MINISTRY OF CLIMATE, ENERGY AND BUILDING

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Instructions to establish offshore transmission infrastructures and to carry out preliminary surveys for large-scale offshore wind farms at Horns Rev and Kriegers Flak

As part of the follow-up to the energy-policy agreement of 22 March 2012, two new large-scale offshore wind farms are to be established.

- Horns Rev 3 offshore wind farm with a capacity of 400MW in the North Sea, and
- Kriegers Flak offshore wind farm with a capacity of 600MW in the Baltic Sea off the island of Møn.

Both of the offshore wind farms will be put up for tender in 2013-2015 and are expected to be commissioned in 2017-2020. The expansion of Horns Rev will be initiated first.

With a view to establishing the offshore wind farms at the least possible risk for future concession owners, and in order to achieve the lowest cost possible, the Ministry of Climate, Energy and Building has decided to initiate the preliminary surveys (EIA report and relevant seabed surveys, etc.) now, so that they can be completed before the tenderers submit their bids.

With authorisation under section 23(3) of the Renewable Energy Act, Energinet.dk is therefore instructed to carry out these preliminary surveys in addition to the establishment of the offshore grid connection infrastructures.

The Ministry of Climate, Energy and Building therefore requests that, for each of the two offshore wind farms, Energinet.dk take steps to:

1. establish offshore grid connection infrastructures;
2. perform environmental impact assessments (EIAs);
3. perform geotechnical and geophysical surveys;
4. acquire information about wind, wave patterns, and currents, etc. (metocean data).

The surveys may be performed in connection with the corresponding preliminary surveys which Energinet.dk has to carry out prior to the establishment of the offshore grid connection infrastructures.

Energinet.dk will be responsible for obtaining the permissions required to carry out the surveys etc.

The tender procedure will include specifications that the winner of the concession pay for the costs incurred by Energinet.dk in carrying out the surveys regarding the establishment of the actual wind farm dealt with under items 2, 3 and 4. Therefore, Energinet.dk must be able to separate the costs of these activities from the company's other activities.

Energinet.dk must publish the results of the sub analyses for the area (e.g. seabed, metocean, environment and navigation analyses) on an ongoing basis, so that the results are available to any tenderers. All communication about these results must be in writing and must be made simultaneously available to all potential bidders. The publication specifics will be agreed with the Danish Energy Agency.

The activities are described in more detail below.

Item 1. Instruction to establish offshore transmission infrastructures from the offshore wind farms

Pursuant to section 4(6) of the Act on Energinet.dk, the Ministry of Climate, Energy and Building instructs Energinet.dk to commence activities with a view to establishing possibilities for installing cables and for commissioning transformer substations for Horns Rev 3 and Kriegers Flak.

Commissioning of the transformer substation for Horns Rev 3 must be completed no later than 31 December 2016.

For Kriegers Flak, as decided in the energy agreement, new international electricity exchange capacity may be established in connection with the construction of the grid connection. No later than at the end of December 2012, on the basis of a socio-economic analysis of alternative grid solutions, Energinet.dk must submit a grid solution proposal to the Danish Energy Agency, including an estimate of costs. The Danish Energy Agency will subsequently notify the specific framework for Energinet.dk's work on the establishment of a grid solution and commissioning date. However, as early as in the summer of 2012, Energinet.dk must submit to the Danish Energy Agency a preliminary timetable concerning the commissioning date.

For Energinet.dk's obligations to the concession owners in connection with the establishment of the offshore wind farms, as well as the obligations of the concession owners to Energinet.dk, see section 31 of the Renewable Energy Act.

The relationship with the regional grid companies

Vestjydske Net has been authorised under section 19 of the Electricity Supply Act to transmit electricity at voltages of 150kV or less in the proposed landing site for electricity from Horns Rev 3. Seas-NVE Transmission A/S has been authorised under the Electricity Supply Act to transmit electricity at voltages of 132kV or less in the proposed landing site for electricity from Kriegers Flak.

If Energinet.dk chooses to establish the transmission infrastructure with a transmission capacity of 150kV or less, the regional grid companies mentioned above will be obligated pursuant to their authorisations to establish the relevant onshore parts of the infrastructure, see section 32 of the Renewable Energy Act.

In this event, according to section 32 of the Renewable Energy Act, a series of obligations rests with the regional grid companies and Energinet.dk when establishing the grid connection infrastructure. Reference can be made to this provision, because Energinet.dk is obligated to the concession owner to ensure that Energinet.dk's own installations, as well as the installations of the regional grid companies, have been

established, so that the concession owner can install cables and commission the transformer substation no later than on the dates to be prescribed by the Danish Energy Agency.

Pursuant to section 32(3) of the Renewable Energy Act, it rests upon Energinet.dk and the regional grid companies to enter into the necessary agreements on the establishment of those parts of the transmission infrastructure which the regional grid companies are obligated to establish.

Payment of grid connection costs

The necessary costs of grid connection, which pursuant to the provisions mentioned above must be paid by Energinet.dk, will be charged over the tariff of the system operator, see section 8(7) of Executive Order no. 1063 of 7 September 2010 on grid connection of wind turbines and price supplements on electricity from wind turbines, etc. These tariffs are notified to the Danish Energy Regulatory Authority pursuant to the provisions of section 76(3) of the Electricity Supply Act.

If the regional grid companies are responsible for establishing parts of the connection to the grid, the necessary costs hereof must be covered by Energinet.dk through payment on normal terms by Energinet.dk for the right of access, see section 21(3) of the Electricity Supply Act.

Payment of costs if the concession owner fails to construct

Any necessary costs in connection with possible cancellation of the grid connection in cases where the concession owner is not obligated to establish the installations, must be paid by Energinet.dk and will be charged over the tariff of the system operator, see section 31(4) of the Renewable Energy Act.

In this event, costs of cancelling the regional grid companies' share of the grid connection will be included in the system operator’s charge over the tariff. It is assumed that the issue of how the costs of cancellation are to be calculated and minimised will be addressed in the cooperation agreement between Energinet.dk and the regional grid companies.

Delays in establishing the grid connection infrastructures

Energinet.dk's liabilities to pay compensation in the event of delays in the establishment of the grid connection infrastructures are stated in section 32(2) of the Renewable Energy Act. The liability to pay compensation applies irrespective of the cause of the delay, including if the delay stems from activities for which the regional grid companies are responsible, see section 27(2) of the Electricity Supply Act.

Please note that this letter does not exempt Energinet.dk from acquiring other permits and authorisations, including submitting the specific grid connection infrastructure project plans to the Ministry of Climate, Energy and Building, see section 4 and 4(a) of the Act on Energinet.dk.

Item 2. Environmental impact assessment (EIA)

Pursuant to section 3 of the EIA Executive Order (Executive Order no. 68 of 26 January 2012), Energinet.dk must prepare an EIA report covering a specified area for each of the two offshore wind farms. Furthermore, the EIA report must be prepared according to the guidelines below.

For each of the two wind farms, an overall EIA report must be prepared comprising the offshore wind farm and offshore grid connection infrastructure, as well as the onshore grid installations. The EIA reports for the onshore grid installations are subject to the competence of the relevant planning authorities and these reports therefore have to be prepared in cooperation with said authorities.

Prior to performing the surveys, Energinet.dk must apply to the Danish Energy Agency for permission to carry out preliminary surveys. This application must enclose an impact assessment pursuant to section 2(2) of the *Executive Order on impact assessment regarding international nature conservation sites and protection of certain species in connection with projects on the establishment etc. of electricity production plant and electricity supply grids at sea* (Executive Order no. 1476 of 13 December 2010). The impact assessment must be submitted to and received by the Danish Energy Agency no later than four weeks prior to commencement of the surveys.

As soon as possible, and no later than on 31 January 2014, Energinet.dk must submit draft EIA reports to the Danish Energy Agency, so that the Agency can submit the draft reports to the relevant authorities and organisations for consultation.

As soon as possible, and no later than 31 April 2014, Energinet.dk must forward the final EIA reports and other results to the Danish Energy Agency.

The EIA reports will subsequently be processed by the authorities and submitted to public consultation by the Danish Energy Agency.

The Danish Energy Agency will notify Energinet.dk as soon as possible about the specific contents of the preliminary surveys etc.

Item 3. Geophysical and geotechnical surveys for the offshore wind farms

Energinet.dk must perform geophysical and geotechnical surveys in the preliminary survey area for both offshore wind farms. The purpose of the geophysical surveys is to create a data and knowledge basis for:

- Assessments of environmental impact, including marine archaeological conditions. The assessments must be included in the EIA report.
- Delimitation of the wind farm area(s).
- Assessments of the existence of potential UXOs (unexploded ordnances).
- Assessments of the possibility for jack-up substations and anchored vessels in connection with offshore survey and construction works.
- The general location of wind turbines and cables.
- Planning of the subsequent geotechnical surveys in order to update the geological model for the area and preliminary assessments of foundation methods for use in the tendering specifications.

It is a requirement that the geophysical preliminary surveys include a bathymetric multibeam survey and a side-scan sonar survey (surface surveying of seabed depths, geological seabed types and objects on the seabed), which are performed by navigating the area according to a relatively closely weaved mesh pattern determined by the desired level of detail, taking into account the objective and aim of the surveys and not least the seabed depths.

Prior to the commencement of the geophysical and geothechnical surveys, an impact assessment has to be prepared for each wind farm pursuant to the *Executive Order on impact assessment regarding international nature conservation sites and protection of certain species in connection with projects on the establishment etc. of electricity production plant and electricity supply grids at sea* (Executive Order no. 1476 of 13 December 2010). The impact assessment must be submitted to and received by the Danish Energy Agency at least four weeks prior to commencement of the surveys.

Prior the geophysical preliminary surveys, the Heritage Agency of Denmark must evaluate the level of detail of the planned surveys, so as to ensure that an adequate assessment can subsequently be made of the marine archaeological assets in the area.

Energinet.dk must contact the commercial fishermen in the area in order to organise the preliminary surveys so that fisheries are not affected unnecessarily. Others, apart from Energinet.dk may, within the area covered, be permitted to carry out other types of activity than those covered here.

Energinet.dk must take out insurance to cover any damage which Energinet.dk or other persons acting on behalf of Energinet.dk may cause pursuant to these surveys. Documentation for such insurance must be submitted to the Danish Energy Agency before surveys are carried out in Danish waters.

If any listed/protected heritage remains, whether ancient monuments or historic shipwrecks, are encountered in connection with the preliminary surveys, these shall be notified to the Viking Ship Museum, att.: Jørgen Dencker, or to the Danish Agency for Culture, att.: Torben Malm, H. C. Andersens Boulevard 2, 1553 Copenhagen V. Telephone +45 33 74 51 00.

The geophysical surveys must be published as soon as they are completed and no later than at the end of March 2013.

When the geophysical surveys have been completed, a programme for the implementation of the geotechnical surveys will be determined, ensuring as far as possible that these surveys make adequate data on seabed conditions available to potential tenderers. The programme will be determined on the basis of the results of the geophysical surveys. The organisation of the geotechnical surveys will be in dialogue with potential tenderers on survey needs. The guidelines for performing the surveys as well as a timetable must be agreed with the Danish Energy Agency.

Efforts should be made to publish the results of the geotechnical surveys at the end of 2013.

Item 4. The provision of information about wind, waves and currents etc. (metocean data)

Preliminary surveys of wind, waves and currents (metocean data) have to be carried out at a level which will allow the bidders to submit a sound economic tender for the offshore wind farm in connection with the tendering procedure. Existing knowledge in the two fields should be included if possible.

Kind regards

Martin Lidegaard

Copy: Danish Energy Agency