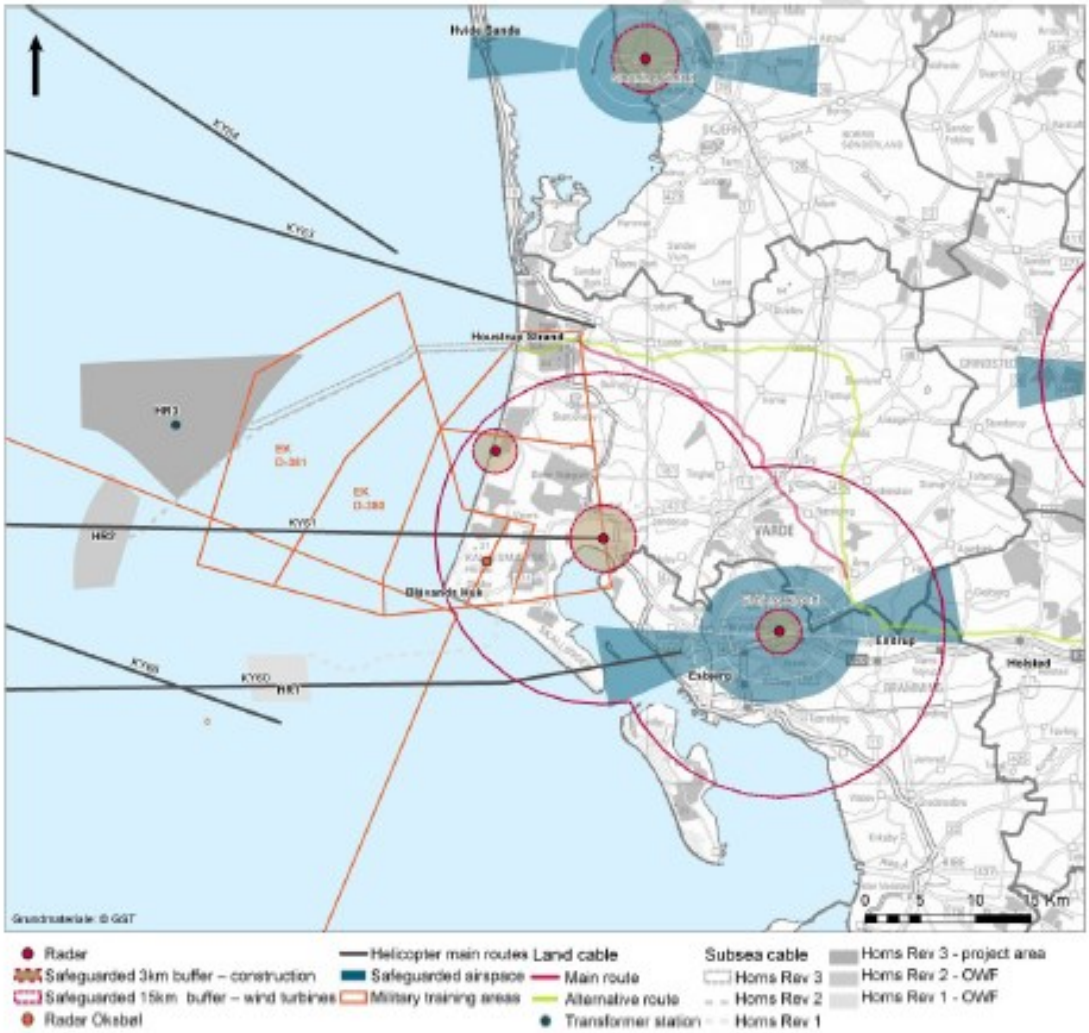
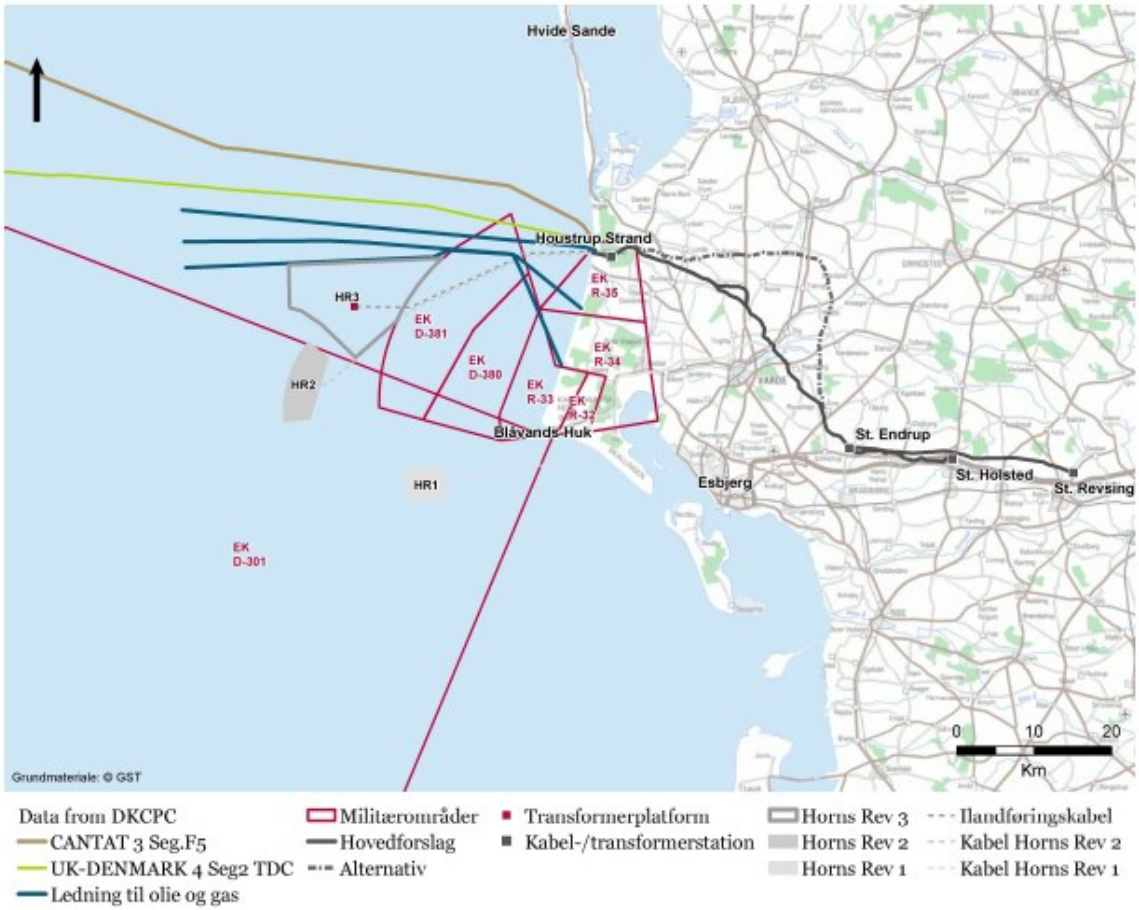


Figure 4.1.Overview of air traffic interests at Horns Rev 3.

However, in the EIS we find a different map of EK D-381, where the area does not overlap with the pre-investigation area for Horns Rev 3, cp. map from Part 2 – The Marine Environment – page 83:



Which demarcation of EK D-381 is the correct one?

A (30.06.2014): Map number two is the correct one.

Tender material

Q: Does the timeframe in the preliminary tender material for delivering platform related information and equipment to Energinet.dk make room for any flexibility?

A (24.06.2014): The DEA and Energinet.dk are open to finding practical solutions that can be adjusted to all tenderers.

The most critical part for the future concessionary is to deliver the 33 kV switch gear on time and it is thus not possible to postpone the deadline (late October 2015) significantly. This is because the switch gear has to be installed and integrated while the topside of the platform is onshore.

However, if Energinet.dk, as expected, will be ordered by the minister to purchase the switch gear, then it will no longer be of concern of the concessionary. In that case, the concessionary will take over the switch gear contract when they obtain the concession.

SCADA and control panels should be delivered by late October 2015 to the yard as is stated in the preliminary tender material. If necessary, there is room for some adjustments.

Cable grid to the Wind Turbines cannot be changed from the already decided 33 kV.

Clarifications in regards to the information about the concessionary's equipment (due June 2015) can - if need be - be postponed to August 2015. This mainly concerns issues with relation to interfaces like the need for power supplies etc.

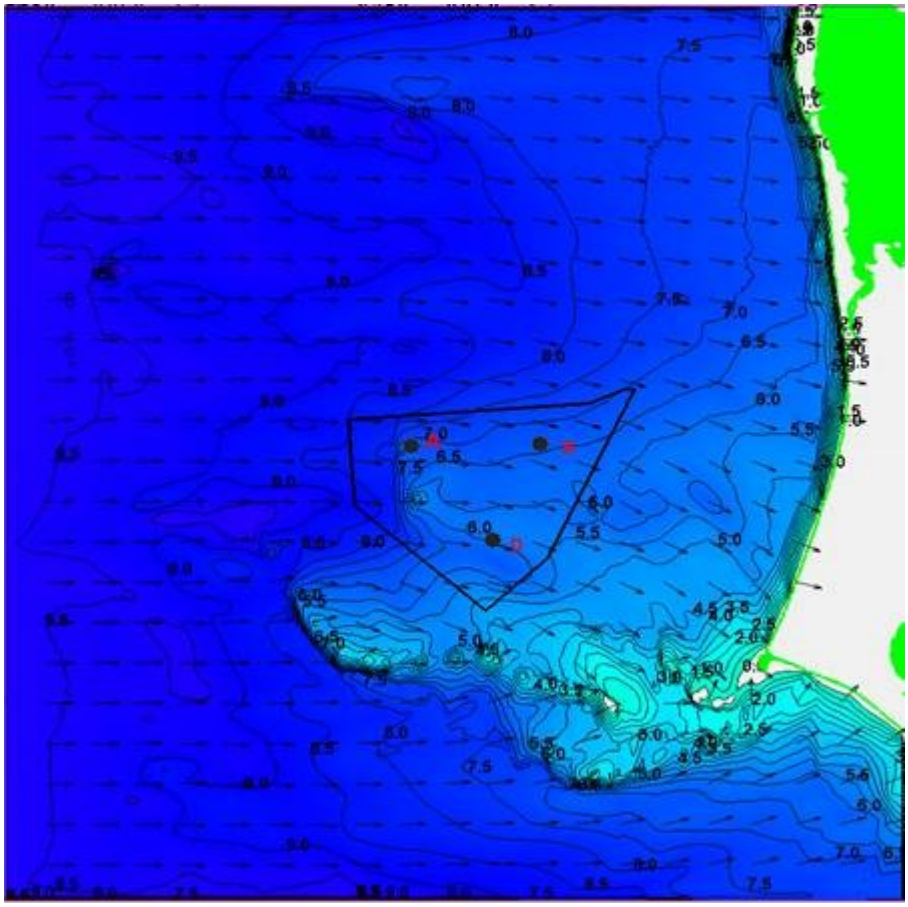
Q: For Horns Rev 3 we have noticed that the map projection WGS84 UTM zone 32 is applied (e.g. in the Technical Project description, all 2013 survey data, etc.)

However, the standard map projection in Denmark is UTM/ETRS89 zone 32 and 33 - See following link to the website of the Danish Geodata Agency (http://eng.gst.dk/geodesy-surveying/reference-systems/)

Could you please explain the reason for not using the standard Danish map projection for Horns Rev 3?

A (20.06.2014): The reason for the application of the global geodetic reference frame WGS84 is that it is the most suitable for offshore GPS/GNSS positioning. ETRS89 is the European realization of WGS84, and the lateral difference between the two reference frames is negligible.

Q: As expected, there is a difference in significant wave height over the HR3 site – see e.g. figure below.



It would seem however that location A, B and D (as reported in the Horns Rev 3 Offshore Wind Farm Metocean Design Basis (MDB) – Oct 2013 – see: DATA) do not adequately reflect the wave characteristics over the total HR3 area.

A (19.06.2014): The locations were chosen to represent offshore and onshore conditions and conditions close to and more distant from the main reef, and as such they describe the main characteristics of wave conditions over the area. Resolving the finer scale characteristics in an area with complicated bottom bathymetry, such as Horns Rev, require high resolution wave modelling, such as the one used by the questioner or described in HR3-TR-035 Hydrology and water

quality.

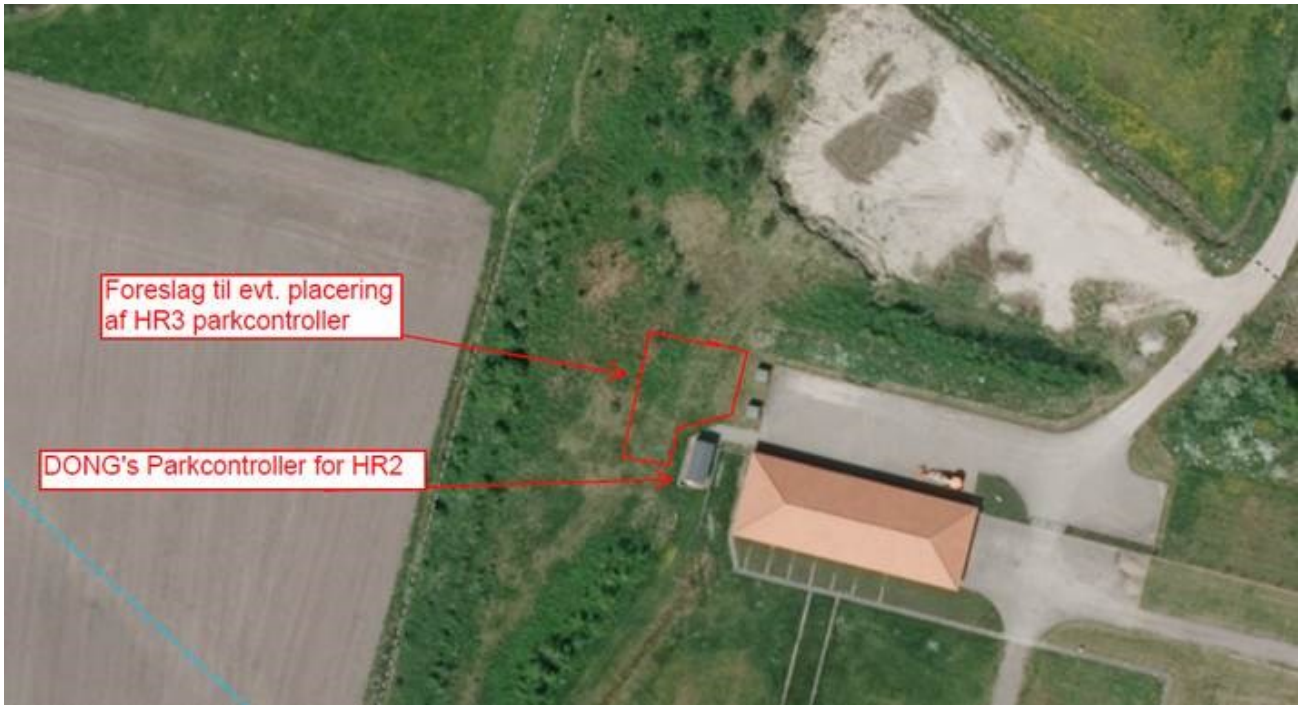
Q: Additionally, from our model, we see that we have breaking waves occurring over certain locations at HR3 and therefore are a little in doubt as to the max. wave height criteria stated in the subject MDB (- see section 6.8.3 - : Max wave height = 1.6*Hs) – We would have thought that maybe 0,78* waterdepth criteria would normally have been applicable. I.e. whereas the consultant responsible for the MDB bases the assumptions relative to the max wave heights, we would expect it to be Waterdepth*0,78 which gives significantly higher waves.

A (19.06.2014): First, we note that calculation of maximum waves has been refined in the modified edition of our report (Metocean Report for Horns Rev 3) presently underway. Second, on the three positions we have no wave breaking according to the 0.78*water depth criterion, and thus our message is that shallow water breaking is not the typical thing to occur, even during a '50-year event'. Localized shallow water wave breaking may occur, as the question indicates.

Q: If the Concession is awarded to us, we will apply for constructing an onshore SCADA building near ENDK onshore substation in Endrup beside the SCADA building for Horns Rev 2 project. Below is inserted a picture illustrating Endrup Substation, where The red circle marks Horns Rev 2 SCADA building and the Orange Circle illustrate where we intend to build the SCADA building for the Horns Rev 3 Project. If ENS or ENDK has any obstruction against this intention of building an Onshore SCADA building for HRV03 near ENDK substation as illustrated at below drawing, we expected that ENS or ENDK will as soon as possible give us notices of obstruction.

The Purpose of the onshore SCADA building is to get communication/measuring access to the PCC point (defined in HR3 meeting at ENS -11.02.2014 – on grid code compliance) the rented fibres and communication to the outer world.

A (19.06.2014):Energinet.dk can accept that the Concessionaire build a SCADA building at substation close to ENDK at substation Endrup. See picture below. Final location is to be agreed with Energinet.dk. The Concessionaire is responsible for obtaining all permission to build the building.



Q: According to Horns Rev 3 & Kriegers Flak platform interface and MV switchgear – Comments (Doc. no.: 13/93456-608), ENDK state that the substation J-tube will be minimum 3 m which is good. Furthermore ENDK describe that ENDK has made and assessed that a J-tube with diameter of 315 mm is sufficient for a 630mm2 33-kV 3 phase cable with and outer diameter of app. 170 mm.

The size proportion in size between the J-tube inner diameter (315mm) and the out cable diameter at 170mm is 1,85 times. The proportion (1,85) meets concerns and is smaller than our general requirements which is that the J-tubes inner diameter shall be minimum 2,5 times the outer diameter of the array cable.

With this information will ENS / ENDK reconsider the size of J-tube and increase the size of the J-tube? If no will ENS / ENDK publish the assessment of the size of J-tube and potential Array cable size?

A (19.06.2014): Horns Rev 3: The size of the J-tubes will not be changed for Horns Rev 3 as the J-tube only has one bending with a minimum radius of 3000 mm.

It is considered by Energinet.dk, that an inner diameter of the J-tube of 2.5 times the cable diameter is “a nice to have” requirement, and in light of the two additional conditions:

- a minimum bending radius of the J-tube of 3000 mm, thus with a good margin to the expected minimum bending radius of a Ø 170 mm core cable (diameter of a largest design of 3x630 mm²), and

- only one bend of the J-tube in one plane, a J-tube with inner diameter of around 2 times the cable diameter, and even 1.85 times, is considered to be sufficient.

The final cable design choice, with the given J-tube properties, is up to the Concessionaire.

We are open for increasing the size of the J-tubesat the last 1-2 meters at the bell mouth end to accommodate for a larger bell mouth than for 14” tube with inner diameter of 315 mm. This can be discussed and decided in spring 2015 when the concessionaire has been appointed. The type and size of belle mouths can also be decided upon in spring 2015. Any cost related to changes is to be paid by the Concessionaire.

Kriegers Flak:

For Kriegers Flak increase of J-tube size will be considered, to get an inner diameter of minimum 2 times the outer diameter as the J-tubes at this project will have 2-3 bendings.

Q: In relation to the time of substation design freeze and the time for concession award, will it be possible for the concession winner to effect or change any cable routes for concession winners equipment at substation after concession award?

A (19.06.2014): Re Horns Rev 3: Yes, it will be possible to change the cable route for the 33 kV cables at the Cellar Deck of the offshore platform and to affect cable routes for Concessionaire´s equipment. Cable routing will be discussed and agreed with the winning Concessionaire in spring 2015.

Q: In relation to substation drawings (A (26.02.2014): Drawing 104H4 05 004, showing the 33 kV cable routes at Anholt platform cellar deck can be found here. The 33 kV cable routes at Horns Rev 3 and Kriegers Flak platforms will be similar), can ENDK state the orientation (North, south, east, west) direction on the drawings?

A (19.06.2014): Re Horns Rev 3: The cable routes at Horns 3 Rev will be similar to the cable routes at Anholt platform.

The final layout of the cable routes at Horns Rev 3 is to be discussed and agreed upon in spring 2015.

Re Kriegers Flak: The cable routes at Kriegers Flak will be similar to the cable routes at Anholt platform.

The final layout of the cable routes at Kriegers Flak will be discussed and agreed upon shortly after the concessionary has been appointed by the DEA.

Platform Orientations:

Re Horns Rev 3:

The tanks indicated at drawing 104H4 05 004 is located in the south end of the platform, true north direction is perpendicular to the center line of the tanks.

Re Kriegers Flak 200 MW

The tanks indicated at drawing 104H4 05 004 is located in the south end of the platform, true north direction is perpendicular to the center line of the tanks.

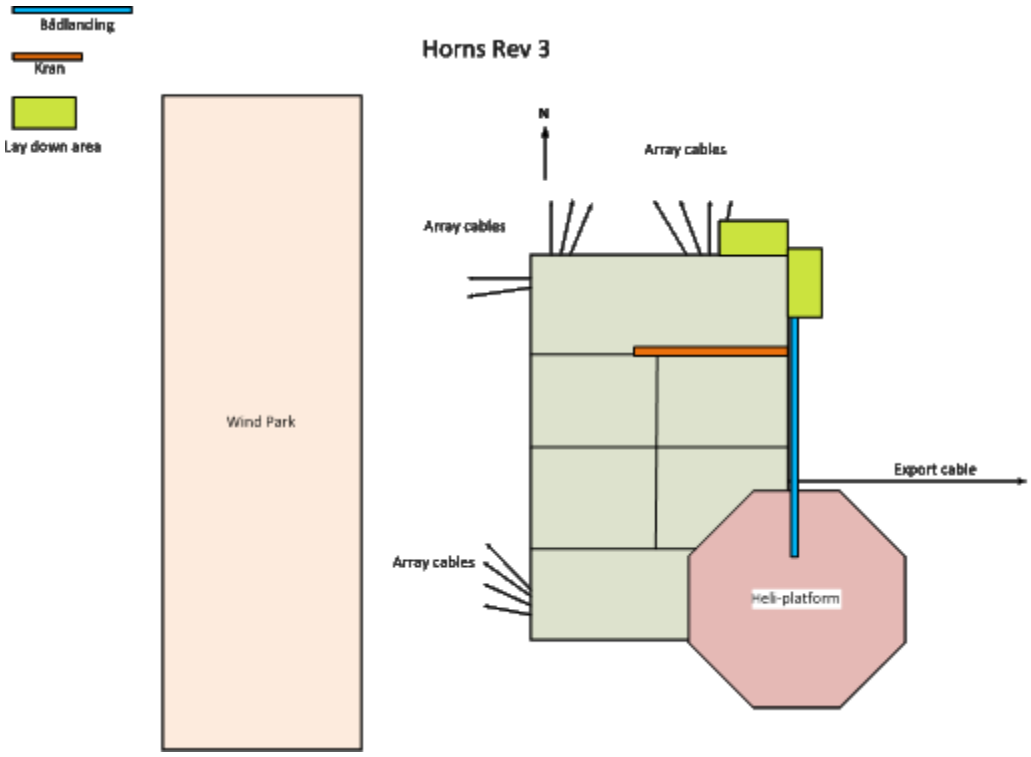
Re Kriegers Flak 400 MW

The tanks indicated at drawing 104H4 05 004 is located in the north end of the platform, true north direction is perpendicular to the center line of the tanks.

Q: Can ENS publish detailed substation J-tube drawings with orientation (North, south, east, west) direction on the drawings?

A (19.06.2014): Horns Rev 3: The orientation of the J-tubes at Horns Rev 3 platform is shown in the sketch below.

The wind park can be all way around the platform, here only indicated on the west side of the platform. However, array cables and wind turbines must be placed outside the corridor for the export cable which runs from the platform to land.



Q: In relation to insulation coordination study, does ENDK expect perform such study, and if yes, when is it expected start and end?

A (19.06.2014): Re Horns Rev 3: Energinet.dk is currently performing an insulation coordination study which will be finished in August 2014. When finalized the study will be made available to the bidders.

Q: Does ENDK expect do an joint insulation coordination study between TSO and concession winner?

A (19.06.2014): Energinet.dk is open for a discussion of a joint insulation coordination study when the concessionary has been appointed by the DEA.

Tender material

Q: In the tender material for Anholt the following is stated:

"A detailed project plan, including a detailed project description and an updated, detailed timetable, shall be submitted to the Danish Energy Agency and Energinet.dk no later than two months prior to commencement of the construction work. The project description shall contain information on the wind farm layout, choice of suppliers, type of wind turbine, foundations, internal grids, etc. Furthermore, the final location and design of the turbines must be described. The detailed project plan shall also provide evidence that the terms of this licence will be met. Similarly, the detailed project plan shall contain the information to be notified to, or submitted for approval by, the Danish Energy Agency pursuant to this licence."

At the time, two months before construction start, it is, in principle, not possible to change anything on the project, without large impacts on both time and budget, since all aspects have already been contracted and manufactured.

To avoid any uncertainties how we can make sure, at an early stage, that there will not be a change request out of this project plan. The same is also true for the project plan to be given to DEA some months after the tender.

Is there some check mark requirements e.g. certification etc. (understand that we need to follow Danish law and the permit for KFL in addition) which can be used to make sure that we will get an approval from DEA on our Project Plan?

A (11.06.2014): The purpose is partly to monitor the timely development of the project/concession and partly to ensure that the terms of the licenses/EIS have been met.

The idea is not to engage in a detailed discussion of the technical aspects of the project plan, but to create more certainty for the concessionaire. We fully understand that there will be no time to undertake major changes.

As the terms of the licenses/EIS are well known before the final bid is made, the risk of any major misunderstandings or other complications is deemed to be very low.

Furthermore, the DEA and the concessionaire will continuously hold meetings before the submission of the detailed plans.

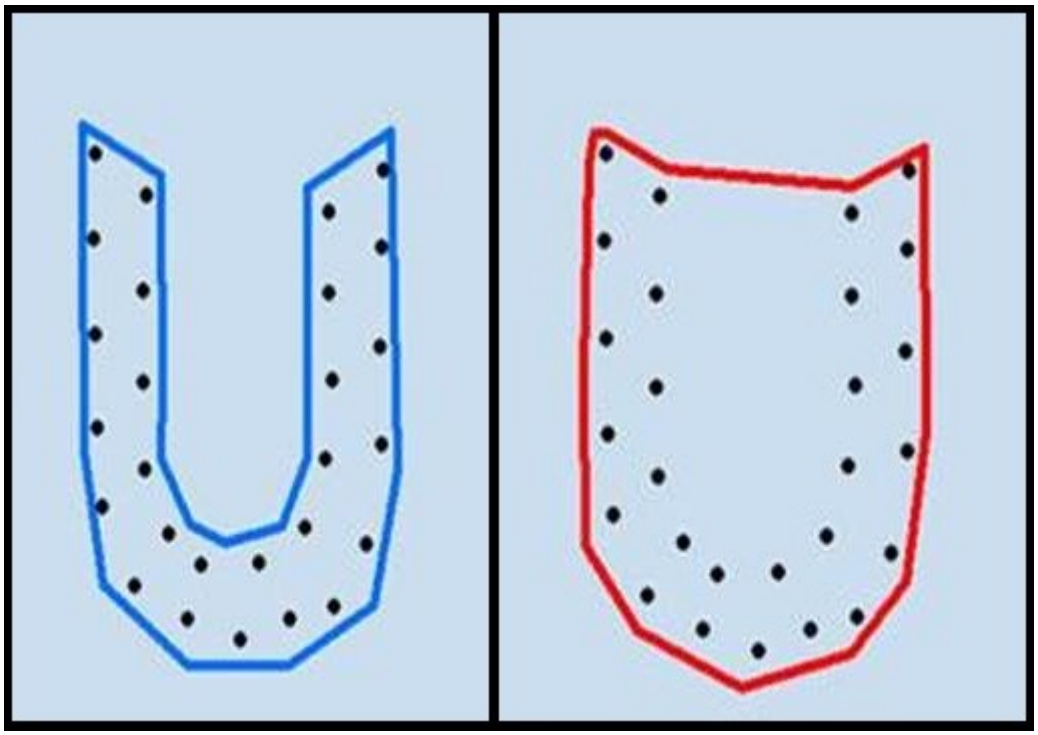
Q: Are there certain tax rules, for instance depreciation rules, which are different for offshore wind and other industrial assets in Denmark?

A (11.06.2014): In general we do not give tax advice on the financial part of the project. It is necessary that you employ your own specialist.

As a One-stop-shop we concentrate on making it easy for you to build the farm through clear regulatory rules and procedures in the model permits and licenses which we issue together with the tender material. As part of our work we are constantly in contact with other relevant offshore authorities. For instance we have been working together with the tax authorities on cutting some of the red tape in relation to the application of VAT rules on offshore construction.

The following guidelines have been published by the tax authorities (in Danish): https://www.skat.dk/SKAT.aspx?oID=1975608 and may serve as a good starting point in your research.

Q: How would the area of 44km2/200MW be decided? How would you calculate the area in the example?



A (08.05.2014): As a general rule the area is calculated by drawing a line through the outer turbines. This means that we would calculate in accordance with the approach used in the red illustration to the right.

However, corridors for export cables and no-fly zones around the platform should not be included in the calculation of the 44km2 as the developer has no access to these corridors.

Q: Will it be allowed to work (e.g. place jack-up vessels) outside the 44km2/200MW area and/or outside the project area?

A (08.05.2014): Yes, work during construction will be allowed outside the project area.

Q: How is the 44km2/200MW area calculation? It is from the center of the foundation, the outer wall of the foundation or is all the parts of the wind turbine counted towards the 44km2/200MW?

A (08.05.2014): The area (44km2/200MW) is calculated by using the position (coordinates) of the outer turbines. These coordinates must correspond to the center of the foundation.

Q: It is required that scour protection and/or turbine wings is within the project area (i.e. permitted area)? Are we allowed to work outside the project area including marking and buoying?

A (08.05.2014): The area (44km2/200MW) is calculated by using the position (coordinates) of the outer turbines. These coordinates must correspond to the center of the foundation. Hence, the scour protection and/or turbine wings can extend the project area.

Yes, construction work and markings/buoying of the construction area can be established outside the 44km2. The precise location of the markings/buoys must be agreed with the Danish Maritime Authority before construction is commenced.

Q: Is it allowed to work outside the project area and/or outside the 44km2/200MW?

A (08.05.2014): Yes, work during construction will be allowed outside the project area (44km2/200MW)

Q: Will the feed in tariff be given directly from the first kWh of produced power on not until all turbines have started to generate?

A (08.05.2014): Subsidies will be given as contract for difference from production of the first kWh.

Q: The winning bidder will receive a fixed price per kWh for the first 20 TWh.

What grid conditions and grid tariffs will be applicable after the first 20 TWh, i.e. feed-in tariff (indfødnings tarif), guaranteed grid availability, costs for balancing power, etc.?

A (29.04.2014): We expect the regulation of the grid costs to be similar to the one applied in the Anholt tender, cp. also with the section “Financial terms” in the “Invitation to dialogue” paper from 2013. The final regulation will be fixed in connection with the publishing of the preliminary tender material.

WTG SCADA equipment

Q: There will be installed a WTG SCADA (SCADA: Supervisory Control and Data Acquisition) system including SCADA server panel and HMI (Human Machine Interface) operator station in the offshore substation for control, supervision and monitoring of the WTG.

Please specify the latest date that SCADA equipment shall be delivered to substation prior to sail-away.

A (11.04.2014): According to Energinet.dk the latest date will be September/October 2015. Installation of equipment is planned to take place in the period September to December 2015, test and onshore commissioning January to ultimo March 2016. Sail-off start April 2016.

In general, Energinet.dk will not take care of anything in relation with the equipment for the WTG SCADA, optical fibers etc.

The Concession Owner is responsible for the installation, mechanical completion, testing and commissioning of all systems needed for the wind park on the platform.

Q: Please clarify who will be responsible to installation and issue MC certificates for this equipment.

A (11.04.2014): Concession Owner will be responsible for the installation and issue MC certificates.

Q: Please confirm that the WTG contractor that will carry the completion and commissioning of this device.

A: (11.04.2014): Question is unclear, please rephrase.

WTG SCADA Network

Q: Technical network for the WTG SCADA system shall be installed for supervision, monitoring and control of the WTG's.

Please confirm that the ESI contractor (ESI: Electrical System Infrastructure – contract assumed owned by Energinet.dk) will carry the installation of a separate WTG network with connection to the plant technical network.

A (11.04.2014): Concession Owner will be responsible for this. The ESI Contractor employed by Energinet.dk will not do any work on the Concession Owners equipment.

The Concession Owner will have to hire his own ESI Contractor or make a separate contract with the Energinet.dk's ESI Contractor

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Q: Please confirm that the ESI contractor will carry the MC (Mechanical Completion) completion of this network.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Please confirm that the commissioning of this device will be undertaken by the ESI contractor with assistance from WTG contractor.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Interface between WTG HPPP and ESI SCADA system

Grid Measuring Station panel (GMS) /High Power Park Pilot (HPPP)

There will be installed a Grid Measuring Station panel including HPPP controllers.

Please clarify who will be responsible for the installation and issue MC certificates for this equipment.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Interface cabling between the GMS panel/HPPP and ESI system Control system

Please clarify who will be responsible for the installation of all cabling between the GSM/HPPP panel and ESI system and issue MC certificates for this equipment.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Testing

Please clarify who will have the overall responsibility to test out the HPPP.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Please clarify who will have the overall responsibility to test out the HPPP control function and necessary interfaces between the WTG SCADA and ESI SCADA system according to mandatory requirements.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Please confirm that the commissioning of this device will be undertaken by WTG contractor with assistance from ESI contractor.

A (11.04.2014): Concession Owner will be responsible for this.

Telecommunication equipment

Q: There will be installed a telecommunication equipment on the WTG the offshore substation for control, supervision and monitoring of the WTG.

Please specify the latest date that telecom equipment shall be delivered to substation prior to sail-away.

A (11.04.2014): September/October 2015. Installation of equipment is planned to take place in the period September to December 2015, test and onshore commissioning January to ultimo March 2016. Sail-off start April 2016.

Q: Please clarify who will be responsible for the installation and issue MC certificates for this equipment.

A (11.04.2014): Energinet.dk: Concession Owner will be responsible for this.

Q: Please confirm that the WTG contractor that will carry the completion and commissioning of this device.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Installation and termination of optical fiber cables

There will be installed fiber optical cables from the WTG's to the offshore substation for control, supervision and monitoring of the WTG.

Please clarify who will be responsible to installation, termination and issue MC certificates for this equipment.

A (11.04.2014): Concession Owner will be responsible for this.

Q: Please confirm that the ESI contractor that will carry the MC completion of these cables.

A (11.04.2014): Concession Owner will be responsible for the MC completion of the optical cables.

Q: Please confirm that commissioning of this device will be undertaken by ESI contractor with assistance from WTG contractor.

A (11.04.2014): Concession Owner will be responsible for this. The ESI Contractor employed by Energinet.dk will not do any work on the Concession Owners equipment.

Q: DEA has previously confirmed that Energinet.dk are going to install MV switchgears but what aboutQ: Sub-distribution panels for 220 V AC, 220 V DC for the MW switchgear and SCADA and communication system.

A (11.04.2014): Energinet.dk will provide redundant power supplies for 400/230 V AC and 220 V DC and if required also for 48 V DC. Sub-distributions panels will not be provided by Energinet.dk.

Q: Earthing resistors

A (11.04.2014): Earthing resistors will not be provided by Energinet.dk space for the resistors will be allocated at each 33/0.4 kV auxiliary transformer.

Q: MV surge arrestors

A (11.04.2014): All 33 kV surge arresters for the incoming cables are to be provided by the wind park owner. Surge arresters for the main transformer and auxiliary transformer will be provided by Energinet.dk, Each cable bays in MV switchgear will have a Connexs inlet for the surge arresters

Also some additional questions regarding the platform:

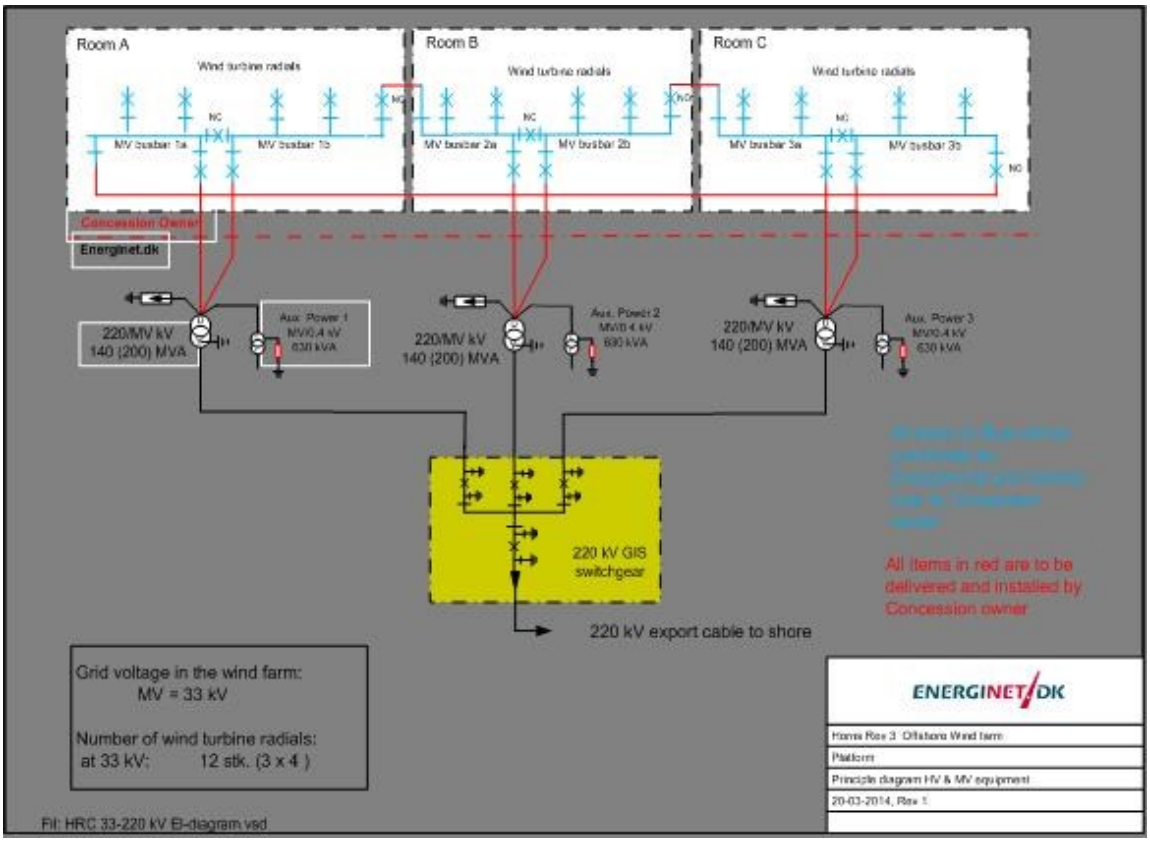
Q: Detailed layout of J-tube arrangement (detailed drawing of multi J-tube steel pipe)

A (11.04.2014): J-tube drawing cannot be provided at present as detailed design of jacket in not finalized.

Q: Cable end terminations to be used at the MW switchgear supplied by Energinet.dk

A (11.04.2014): The female-part of Connex-connectors at the MV switchgear will be provided. Wind park owner to provide the male-part of the connectors.

The wind park shall deliver all MV cables except the cables between main transformers and auxiliary transformers. See inserted single line diagram.



Q: According to the "Technical Project Description for the large-scale offshore wind farm (400MW) at Horns Rev 3" the export cable will connected to Blåbjerg station.

1. Will the fibre optic cables in the export cables be split at Blåbjerg station?

A (11.04.2014): The optic fibers will be available in substation Blåbjerg or in substation Endrup

2. If yes, will there be space inside Blåbjerg station for the concession winners SCADA and communication systems?

A (11.04.2014): No

3. If no, do DEA or Energinet.dk have allocated any space for the concession winners SCADA and communication systems elsewhere, and if yes, where?

A (11.04.2014): It is a task to Concession owner to ensure room/space for SCADA and communication systems onshore. On the platform a 3.8 x 10 m room will be available for the Concession owners SCADA and communication equipment plus space in each of the three MV switchgear rooms.

Q: The questions are in relation to Energinet.dk offshore substation fabrication site.

1. Is it known where Energinet.dk offshore substations will be fabricated?

A (11.04.2014): Fabrication location in not known yet.

2. If no, when will Energinet.dk offshore substation contractor be known, and will the?

A (11.04.2014): Contractor and location is expected to be published in November 2014.

Q: The questions is in relation to DEA announcement of Energinet.dk will purchase the 33 kV switch gear to the offshore substation and thereafter handover the switch gear contract to the concession winner. This has until now lead to some technical uncertainties which we hope Energinet.dk could help to clarify:

A (11.04.2014): In general, the purpose of having Energinet.dk to purchase the MV switchgear is to make it possibly to have the switchgear delivered, installed and tested at the substation before sail of in April 2016. To that purpose the Minister for Climate- Energy and Buildings will put forward a new bill to the parliament that with Parlament's adaption should provide the necessary legal basis for allowing Energinet.dk to purchase switchgears which will later be acquired by the future winner of the tender. Energinet.dk do estimate, that the wind farm owner do have time to purchase protection relays and/or bay controllers and have this equipment delivered and built in the switchgear at the switchgear suppliers place. Conditioned on the adaption by parliament of the new legal basis the installation of MV switchgear is planned to take place from September to December 2015.

1. When is the tender process for the MV GIS expected to start, and when can we expect to get access to tender material?

A (11.04.2014): The tender process is expected to start in June 2014. Tender material is expected to be issued for review in May 2014.

2. Will protection systems be procured along with the MV GIS?

A (11.04.2014): Protection and control system will not be procured along with the MV switchgear.

All commands, indications, output from measuring transformers etc. will be terminated in terminal rows.

3. Will surge arresters be procured along with the MV GIS?

A (11.04.2014): All 33 kV surge arresters for the incoming cables are to be provided by the wind park owner. Surge arresters for the main transformer and auxiliary transformer will be provided by Energinet.dk, Each cable bays in MV switchgear will have a Connexs inlet for the surge arresters

4. Who is responsible for the insulation coordination study?

A (11.04.2014): Concession owner will be responsible for insulation coordination study for MV circuits. Overall insulation coordination studies to be coordinated with Energinet.dk.

5. Who is responsible for internal cables between GIS and the transformer?

A (11.04.2014): Wind farm owner shall deliver all MV cables except the cables between main transformers and auxiliary transformers. See single line diagram below.

6. Will it be possible to connect back-up protection relay's from the WTG to the MV GIS?

A (11.04.2014): Yes as the protection relays will be designed and provided by Concession Owner

7. Which options is available in the MV GIS Contract?

A (11.04.2014): Energinet.dk will retain an option in the MV switchgear contract for building in protection relays and/or bay controllers - delivered by wind farm owner - into the LV apartment of the 33 kV switchgear at the switchgear manufacture's place. Suggestion for other options can be given during the review of the MV switchgear tender material in May 2014.

8. What is the expected MV GIS auxiliary consumption for 220 AC?

A (11.04.2014): Only consumption for light and if necessary heating in the cubicles is expected.

9. What is the expected MV GIS auxiliary consumption for 220 DC?

A (11.04.2014): As the protection relays are delivered by wind farm owner, the only known consumption is the ordinary consumption by operating disconnecters and breakers. Spring charge motors is expected to be 220 V DC10.

10. What is the expected service intervals for the MV GIS?

A (11.04.2014): Will be according to manufacturer's recommendation

11. What will be specified in ENDK requirements for communication protocol for interfacing to the protection relays?

A (11.04.2014): To be decided by Concession owner as he will design and purchase the protection relays

12. What will be specified in ENDK requirements for FAT tests, interfacing protection to Substation Control System?

A (11.04.2014): Requirements for FAT will be standard. Exact text is not yet known as the specification is not yet complete. Interface protection to substation control system (hardwired to 220 kV GIS) will be specified as it was made at Anholt offshore substation, but has to be cleared between Energinet.dk and wind farm owner, as soon as the concession is given in spring 2015.

13. What will be specified in ENDK requirements regarding protection functionality, as costs for extensions will be on Tenderer

A (11.04.2014): Nothing, Protection relays are wind farm owner scope.

14. Since the earthing resistor is part of the concessionaire slit, is this also the case for the auxiliary transformers?

A (11.04.2014): The auxiliary transformers will be part of Energinet.dk's scope. The transformers will be 630 kVA 34/0.4 kV with off-load tab-changer ±2x2.5%, ZNyn with ZN zero designed for 1000A, 1s and a zero sequence impedance = 28 ohm.

Q: In the contract notice III.1.2) it is stated that the applicant is requested to submit "copies of the full annual report (including notes and appendices) and audited accounts for each of the previous three (3) financial years available. By "financial years" is meant either calendar years or accounting periods".

What is meant by "available"? Is annual reports for 2010,2011 and 2012 then adequate?

A (11.04.2014): Yes.

Q: Could you please refer to relevant Danish regulations and requirements regarding windturbine switchgear to consider during design phase?

A (08.04.2014): There is no specific Danish regulation regarding wind turbine switch gear, except that the minimum design requirements must be met. These are specified in TF 3.2.5. (Technical Regulation 3.2.5).

Q: The tariff is currently DKK 0.003 per kWh. The grid production tariff will not be an operating cost for the whole subsidy period. Does this cost / tariff needs to be inflated over time?

A (08.04.2014): The tariff is currently not being inflated over time and has been fixed at DKK 0,003/KWh since 2011 for producers in both Western and Eastern Denmark.

The tariff is approved by the Danish Energy Regulatory Authority based on Energinet.dk's submission for approval, but it is not possible to offer any guarantees as to what level it will be at in the future.

Q: We are in the process of carrying out a risk assessment for the array cables, taking into account seabed conditions as well as threats of external aggression (fishing, shipping). The main objective of the assessment is to determine a suitable burial depth for the array cables subject to the determined threat level, and reconciling these findings with an economically viable means of cable installation. Please confirm that this above mentioned approach is aligned with the strategy of the DEA and does not contravene any existing requirements on burial depth of the inner-park submarine cables (array cables).

A (08.04.2014): The Danish Maritime Authority recommends that offshore cables – such as array cables – are buried into the seabed, but has no requirement with regard to the depth of burial.

Q: Is it required by the DEA to do individual drillings on all turbine locations or is this optional and a decision to be made by the constructor?

A (08.04.2014): The DEA does not require the concession owner to conduct specific pre-investigations. This is a decision to be made by the concession owner. A model icense for pre-investigations is included in the tender material.

Q: How will the foundation design be certified with regard to "collision friendliness" and who will do the work?

A (08.04.2014): The implications of the design of the foundations in relation to the risk of collision during operation and maintenance is part of the required project certification to IEC61400-22 by the concessionaire. The certification follows the requirements of IEC61400-22 and the design requirements of IEC61400-3 which does not use the term "collision friendliness", however, but "sideways or stern collision". The term "collision friendliness" is used in relation to the approval of the detailed project plan which must take into account the different regulatory terms stated in the license. As part of the license to establish the electricity production plant, and as a prerequisite for exploiting the license for construction work, the concessionaire must prepare a detailed project plan of the construction work. The detailed project plan is to be prepared after the concessionaire has chosen which type of turbine, foundation, wind-farm layout, etc. to use for the project. The detailed project plan should provide detailed evidence to the Danish Energy Agency that the terms of the establishment license issued (based on the input from all relevant Danish authorities as the DEA act as one-stop-shop) will be met, including the term of "collision friendliness" which is used by the Marine Authorities.

Q: Regarding Monopile foundations, the size for larger turbines will most likely require that the monopiles will be drilled as well as driven down. Would this be an issue in terms of the permit?

A (08.04.2014): Specifications for the concrete project will be known when the Danish authorities have approved the environmental impact statement and decided on the environmental restrictions.

MetOcean

Q: It seems that some of the results of the HR3-TR-020 Metocean report are too unrealistic; the wind speed at 10m at A,B,C and D (from page 61) with different heights of directional wind shear (from page 113) have been analysed, which results in 12.6m/s mean wind speed at 103m hub height.

The directional mean wind shear at any point of any height is too large. It should be about 0.07 to 0.14, but in this report, the wind shear can be as high as more than 1. It is very high uncertainty to shear the wind speed from 10m to 103m.

If no data can be delivered it is suggested to use the Weibull distribution from "HR3_ELTRA_PSO_2002_Tech-wise", table 4-2, for Horns Rev (62m)

Furthermore, the air density at hub height, the extreme wind speed in 50 years, 10min, are not well defined in the metocean report. Please provide these.

A (06.04.2014): The issue raised is caused by a misunderstanding. What DMI call wind shear in the metocean report is the (vector) wind speed difference (in m/s) between two heights, and not the (dimensionless) wind shear exponent from a power-law fit.

The Metocean study is currently in finalization regarding certification by DNV-GL. When the certified version of the metocean report is released, proper statistics of the wind shear exponent is included.

Q: Could you please make the GIS data used for the maps in the draft EIA technical background reports available for download?

A (04.04.2014):We are currently working on making the Horns Rev 3 GIS data available. We expect to upload the data on the tender homepage of Energinet.dk around April 28 2014.

Joint and several liability

Q: Regarding the issue of "joint and several liability"; While it's understood that the exact terms of this liability will be stated in the tender documents, is it possible to receive some general understanding as to what liability is being contemplated with regard to this requirement? For example, is there a document from a previous tender that would be indicative of what could be expected in the HR-3 tender with regard to liabilities? And/or, could a head of terms document be made available, which would at least indicate what sort of liabilities are at issue?

A (03.04.2014): DEA can provide the following brief summary of what is being contemplated. It should be emphasized that it is solely provisional and general considerations, and that the applicants under no circumstances can rely on the description stated below.

Short description of the obligations

In the following the basic obligations will be described. The description is not a complete description of the obligations or their extent.

The concession comprises both a right and an obligation for the concessionaire to establish a wind farm. The wind farm shall be the property of the concessionaire and the concession shall therefore not comprise an obligation to transfer the property right to the wind farm.

The compliance bond associated with the obligation to establish the wind farm will most likely be DKK 100 million from 0-4 months from signing of the concession contract and DKK 300 million from 4 months and until connection of the first offshore wind turbine to grid. The compliance bond appears from section VI.2) no. 10 of the Contract Notice. This compliance bond will most likely also comprise

the no-fault liability, cf.Section 31 of the Act on the promotion of Renewable Energy currently in force according to which the concessionaire shall be subject to objective liability for damages for any consequential loss suffered by Energinet.dk if the concessionaire fails to establish the wind farm. With this compliance bond the liability for the obligation to establish the wind farm will therefore most likely be settled.

Furthermore, the concession shall comprise an obligation for the concessionaire to reestablish the previous conditions in the area and dismantle the facility according to a plan approved by DEA at the concessionaire's expense, if for instance

1. the license for electricity production expires

2. the facility is not maintained or is destroyed,

3. the facility is no longer used as a wind farm, or

4. the terms of the licences are not fulfilled or complied with.

The obligation may comprise a partial or a total removal of all facilities. If only a partial removal of the facility will be necessary at the time, it will most likely be required that the remaining part of the foundation will not be exposed in

connection with natural, dynamic changes in the sediment. Requirements regarding the use of the best available technology and the best environmental practice in connection with the removal of the facility should also be expected.

The concession shall also comprise a responsibility according the general civil law in connection with the presence of the facility. If the concessionaire inflicts damage on the surroundings in connection with the establishment of or operation of the wind farm – e.g. damage on ships as a consequence of lacking sea buoys, personal injury because of a bad working environment/illegal installations/lack of markings etc., sea pollution because of oil spills from service ships or the like – the concessionaire shall be liable for restoring the damage, compensation the injured etc. (in accordance with the limitations of the law). The concessionaire is obligated to take out sufficient insurance in this respect.

Besides, the wind farm is held for the concessionaire's account and at his risk.

Joint and several liability

Q: Will it be possible to meet the requirement to "undertake joint and several liability" through a means other than a direct contractual obligation with the economic operator who is providing the financial qualification? For example, could the liability requirement be met by a bond or other instrument which would ensure that the liability is covered but without recourse to the economic operator who was identified to meet the finance qualification?

A (03.04.2014): No, the relevant economic operator must undertake joint and several liability through a direct contractual obligation.

Q: If the answer to the above question is affirmative, could the "Declaration of Support" forms be modified accordingly?

A (03.04.2014): N/A

Q: The contract notice indicates that the concession contract will be for a "…a fixed price/kwh for 20 TWh (contract for the difference) which makes a very predictable income." How will this contract for differences work in the event of negative reference prices? For example, would the project receive the full strike price in the event of negative reference price, including full strike price plus payment for the negative reference price? If not, would the project be allowed to curtail operation in the event of negative reference prices, so as to later receive the full strike price for all 20 TWh?

A (03.04.2014): We expect the following rules to apply in the event of negative prices on the spot market, cp. also with the license for electricity production for the most recent offshore wind farm at Anholt: A price supplement shall not be paid for production during hours in which the spot price is not positive. Spot price for electricity" shall mean the hourly price per kWh stated by the Nordic Electricity Exchange, Nordpool on the spot market for the relevant area. The total subsidy period will not be shorter, as the subsidy period will be extended to cover the number of negative hours in which the subsidy was discontinued. It is intended that the number of hours of negative spot prices, in which the subsidy is discontinued, will be limited to a maximum per year or for the whole subsidy period. In case of the Anholt tender the maximum was 300 hours per year. We have not decided on the maximum for this tender. See also our Q &A on our homepage for more information on the actual numbers of negative prices in DK1 during the last years. In the event of negative prices the concessionaire is allowed to curtain operation.

Q: Considering EOD (Explosive Ordnance Disposal) it is very likely that we will find bombs at the site which either need to moved or blasted. Is the removal of EO something that Energinet will take care of? and if yes, what is the expected lead time from positive identifying EO until removal?

A (03.04.2014): As part of the pre-investigations on both Kriegers Flak and Horns Rev 3, UXO desktop-studies etc. have been performed. In the Horns Rev 3 area, an EOD field diver examination was performed in February 2014 on the 5 magnetic anomalies found during the clearance survey that was conducted prior to the geotechnical survey in 2013. The report is available on the webpage. (http://www.energinet.dk/DA/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Havmoelleparken-Horns-Rev-3/Forundersoegelser/Sider/Datapakker.aspx)

Energinet.dk will not do any further field investigations or any further activities with regard to UXO/EODs as part of the Horns Rev 3 and Kriegers Flak OWF pre-investigations.

Contract notice

Q: I have read the "Horns Rev 3 Contract Notice", is there further information that describes the contract for difference?

As we understand the documentation we will be compensated for the difference between the spot price of electricity and the bid we provide. How will the spot price be determined? Is it the monthly mean price of Nord Pool or adjusted by a factor or is it the actual hourly prices?

A (28.03.14): The economic and financial terms for Horns Rev 3 will be stated in the tender specification.

We expect that the terms will be as follows:

The price supplement will be calculated hour by hour as the difference between the offered price per kWh and the spot price for electricity in the relevant area. The total price supplement for an hour shall be the product of the price supplement and the metered production for the same hour. "Spot price for electricity" shall mean the hourly price per kWh stated by the Nordic Electricity Exchange, Nord Pool Spot, on the spot market for the relevant area.

Payment shall be monthly.

If the owner of the wind turbine is to pay a feed-in charge for transfer of electricity to the main electricity supply grid, a price supplement corresponding to this amount shall be paid. The above price supplement shall be paid for electricity production corresponding to a production of 20TWh.

If the market price (hour price on the spot market) for the electricity produced by the installation exceeds DKK [the offer price] per kWh, Energinet.dk shall calculate a negative price supplement. Any negative price supplements shall not be collected, but they shall be set off against future positive price supplements. There shall be no time limit for the period in which negative price supplements may be calculated.

Q: It is stated that we will need to market the electricity and take the cost associated with that which we will be compensated for. Does that include balancing cost? What will the balancing costs be and how will we be compensated for the costs associated with marketing the electricity produced?

A: The owner of the wind turbine shall be responsible for sales of production on the electricity market and for paying the costs of this. No allowances shall be paid for balancing costs for electricity from the wind turbines.

In the event of an imbalance between the expected and actual production, owners of concessions can initially trade themselves into balance via intra-day trading on the Elbas exchange. If the imbalance continues, the Danish TSO, Energinet.dk, will purchase the power necessary to balance, and subsequently this will have to be compensated for by the owner of the concession. The costs of Energinet.dk having to purchase balancing power depend on the prices in the specific price area and these vary hour by hour. Denmark is divided into two regional price areas. Horns Rev 3 will be part of the west-Denmark price area, while Kriegers Flak offshore wind farm will be in the east-Denmark price area. A company does not necessarily have to be responsible itself for balancing but, for a charge, can delegate this role to a commercial player in the Danish market.

Contract notice

Q: In the contract notice published by the DEA on December 6, 2014, it is mentioned that an applicant could be a company that is not established at the time of the deadline for requests for prequalification. Could the DEA please indicate when such a company would need to be established during the Horns Rev 3 tendering process? Can an indicative bid be submitted on behalf a non-established company? Can negotiations between the DEA and a non-established company take place as part of the tendering process?

A (18.03.2014): If the applicant is a company that is not established at the time of the deadline for requests for prequalification, this must be stated in the application for prequalification. The applicant must furthermore state if the applicant relies on the economic and financial and/or technical capacity of other economic operators (e.g. founding companies). The applicant would need to be established, if the concession is won, prior to signing the contract. Indicative bids may be submitted by a non-establish company and negations may take place with a non-establish company. The founding company/companies and future owner(s) are to appoint an applicant representative, cf. section I, A2 in the Pre-Qualification Questionnaire.

Prequalification

Q: Subsidiary E (SE) will apply for prequalification for the new offshore wind tender Horns Rev 3.

SE is a newly established company, fully owned by subsidiary B (SB) (SE intended to perform the Danish wind activities (except from activities in relation to the wind farm X) within the group. SE can rely on economic and financial capacity and experience of other companies within the group to be able to fulfill the minimum requirements in the prequalification/tender process.

Wind farm X

SE's reference within project development and management of construction regarding an offshore wind farm of minimum 100 MW installed capacity will be the wind farm X. X was developed and constructed by subsidiary C (SC) – previously fully owned by the parent of the group (PA) and the company within the group that previously conducted all wind related activities in the Nordic region. SC has now transferred all its assets and liabilities, except from the X wind farm, to several newly established companies, all 100 % directly or indirectly owned by PA. All personnel have also been transferred from SC to SB and subsidiary D (SD). The only asset remaining in SC being the X wind farm itself. Then xx % of the shares in SC have been sold to another owner. The operations of the wind farm X will be performed by the newly established Danish company SD, fully owned by PA.

This means that the project development and management of construction of the X wind farm has been performed by personnel today employed by SD and SB . The company actually holding the license to develop and construct x wind farm has however, post construction, been sold (to xx %). The "experience" (in terms of personnel, routines, know-how etc.) has prior to the sale been transferred fully to other corporate entities.

Thus, the question is as follows. Would it be possible for SE to rely on the experience of PA, as the 100 % owner of SE, SB and SD , and at the time for development and construction of x wind farm, of SC, when it comes to the development and construction of Horns Rev 3?

If not, would it be possible to rely on the experience of SB and SD, being the companies where the personnel that developed and constructed wind farm x is now employed and the know-how held?

A (18.03.2014): The technical capacity/experience is considered to follow the actual company (economic operator) where the experience is obtained, cf. QA 4/ 14-2-14. However, if the actual company (economic operator) has transferred the relevant branch of activities (constituting an independent business) to another company, said other company is considered to have received the technical capacity/experience.

It is not possible to rely on the technical capacity/experience of companies where to personnel, know-how etc. from the actual company/business where the experience is obtained has been transferred, if this does not represent a branch of activities (constituting an independent business).

Thus it will only be possible to rely on the experience of PA, SB and/or SD if the relevant branch(es) of activities (constituting one or more independent business(es)) has been transferred to PA, SB and/or SD . The "relevant" branch shall be determined taking into account the experience in question, i.e. project development and management of construction.

Prequalification

Q: Wind farm Y

The other reference within project development and management of construction regarding an offshore wind farm will be the wind farm Y. The capacity of Y is however less than 100MW which means it will not alone be sufficient to meet the prequalification requirements. This wind farm was also developed and constructed by SC , and then all assets and liabilities in relation to the wind farm was transferred to subsidiary G (SG) and the personnel, know-how etc. to SB (and XX % of SC sold to another owner, as stated above). The same question applies here, would it be possible for SE to rely on the experience of PA, as the 100 % owner of SG and SB, and at the time for development and construction of Y, of SC, when it comes to the development and construction of Horns Rev 3?

If not, would it be possible to rely on the experience of SB and SG, the first being the company where the personnel that developed and constructed Y is now employed and the know-how maintained and the second the company now owning the wind farm?

A (18.03.2014): The technical capacity/experience is considered to follow the actual company (economic operator) where the experience is obtained, cf. QA 4/ 14-2-14. However, if the actual company (economic operator) has transferred the relevant branch of activities (constituting an independent business) to another company, said other company is considered to have received the technical capacity/experience.

Thus it will only be possible to rely on the experience of SB and/or SG if the relevant branch(es) of activities (constituting one or more independent business(es)) has been transferred to SB and/or SG.. The "relevant" branch shall be determined taking into account the experience in question, i.e. project development and management of construction.

Prequalification

Q: The group still holds the competence and experience gathered from X and Y including the personnel that performed project development and management of construction even if the actual company in whose name the projects were constructed is no longer fully owned by the group. We would therefore very much like to get a confirmation that DEA/Energistyrelsen would accept PA, or the current daughter companies as described above, as the relevant economic operators when it comes to technical experience.

A (18.03.2014): It is not possible at this stage in the tender process to confirm which economic operator will be relevant when it comes to technical experience. This evaluation will only take place at the evaluation of the application for prequalification itself. Furthermore it is not possible on the basis of the information submitted to make the evaluation (e.g. to determine if a branch of activities (constituting an independent business) has been transferred to another company).

Contract notice

Q: If an applicant is a company that is not established at the time of the deadline for requests for prequalification, could the DEA please indicate whether or not it is possible for the founding company and future owner of that non-established company during the tendering process to decide not to establish the company (wholly owned) but rather complete the tendering process itself.

A (18.03.2014): Generally it is not possible for the founding company/companies and future owner(s) during the tendering process to decide not to establish the company but rather complete the tendering process itself (i.e. the founding company/companies takes the place as the applicant instead of the non-established company). However, DEA will make a final decision based on the specific situation and the principles in clause 12 in section IV in the Pre-Qualification Questionnaire, if relevant.

Contract notice

Q: Provided that criteria stated in the contract notice are economic and financial ability and technical capacity are still complied with, could the DEA please indicate if it is possible for a prequalified applicant to reserve the right to make use of a wholly owned SPV later on in the tendering process? If confirmed, could the DEA please indicate when in the tendering process the applicant would need to decide whether or not to actually establish such a SPV?

A (18.03.2014): If the applicant is a company that is not established at the time of the deadline for requests for prequalification, this must be stated in the application for prequalification, cf. QA1. It is not possible for a prequalified applicant to reserve the right to make use of a wholly owned SPV later on in the tendering process. If a prequalified applicant wishes to make use of a wholly owned SPV during the tendering process, this can only take place with the prior written consent of DEA, which will depend on the specific situation and the principles in clause 12 in section IV in the Pre-Qualification Questionnaire.

Q: In regards to chapter 3 questions set B of the prequalification; will it be sufficient to attach the annual reports (2011-2013) which includes the requested financial information?

A (14.03.2014): It will be sufficient in regard to providing information and formalities described in the Pre-Qualification Questionnaire, section B2, if the annual reports including the requested financial information are attached to the application.

However, it will not be sufficient in regard to providing all the information and formalities necessary for evaluating if the requirements for economic and financial ability. The applicant must also provide a statement on annual turnover and equity ratio and/or long term debt rating. For more detailed information reference is made to the Contract Notice, section III.1.2), letter E and F, and the Pre-Qualification Questionnaire, section B1 and B3-7.

Q: In chapter 4 question set C do you refer to the main licence e.g. the licence awarded by the Department of Energy and Climate Change, UK (DECC)?

A (14.03.2014): Yes, a contact person at the authority that has awarded the main licence will be satisfactory.

Q: In chapter 4 question set C1 which licence do you refer to in question 1c (*Contract signing date/ Date of concession, permit, licence etc)*?

A (14.03.2014): The date of the award of the main licence will be satisfactory.

MetOcean

Q: It seems that some of the results of the HR3-TR-020 Metocean report are too unrealistic; the wind speed at 10m at A,B,C and D (from page 61) with different heights of directional wind shear (from page 113) have been analysed, which results in 12.6m/s mean wind speed at 103m hub height.

The directional mean wind shear at any point of any height is too large. It should be about 0.07 to 0.14, but in this report, the wind shear can be as high as more than 1. It is very high uncertainty to shear the wind speed from 10m to 103m.

If no data can be delivered it is suggested to use the Weibull distribution from "HR3_ELTRA_PSO_2002_Tech-wise", table 4-2, for Horns Rev (62m)

Furthermore, the air density at hub height, the extreme wind speed in 50 years, 10min, are not well defined in the metocean report. Please provide these.

A (06.04.2014): The issue raised is caused by a misunderstanding. What DMI call wind shear in the metocean report is the (vector) wind speed difference (in m/s) between two heights, and not the (dimensionless) wind shear exponent from a power-law fit.

The Metocean study is currently in finalization regarding certification by DNV-GL. When the certified version of the metocean report is released, proper statistics of the wind shear exponent is included.

Q: What is the approx. length of the 33kV single core cables between the offshore array cable inline joints and the 33kV switchgear?

A (26.02.2014): Cable lengths between hang off and switchgear are expected to be between 15 m and 35 m with an average between 25 m and 30 m. Whether the Wind Farm Owner (WFO) will make joint close to the hang off is up to the owner to decide.

Q: Will DEA/Energinet provide a layout drawing of the offshore substation and in particular drawing of the cable ladders from the inline joints to the 33kV switchgears?

A (26.02.2014): Drawing 104H4 05 004, showing the 33 kV cable routes at Anholt platform cellar deck can be found here. The 33 kV cable routes at Horns Rev 3 and Kriegers Flak platforms will be similar.

Q: Are there any regulatory requirements on burial depth for inter array cables?

A (26.02.2014): No. It is common practice to bury the cable approximately 1 meter in the bottom. Once the cables have been installed, a protection zone will be established around them, according to the 'Order on Protection of Submarine Cables and Pipelines'. The order can be found on the webpage of the Danish Maritime Authority. (http://www.dma.dk/Sider/Home.aspx)

Q: Will fishing (using heavy fishing gear) be allowed within the HR 3 wind farm area?

A (26.02.2014): We are working on a technical background report on commercial fisheries which we plan to publish in the near future. This report will contain specific information on the conditions for all kinds of fishing in regard to Horns Rev 3.

Contract notice

Q: In the contract notice pkt. II.2.1) it is mentioned "...only turbines with an installed capacity of 405 MW can produce at the same time". Does this imply that if you install 408 MW you are only allowed to export 405 MW to the grid?

A (20.02.2014): The turbines may only produce what corresponds to 400 MW installed capacity at the point of connection on the platform. However, as we expect there to be a loss in the radials of the concession owner the installed capacity in production may in effect be higher than 400 MW. Energinet.dk expects the loss to be in the magnitude of 5 MW installed capacity. However, this is an estimated value and the actual loss may vary according to the design of the turbines and radials in the winning project.

Q: The 88km2 provided for the project, does not include the radials for the sub-station, ref your tender, where it says: "The concessionaire (the winner of this tender) is allowed to use an expected maximum of 88 km2 of the designated area for the construction of the wind farm (not including the radials to the transformer platform)" Does this also exclude the export cable and a 500 m corridor around the export cable?

A (20.02.2014): The 500 m corridor for the export cable is not included in the 88km2 which can be used for the offshore wind farm.

Q: The technical descriptions for Horns Rev 3 delivers examples of a uniform regular layout (it is observed, that DONG at Anholt has chosen a non-uniform layout suitable to catch as much wind as possible for best possible production, as is a preferred layout to reduce wake effects within the wind farm). Is a non-uniform layout allowed also for Horns Rev 3?

A (20.02.2014): The layouts presented in the technical descriptions are merely examples. The layout is decided by the concession winner and can be formed in any way – uniform or non-uniform.

Q: Is there any obligation to complete the installment of the turbines before the deadline of completion for Horns Rev 3?

A (19.12.13 REVISED VERSION 20.02.2014): It is expected, that all turbines must be connected to the grid before 1th of January 2020. In order to fulfill this, all the turbines must have produced "first power to the grid", but not necessarily have completed compliance test and commissioning. The winner of the concession is expected to be free to manage the construction process in accordance with his own plans, as long as this deadline is respected.

Q: Is it possible to retrieve the environmental requirements given for the Dong/Anholt project during construction and operation?

A (12.02.2014): The permission to establish (Etableringstilladelse) Anholt Offshore Wind Farm can be found on here

(http://www.ens.dk/undergrund-forsyning/vedvarende-energi/vindkraft-vindmoller/havvindmoller/idriftsatte-parker-nye)

MetOcean

Q: An indication of wind-wave-relations (wind speed <-> wave height) is still missing. In the Met-Ocean report provided on Energinet.dk's website it says that DMI has prepared a figure showing this relation (Figure 9.162, DMI Metocean Report, "significant wave height vs. wind speed for entire year for position A").

A (28.01.2014): Data has already been published at the 19. December 2014 and is available at the homepage of Energinet.dk in the zip folder named: HR3_Wind_Wave_time_series.zip.

MetOcean

Q: Information regarding extreme low water level is not available in doc. no. HR3-TR-020 – Horns Rev 3 Offshore Wind Farm MetOcean. Can Energinet.dk please provide extreme low water levels for 1-, 5-, 10-, 50-year and 100-year return periods?

A (28.01.2014): Negative sea level values will be extracted and published at the homepage of Energinet.dk and will be available at the 31. January 2014.

MetOcean

Q: What is the password for the data from the Horns Rev PSO met mast study:

A (28.01.2014): Below you find the userid and password to access data from the Horns Rev PSO met mast study:

Userid: pso

Password: January14

Q: Must Horns Rev 3 be completed before 1th of January 2020?

A (19.12.13): Yes.

Q: Are there any UXO-considerations in relation to Horns Rev 3 and Kriegers Flak?

A: UXOs have only been detected at Horns Rev 3 but not at Kriegers Flak.

Q: Is it possible to retrieve information on the leg-penetration logs from the jack-up vessels used for geotechnical surveys at Horns Rev 3 and Kriegers Flak?

A: The leg-penetration logs are part of the geotechnical surveys and the information will be published in the geotechnical reports. Energinet.dk will make the reports available according to the announced deadline.

Q: Is it correct that the EIA report will not be ready for external consultation until April next year?

A: The pre-investigations for the EIA for the Kriegers Flak Offshore Wind Farm (and Horns Rev 3) is currently being undertaken by Energinet.dk. The EIA will cover both the offshore and the onshore part of the project. A draft EIA report (Environmental Impact Statement, EIS), including a number of technical background reports, will be submitted to the DEA by the end of January 2014. After this, a three month consultation will take place with the various relevant authorities. By the end of April 2014, the EIS and the technical background reports, will be made public. We do not anticipate making the investigations available for external review before that date.

Q: The concession is issued for a period of 25 years but is that from start of the production or from when the concesssion is issued (Spring 2015)?

A (12.12.2013): The concession normally runs from the date the concession agreement is signed and until the entire farm is connected to the grid.

A number of model permissions, including for further pre-investigations, as well as a model license are attached to the concession.

The winner of the concession is guaranteed to obtain the permissions and the license.

Of special interest in this context is the permission to utilize the energy and the license for production of electricity.

Both are necessary in order to connect the turbines to the grid.

At the earliest it is possible to apply for the permission and the license at the beginning of the construction and at the latest two months before grid connection of the first wind turbine.

The permission to utilize the wind energy and the electricity production license usually cover a 25 year period from the date of the grid connection of the first wind turbine. Usually it is possible for the owner of the wind farm to apply for an extension.

All of this will be stated in the tender material which will be public in 2014 for Horns Rev 3. Furthermore, this procedure was also tested and used in connection with the tender of the Anholt wind farm. The material for this tender can be found here (in Danish).

MetOcean

Q: A semi-empirical methodology has been used for providing information regarding maximum wave height for Horns Rev 3. This methodology will not be acceptable for certification purpose. Could you please provide further data acceptable for certification regarding maximum wave height?

A (12.12.2013): As the certification process is work in progress, response to the current question is awaiting further input from DNV-GL before answers are published. An update is expected primo 2014.

MetOcean

Q: The probability of weather windows at Horns Rev has been calculated for 1h, 12h and 24h duration, wind speed of 8, 10 and 12 m/s and different wave heights. Could you please provide further information for: Tables

for 6h, 18h and 36h durations, Tables including 15 m/s wind speed, P75 and P90 for the same durations and constraints, Expected downtime / waiting time [in hours] for the same durations and constraints?

A (12.12.2013): Regarding the probability of weather windows according to the given wind speeds the following tables, percentiles and expected downtime will be derived and published on the Energinet.dk homepage:

· Tables for 6h, 18h and 36h durations

· Tables including 15 m/s wind speed

· P75 and P90 for the same durations and constraints

· Expected downtime / waiting time [in hours] for the same durations and constraints

Deadline for publication will be 19. December 2013.

MetOcean

Q: In regards to the wind and wave time series at Horns Rev 3 it is noted that the wind time series in year 2003 has a mix of 1h and 3h time steps and 15 data days in the wind time series are missing in the wave time series in years 2004-2013. It is also stated in the MetOcean report that the wave hindcast model (DMI-WAM) is based on wave data from the DMI-HIRLAM (wind model).

Could you please provide the input data used to create the scatter diagrams for the wave height / wind speed and wave height / peak period?

Could you please provide one time series, including both wind and wave data?

A (12.12.2013): For the issues specified in the question, data series will be updated accordingly to provide the following:

· Wind data consistently in 1h time steps.

· Missing data in the wave time series.

· One data time series including both wind and wave data (in the same time resolution and same period (days)).

Data will be published at the Energinet.dk homepage. Deadline for publication will be 19. December 2013.

Legal

Q: The establishment license for the Anholt offshore wind farm and the text in Tender Specifications are similar. In the section about Environmental Considerations a list of demands is specified but it is not clear who is responsible and paying for the monitoring specified in the final establishment license. Is it the project developer or Energinet.dk?

A: Yes, the winner of the tender/the contractor of the OWF, will be responsible for carrying out and paying the environmental studies required by the Danish authorities in the permissions.

MetOcean

Q: Could you please provide the input data used to create the scatter diagrams for the wave height / wind speed and wave height / peak period? Appendix 9.2.13-9.2.15 to the metocean report?

A (04.01.2013). Data used to create the scatter diagrams for wave height / wind speed and wave height / peak period may be extracted from the data, which has already been published at the 19. December 2014 and is available at the

homepage of Energinet.dk in the zip folder named: HR3_Wind_Wave_time_series.zip.

Anholt

Q: The establishment license for the Anholt offshore wind farm and the text in Tender Specifications are similar. In the section about Environmental Considerations a list of demands is specified but it is not clear who is responsible and paying for the monitoring specified in the final establishment license. Is it the project developer or Energinet.dk?

A: Yes, the winner of the tender/the contractor of the OWF, will be responsible for carrying out and paying the environmental studies required by the Danish authorities in the permissions.

Legal

Q: Is there an approved environmental monitoring programme for the Anholt offshore wind farm? Is it possible to retrieve information on the programme?

A: Yes, there is. The information can be found here:

Terms of reference for the process of implementing the Anholt environmental monitoring programme (in Danish).

You can also find DONG Energy's more detailed description of their current environmental monitoring program of Anholt offshore wind farm here (Danish).
(http://www.dongenergy.com/Pages/404.aspx?requestUrl=http://www.dongenergy.com/anholt/DA/Miljoeforhold1/Pages/Overvaagningsprogramfortraekkendelandfugle.aspx)

Monitoring program

Q: The establishment license for the Anholt offshore wind farm and the text in Tender Specifications are similar. In the section about Environmental Considerations a list of demands is specified but it is not clear who is responsible and paying for the monitoring specified in the final establishment license. Is it the project developer or Energinet.dk?

A: Yes, the winner of the tender/the contractor of the OWF, will be responsible for carrying out and paying the environmental studies required by the Danish authorities in the permissions.

Q: Is it possible to visit the Anholt offshore substation? The electrical team is interested to look at cable routes, cable ladders, 33kV switch gears, SCADA room, etc. Also Generation are interested to look at rooms available for their equipment.

A (14.03.2014): The DEA welcomes the idea. We are therefore considering inviting all prequalified applicants to visit the substation following the prequalification in April/May 2014. You might expect to pay a small fee in order to cover the costs of the boat trip.
