

Questions and Answers

Here you can find answers to questions the DEA receives continually. General updates on the dialogue between the DEA and relevant stakeholders can be found under Large-scale Offshore Wind Tenders.

The questions are divided into different categories. Even though some of the questions are relevant for more than one category, they will only be added to one category. The questions and answers will continually be organised in order to make navigation easier. The questions are sorted by date.

Everything below the category "General" is regarding Kriegers Flak.

Latest Update on answered Q&As:

26.10.2016:

Several questions have been answered under "*Legal*"

Several questions have been answered under "*General*"

24.10.2016:

Several questions have been answered under "*Legal*"

A couple of questions regarding the grid connection have been answered under "*Grid connection*"

20.10.2016:

Several legal questions have been answered under "*Legal*"

19.10.2016:

A question regarding the CFD has been answered under "*General*"

A question regarding the soil investigation has been answered under "*Geophysical and technical surveys*"

Several questions regarding the J-tubes and other grid related topics have been answered under "*Grid connection*"

10.10.2016:

Questions regarding the liability have been answered under "*Legal*"

07.10.2016:

Questions regarding UXO, boulders and piling have been answered under "*General*"

A question regarding the regulations has been answered under "*Legal*"

06.10.2016:

A question regarding the MetOcean report has been answered under "*MetOcean*"

A question regarding the labour clause has been answered under "*Legal*"

26.09.2016: Several questions regarding the grid connection have been answered under "*Grid connection*"

21.09.2016: Several questions regarding the buffer zones and the boundaries in general have been answered under “*Kriegers Flak – the site generally*”

16.09.2016: A question regarding the LOI has been answered under “*Legal*”

07.09.2016: A question regarding the MetOcean report has been answered under “*MetOcean*”

05.09.2016: A question regarding the UXO has been answered under “*Geophysical and technical surveys*”

24.08.2016: A question regarding area calculation has been answered under “*Licences and Authorisation*”

18.08.2016: A question regarding guaranties of origin for the production of electricity has been answered under “*Legal*”

08.08.2016: A question regarding pinger data has been answered under “*Geophysical and technical surveys*” and questions regarding short circuit etc. has been answered under “*Grid Connection*”

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Currently Pending Questions

In this section currently pending questions will continuously be published and added the date of reception.

When an answer has been prepared, the question and answer will be moved to their respective category and an update will be made in the 'Latest Update' section.

Question (07.09.2016)

Q: With the purpose to align our eventually contract to a degree where it comply with Your, we could be interested to see the contract you and Croon have made together.

Croon Elektrotechniek BV is the company you have chosen to do the electrical installation works on KFA and KFB on the Hollandia shipyard in Rotterdam. We do not need the part explaining the costs. Is this possible?

Q (11.07.2016) Selection requirements

What minimum selection requirements do ENDK and/ or Hollandia state on the contractor that will install the MV-equipment on the OSS? And/ or are there any requirements on the execution?

General

Q (09.02.2016):

Q: On fisheries:

In the preliminary construction permit there no mention of transboundary consultation on fisheries, or needs for concession holder to liaise with foreign fisheries organisations. Can the DEA confirm that the concession holder will not be required to enter into negotiations with foreign fisheries?

A (26.10.2016): The location of the wind farm within the EU-water allows that Danish, German, Swedish and other fishers have equal right on fishery within the Kriegers Flak wind farm area. The Danish AgriFish Agency is still in process to determine whether the Concessionaire is due to contact and enter into negotiation with the foreign fisheries or not.

Q (08.06.2016):

Q: Military radar installations

With reference to requirement 11.1 of the draft model Construction License we have noted that the Ministry of Defence in their EIA consultation response suggests that the specific requirement may be registered as a servitude on the wind farm if demanded by the Defence. We see this as an unnecessary restriction. Please inform if any such registration requirement should be expected imposed on the Concessionaire?

A (24.10.2016): A section (11.4) regarding the military radar installations has been added in the final version of the tender documents: *"The Danish Defence Acquisition and Logistics Organisation may request that this be registered as a restrictive covenant on the offshore wind farm."*

Q (02.05.2016)

Q: Construction activities

The updated guideline for underwater noise and the tender conditions for Kriegers Flak outlines how the verification process of modelled noise impact shall take place in the construction phase. Currently the guidance suggests that the DEA can require a pause in the construction activities after pile 3 has been installed in order to allow the authorities to evaluate the outcome of the noise modelling verification. In a worst case scenario DEA can request a temporary stop in the construction activities until mitigating measures are in place and operating. Keeping an installation vessel on stand-by will drive cost and schedule in the project and should be minimised to the extent possible. What will the Danish authorities do to minimise the possible pause in installation activities between piles 3 and 4?

A (24.10.2016): The regulation to limit the environmental impact caused by underwater noise is established to protect marine mammals from hearing damage. The terms on underwater noise are determined in the model licence for construction in paragraph 6.

The DEA requires the concession holder to prepare a prognosis for underwater noise in order to demonstrate that the realization of the project is in compliance with the regulation. This prognosis must be submitted to the Danish Energy Agency for approval no later than with the detailed project plan. A thorough prognosis is the best way to minimize the risk of interruption(s) in construction phase of the wind farm.

It is however a misunderstanding that DEA can request a temporary stop in the construction activities between piles 3 and 4. If the measurement on the first piles show, that the actual accumulated SEL exceeds the threshold value, the Concessionaire must on own initiative without intervention from DEA take measures to identify the causes of this deviation and perform corrective measures, including adjusting the installation method in accordance with the planned measures for noise reduction determined following condition 6.3.c.

After the first installation round of 4-8 piles is completed, the Concessionaire must prepare a detailed report to the Danish Energy Agency about control measurements and any adjustments to the prognosis and the installation method. Approval from DEA after the first installation round is only demanded if the Concessionaire cannot document compliance with the threshold value through control measurements and prognosis. In this case, the next installation round cannot be commenced until the Danish Energy Agency has approved proposals and forecasts

In in the model licence for construction this is described in 6.5.c. The following is stated: *“When the first installation round including the four to eight piles has been completed, the Concessionaire must prepare a detailed report to the Danish Energy Agency about control measurements and any adjustments to the prognosis and the installation method. If the Concessionaire has found an installation method for which there are control measurements and prognosis which can document compliance with the threshold value for all remaining piles including the ones that are expected to cause the most noise, then the installation work can proceed directly to the next installation round and does not have to wait while the Danish Energy Agency processes the submitted report. In the event that the Concessionaire cannot document compliance with the threshold value through control measurements and prognosis, the Concessionaire must propose substantial methods for reducing underwater noise as well as prepare a revised forecast in addition to the report. Proposals for improved methods for reducing underwater noise are to be submitted to the Danish Energy Agency for approval. The next installation round cannot be commenced until the Danish Energy Agency has approved proposals and forecasts.”*

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 6.3. 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.

Question (18.08.2016) Noise abatement requirements

Q: There are differences in the noise abatement requirements in Danish and German waters, with German requirements being the most stringent. In DEA's opinion how will this impact the construction activities of the Kriegers Flak project? Should the developers assume that Danish noise abatement requirements also will be relevant in German territorial waters?

A (24.10.2016): The Danish regulation is slightly different from the German regulation. The Danish regulation is developed to protect marine mammals from permanent hearing damage, and is based on the work from an expert group. The regulation is revised in 2016 including some new studies and fieldwork on harbour porpoises and seals. The concessionaire will only have to consider the Danish regulation regarding underwater noise. Further information is to be found on page 3 in the document "Reply to the ESPOO response_2nd hearing_2016": http://www.ens.dk/sites/ens.dk/files/supply/renewable-energy/wind-power/offshore-wind-power/new-offshore-wind-tenders/reply_to_espoos_response_2nd_hearing_2016.pdf

Question (29.09.2016)

Q: In case power is delivered to Germany, does this have any influence on the CFD payment? i.e. Will the CFD payment be made in full against the total output delivered into both DK2 and 50H or will there be any adjustments/ changes to the calculation?

The documents state that the wind farm has priority access to the interconnector capacity. Does this apply to Kriegers Flak only or to all wind farms in the region (i.e. Baltic 1/2)?

Is the location flexibility between DK2 and 50H in the hands of the concessionaire or will this be "automatically" exercised according to the Day Ahead market price difference between the locations?

A (19.10.2016): CFD payment will be made full against the power delivered into the connection point, which is part of DK2. Whether the flow of the power goes to Germany or to Denmark does not change the CFD payment. Please refer to "Market and Technical framework for the Danish Kriegers Flak offshore wind park, December 2015" for further information.

Question (09.02.2016): On piling noise, and taking into consideration potential piling activities on the German side:

Q: In terms of mitigating cumulative impacts from simultaneous piling at one or more German wind farms, it is stated in the EIA that "..., special consideration must be given to planning these activities in order to reduce the noise impact on marine mammals." , and "If the future concession holder of the wind farm chooses to use monopile foundations, this will necessitate a separate assessment of options to reduce the impact and the resulting cross border effects." Will the DEA require the concession holder to adapt its noise mitigation to piling activities in German waters, and, in that case, how would that play out in praxis?

A (07/10/2016): Kriegers Flak wind farm will be commissioned in Danish waters, hence only the Danish underwater noise regulations must be considered.

The potential projects simultaneously commissioned in the nearby international waters (German) mentioned in the IEA, and which can cause essential noise disturbance must though be considered in the overall noise generating activities assessment.

The concessionaire must prepare an overview of the potential planned simultaneous pile driving activities in the surroundings of the Kriegers Flak wind farm. In the case of simultaneous activities, the concessionaire must either

contact the other relevant operators in order to coordinate the noise generating activities or take these activities into consideration, when modelling the underwater noise for the Kriegers Flak wind farm (cf. terms about underwater noise).

Question (07.03.2016) Uxo surveys & boulders and excavated materials

Q: It is not specified in the environmental impact assessment or in the tender conditions where boulders and excavated materials can be moved to or dumped i.e. if the location may be inside or outside the Kriegers Flak pre-investigated area. Could the DEA clarify this, if possible prior to preliminary bid?

A (07.10.2016): After the negotiations in May 2016 the condition on boulders in the licence construction 12.2 was reformulated. This condition now states the following: If there are large boulders along the cable corridor, these should be relocated within the wind farm area after agreement with the Danish Nature Agency.

Question (28.01.2016): Boulder removal

Q: During construction of the wind farm installation vessels may be expected to operate outside the borders of the pre-investigation area, hereunder jack-up vessels that require a boulder free sea surface. Will removal of potential boulders for jack-up purposes be allowed outside the pre-investigation area?

A (07.10.2016): Any activities outside the pre-investing area have to be authorized by the DEA.

Question (14.06.2016)

Q: Regarding certification of an offshore wind turbine project it is according to normal praxis to let a third party perform the project certification.

Is the third part certification a requirement or is it possible to be accredited to perform a self-certification?

A (16.06.16): In Denmark only 3 party project certification is valid for offshore. The companies approved for offshore project certification are listed below:

- Germanischer Lloyd Industrial Services GmbH
- Det Norske Veritas (DNV)
- TÜV Süd Industri Service GmbH
- DEWI-OCC Offshore and Certification Centre GmbH
- TÜV NORD CERT GmbH

Q (10.03.2016): Ruling language for operations of OWF

Does DEA have a preferred/mandatory ruling language for the operation of the OWF? Into what detail levels is this ruling language applicable? (Example for detail levels: contracts, concepts, work instructions, daily reports)

A (17.03.2016): As stipulated in the tender conditions, "the Danish authorities may require that case processing for the project be conducted in Danish".

A (30.03.2016): Documents regarding QHSE and documents related to regular maintenance of the platform (E.g. safety procedures and work instructions) must be kept up to date in English and Danish. Danish being the ruling language. Daily reports will depend on the nature of the daily report, but is expected to be in Danish unless otherwise agreed.

General documents, contracts and concepts must be in English only. Contact to the ENDK Control Room and System Operation will be executed in English as the ruling language.

Q: Do you have any information on the number of hours of negative electricity prices in Denmark?

A: [You can find an historic overview of negative electricity prices here.](#)

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: Are there demands on specific type of turbines or other limitations in regards to the tenders?

A: As a consequence of the EIA, there will have to be made choices in terms of turbines. The EIA is conducted on the basis of a so-called "worst case scenario" which means that all known equipment and infrastructure within the relevant timeframe of the tender will be covered by the EIA. In order to make sure that all relevant technologies are covered by the EIA the DEA is planning to send the EIA project description with the technical requirements specifications in a hearing with the potential bidders. This will ensure that all relevant and realistic choice of equipment are covered by the EIA.

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: Are there any restrictions on minimum distance from wind turbines and cables to archeological findings and existing cables? Is it possible to get information on the needed measures in regards to potential archeological findings and the costs of these measures?

A: The EIA will include assessment of the marine archaeological interest in the area. Before the EIA is complete and the marine archaeological assessments have been approved by the Danish Agency for Culture, it will not be possible to provide information about possible buffer-zones.

Kriegers Flak - the site generally

Question (10.06.2016): 1000 meter fly zone, WTG and EEZ borders

Q: To understand the various boundaries towards borders, sub-stations etc, we have the following questions:

1. There is no limitation on the tender documents and updated tender documents with regards to wind turbine blades crossing the boundary. It only states in the updated tender conditions that the pile structure shall be within the site boundary.

a. Can this be confirmed?

b. With regards to the 1000 meter fly zone around the Substation “wind turbines must not be erected within a distance of 1000 m from the individual transformer platform.” Does this mean that we can place the turbine foundation 1000 meters from the substation centre point or the centre edge?

c. With regards to the 1000 meter fly zone around the Substation this will also mean that the rotating blades will be within the 1000 meter boundary of the no fly zone?

2. Turbine must be placed with a minimum distance of 500 metres from the Swedish and German EEZ borders. The minimum distance of 500m to the EEZ border must be measured from the centre of the foundation, which is represented by the coordinates of the wind turbine. Again the blades can go into the 500 meter zone, please confirm?

3. Positioning the WTG at the site boundary rises the discussion of the inter array cables. If the WTGs are placed at the border this might result in the following situation in regards to the cables:

a. 500 metres from the Swedish and German EEZ borders. Is this acceptable?

b. Into the central restricted area in the central area between the site. Is this acceptable?

c. If any scour protection, can they cross these borders?

With regards to installation: Are there any limitation or requirements for installation vessels and the site boundary which will limit the WTG and cable layout?

4. With regards to installation: Are there any limitation or requirements for installation vessels and the site boundary which will limit the WTG and cable layout?

A (21.09.2016):

1. a. Yes, it can be confirmed that the coordinates of the center of the foundation structure define the reference point to be considered regarding the distance to any buffer zones. The rotor blades are allowed to cross any boundaries defining the buffer zones.

b. The 1000 m fly zone is calculated between the coordinates of the center of the transformer platforms and the coordinates of the center of the foundation.

c. It is correct that base on the above assumptions, the rotor blades of some wind turbine may cross the border to the 1000 m fly zone.

2. It is correct that the coordinates of the center of the foundation must be consider to estimate the distance to the EEZ borders, hence, the rotor blades of some wind turbine may cross the boundaries of this 500 m buffer zone.

3. a. The inter array cables can only be placed at a distance of minimum 500 m from the EEZ borders.

b. Inter array cables are not allowed to be placed in the area reserved to the raw material excavation area between the western and the eastern sides of the site.

c. Yes, the scour protections can cross the borders, since the coordinates of the center of the foundation define the reference point.

4. In general, work outside the project area during the construction phase is allowed. However, as described in an answer from 27 May 2016, in general it is not acceptable to have an overlap between jack-up zones and the buffer zones around the export cables and the transformer platform. The buffer zones are meant to protect Energinet.dk installations etc. However, should the concessionaire want to use a specific location within the cable buffer zone, then Energinet.dk is ready to consider few specific exemptions. Regarding the platform buffer zones, it is the executive order BL 3-5, which is the governing design code for the helideck an obstacle free zone of 1000 meter around the helideck is required, hence the use of a jack-up vessel within this proximity shall be coordinated with Energinet.dk.

Question (08.05.2016): Buffer zones - foreign waters

Q: Does the DEA have any information on expected buffer zones in foreign waters as regards potential future Swedish and German wind farms in the Krieger's Flak area?

A (21.09.2016):

The DEA is not responsible of the regulations in foreign waters. Only the 500 m buffer zone to the Swedish and German EEZ borders (as described in the tender documents) is regulated by the DEA. The DEA has no information on any potential buffers applied by neither the Swedish nor the German authorities in their respective national waters.

Question (01.06.2016)

Q: Are there any restrictions on controlled deployment of anchors used for positioning inside the defined safety zones for Export cable routes (200m) and Electrical Offshore Substation safety zone (1000m)?

If not, please specify minimum clearance between anchor drop point and export cable in case of:

i. **Anchor line stretching above export cable**

ii. **Anchor not stretching above export cable**

A (08.06.2016):

i. No anchoring is allowed within safety zone without prior approval of anchoring plan from Energinet.dk.

ii. It is not allowed having anchor line stretching through safety zone before prior approval of detailed anchor plan

The same restrictions shall be applied to the Baltic Cable, which crosses the westernmost part of the Kriegers Flak area. Any request regarding the Baltic cable should be presented to:

Jan Brewitz

Managing Director Baltic Cable AB

- Tel +46 300 562 491

- Mob +46 705 855 469
- Fax +46 300 562 495

Baltic Cable AB
Gustav Adolfs Torg 47
SE-211 39 Malmö, Sweden

Q (02.05.2016) Jack-Up Zones:

A technical option for turbine erecting is it to use a so called jack-up vessel. Part of the planning process is it to define jack-up zones around a turbine location. The Tender Conditions outline certain buffer zones around the transformer platform, park boundaries towards EEZ border as well as along export cable routes.

a. If a turbine location is supposed to be next to such a buffer zone (transformator platform/cable/park boundary/EEZ) – from a DEA perspective – is it acceptable to have an overlap between jack-up zones and buffer zones as above? Hence would jacking in all directions of the Foundation still be possible?

b. Are there any geometrical restrictions in regards to jack-up zone in case on overlap is acceptable, i.e. 200m jack-up zone around each turbine location?

A (27.05.2016):

a. In general it is not acceptable to have an overlap between jack-up zones and the buffer zones. The buffer zones are meant to protect Energinet.dk installations etc. However, should the concessionaire want to use a specific location within the cable buffer zone, then Energinet.dk is ready to consider few specific exemptions. Regarding the platform buffer zones, it is the executive order BL 3-5, which is the governing design code for the helideck an obstacle free zone of 1000 meter around the helideck is required, hence the use of a jack-up vessel within this proximity shall be coordinated with Energinet.dk.

b. To be discussed in specific cases if any.

Q (02.05.2016) Coordinates and buffer zones

Could you please clarify the actual coordinates of the wind park area with buffer zones for the ENDK export cables and the excavation area. Attached is the drawing of the two wind farm areas from the Tender Conditions from 17. March and the four cable corridors. In section 3.2 there is defined a buffer zone of at least 500 m on either side of the export cable. As shown in the drawing below these buffer zones clearly interfere with the wind farm areas. We expect this not to be intentional and ask you for a clearance of the question as soon as possible.

A (27.05.2016): The text in section 3.2 and 3.3 does not reflect the correct demands to buffer-zones between the export cables and the wind turbine area. The correct buffer-zones are a distance of minimum 200 meters on either side of the export cable as shown in the figures and the coordinates of the windfarm area. This is in line with the standard protection area defined in the Danish Cable executive order. The cables in the figure on page 81 (shown with yellow dashed lines)

going from the platform KFB towards north are not yet planned for, and hence it does not impose any changes to the wind farm area.

The text in the tender conditions will be updated accordingly.



Q (02.05.2016) Trelleborg-Fehmarn cable

On our company owned map information regarding the Baltic Sea, we have also discovered an umbilical-cable, possibly for telecommunication? called the Trelleborg-Fehmarn cable. The cable is supposed to be operative. The cable is referred to be mapped in the Baltic digital map no. 180 and is visible in turquoise in the map below. This cable is not referred to in the Energinet pre-investigations as far as we can see. Could you please give information as soon as possible about the existence and operation of this cable? We would also like to know who is operator of this cable, as we do not want to disturb it?

A (27.05.2016): Neither DEA, the Danish Maritime Agency nor Energinet.dk have any information about this cable. The Danish Energy Agency would appreciate if any further information about this cable could be provided

Q (20.05.2016): Potential future gas pipeline

We have noticed on the homepage of Energinet.dk, that they are undertaken a feasibility study for a gas pipeline to Poland LINK. Can you confirm that this pipeline will have no effect on the Kriegers Flak wind farm area? Are coordinates for the planned pipeline trajectory public available?

A (20.05.2016): Energinet.dk can confirm, that this pipeline project will have no effect on the Kriegers Flak wind farm area. There is currently no planned pipeline trajectory public available. The tenderers can exploit the complete wind farm area without any considerations towards the pipeline project. Should parts of the wind farm area be left unexploited by the windfarm Concessionnaire, these parts may be used afterwards for the pipeline, if it does not in any way introduce any hazards to the wind farm.

Q (21.04.2016): Can DEA provide an official geographical card, in which the windfarm Kriegers Flak, the Danish EEZ line and the 12 NM line is shown? We need to have the information for sure which part of the windfarm will be within and which part out of the 12 NM zone. In addition, we need to have the information for sure that the total windfarm is within the Danish exclusive economic zone (EEZ).

A: The required map, provided by Energinet.dk is available [here](#).

Q (28.01.2016): Coordinate system

Could you please inform which coordinate system is used in the draft tender material/model licenses?

A (14.03.2016): The coordinate system UTM, Datum ETRS89 and Zone 32N is used in the tender materials/model licenses.

Q (10.03.2016): Sand mining area:

(a) Are there restrictions for vessel traffic of concessionaire (both during construction and operation), like e. g. a “no passage obligation”?

(b) Is there mining ship traffic to be expected, and what priorities has Concessionaire to bear with (e. g. “mining comes first”)?

A (11.03.2016): The vessel traffic in the extraction area is not limited for the concessionaire, neither during the construction, nor for the operation of the wind farm. Though, the use of the extraction area and sailing depends entirely on whether or not sand extraction will take place while the turbines are built. In this case, the general maritime rules are applicable.

Q (28.01.2016): Division of wind farm area

According to the draft tender conditions (page 10) the offshore wind farm must take up no more than 132km² in total. Please inform how this is divided between the east and west part respectively?

A (10.03.2016): There is no fixed area division to be used on the western and eastern part of the wind farm.

Q (28.01.2016): 500 m distance to EEZ border

According to the technical project description turbines must be placed with a minimum distance of 500 metres from the Swedish and German EEZ border. Further, in the Q&A log (answer dated 08.05.2014) it follows that the minimum distance of 500m to the EEZ border must be measured from the centre of the foundation, which is represented by the coordinates of the wind turbine. This minimum distance of 500 m is not mentioned in the draft tender material - please inform whether it should still be taken into consideration?

A (10.03.2016): It is correct that a 500 m distance to the German and Swedish EEZ border must be kept. This will be included in the next updated version of the tender conditions.

Q (28.01.2016): Incentive for completion

According to the draft tender conditions (sec. 8) min. 95% of the of the wind farm must be connected to the grid 1 January 2022. Please inform if it is 95% of 590MW, 600MW or the actual installed capacity?

A (10.03.2016): The 95 % of the wind farm to be connected to the grid by January 1st 2022 is calculated on the basis of the concession holders installed capacity as described in the detail project. If the agreement is of an installed capacity of 590 MW, then there must be at least 560.5 MW connected by January 1st 2022

Q: On the ferry route

In the EIA it is stated that "... the offshore wind farm may have an impact on the ferry operations between Trelleborg and Rostock/Travemünde, because it may cause a longer ferry route to be necessary." Can the DEA elaborate on the expected consequences, if any?

A (10.03.2016): The ferry operation between Trelleborg and Rostock/Travemünde will neither have consequence nor impact on the Kriegers Flak wind farm's concession holder.

Q (09.02.2016): Boulder densities

I kindly request the shapefiles for boulders and benthic habitats of the Kriegers Flak shown in the EIA on page 79 (printed version).

A: Please, find the shape files for the boulders and benthic habitats of the Kriegers Flak. The coordinates are in UTM32N, WGS84.

[Shapefiles for boulders and benthic habitats of the Kriegers Flak](#) (zip-file).

Q (07.01.2016) The Baltic Cable

According to the EIA there are no subsea cables, power cable or gas pipelines in the pre-investigation area. Coordinates for a cable (the Baltic Cable) in the far west of the pre-investigation area are, however, published on the Q&A web-log on 23-09-2015. Could you please inform about the nature of this cable, if the cable is live/in use and if relevant a potential safety zone to be respected?

Further, we have become aware of a potential gas pipeline just south of the pre-investigation area. Could you please inform about the status of the pipeline and if relevant a potential safety zone to be respected?

A: The DEA can confirm that the Baltic cable is in use.

The two enclosed spreadsheets contain different set of coordinates. The first one, "KF Krydsning med Baltic Cable.xlsx", contains the exact coordinates for the crossing of the Baltic Cable with the 200 kV export cables by Energinet.dk. The second one, "BalticCable ENLatLonKPBDDepth etc"., contains the exact coordinates for the position of the Baltic Cable in the Kriegers Flak pre-investigation area. The coordinates follow the center line of the protective zone around the cable.

The cable is protected by a statutory safety zone of 200 meter to both sides. Trawling, anchoring and other soil-related activities are therefore not allowed within this protective zone. This also means that the area is not available for the construction of the Kriegers Flak offshore wind farm without prior agreement with the owners who are Baltic Cable AB, Gustav Adolfs Torg 47, 211 39 Malmö, Sweden www.balticcable.com.

Energinet.dk is in the process of entering such an agreement with Baltic Cable AB concerning the crossing of the export cables from Kriegers Flak. Currently Energinet.dk is developing the technical solution as well as doing work on the legal agreement itself. Energinet.dk expects to reach a formal agreement in the second quarter of 2016.

The DEA apologizes that the information regarding the Baltic cable has not been published earlier in the process.

The gas pipeline project crossing the south-west part of the pre-investigation area is at a very early stage of development and has no effect on the Kriegers Flak wind farm.

Please, see the two maps (pdfs) that illustrates the position of the cable in the Baltic Sea and where it crosses the far-western part of the pre-investigation area.

[Overview Chart-baltic Cable HVDC \(PDF\)](#)

[KF_Baltic Cable \(PDF\)](#)

[BalticCable ENLatLonKPBDDepth \(xlsx\)](#)

[KF Krydsning med Baltic Cable \(xlsx\)](#)

Q (06.01.2016): Radars

1. As described in the EIA background report on radars and radiolinks as well as in the final EIA report there is a suggested need for mitigating actions in order to safeguard that the Danish Kriegers Flak Offshore Windfarm does not interfere with domestic and possibly foreign defense needs. When can the prequalified companies expect to get a description of scope and costs for the mitigating actions

The Danish Defense - as part of the EIA - has provided a description of the estimated scope and cost of any necessary mitigations actions in relation to Danish radar installations.

The total cost – from a worst case perspective – is estimated to be DKK 24 mill for Kriegers Flak.

The cost relate to the following anticipated mitigation actions:

- Complete replacement of the radar on Møn: DKK 20 mill.
- Two gap fillers on Stevns or close to the farm: DKK 4 mill

These are worst case prices.

The concessionaire will only be required to compensate the Danish defense on the basis of documented costs in relation to concrete mitigation actions undertaken by the Danish defense.

Further, the compensation requirement does not interfere with the construction timeline as the mitigation only takes place after the farm has been built.

In the assessment of the DEA it is highly unlikely that the concessionaire will be required to compensate foreign defense authorities, including authorities in Germany and Sweden, for any negative effect Kriegers Flak might have on their radars.

The DEA is in the process of hearing Germany and Sweden as part of the second regional EIA hearing procedure, the so called ESPOO-hearing procedure.

In the first ESPOO-hearing Sweden noticed the negative impact on the country's Defense radars, but made no specific demands on the grounds that the farm is being built in Denmark. Germany made no remarks.

As part of the finale and on-going ESPOO hearing the issue of radar has been highlighted separately with the clear message that the DEA does not expect to introduce rules that require the concessionaire to compensate foreign defense authorities.

The hearing procedure closes middle of February. At this point the DEA will make a final statement on the question of compensation requirements towards foreign governments.

Q (02.11.2015): Regulations

Q: Do we need to pay any fees for emergency helicopter services?

A: ENDK does not provide emergency helicopter services and the wind farm owner must contract his own service.

Q: Are there any requirements for people tracking systems or permanent maritime surveillance?

A: ENDK demands that a PLB (Personal Locator Beacon) is carried on all locations on the site where a lifesaving vest is mandatory.

Q (23.09.2015): Could you please make the coordinates for the Baltic Cable identified in the far west of the pre-investigation area available?

Coordinates for the Baltic Cable can be found [here](#).

Please notice that the coordinates are in ED-50 and not in WGS-84.

The Baltic cable is shown in the following nautical charts: 191, 132, 186, 187, 188, 125, 126, 180.

Q (26.06.2015): Radars

Is it possible for the DEA to accelerate the clarification of the outstanding issues connected to radars:

Is it really necessary with racons at the west side of the wind farm to mitigate disturbances of defense radars at Stevns and Peberholmen?

A: Based on the pre-investigations and consultation with the competent Danish authorities, the need for racons on Kriegers Flak OWF must be expected.

If this is deemed necessary, can they be mounted at the sub-station of Energinet, as it will be quite costly to establish purpose made foundations for the racons?

A: The option of establishing racons on the sub-station is currently being investigated and a more specific answer can be given before fall 2015.

Would that be a sufficient solution for the Defence interests, as the Technical description now indicates the Racons to be placed west of the wind farm?

A: Based on the current knowledge and consultations during the pre-investigations and the EIA: Yes, this is expected to be the case.

Would the Racons also be sufficient to ensure the needs of the ship traffic?

A: Based on the current knowledge and consultations during the pre-investigations and the EIA: Yes, this is expected to be the case.

How should the developers handle needs from other foreign authorities in addition to the Danish authorities? There are in total 5-6 defence radars that may be affected by the wind farm in addition to the needs for ships possibly demanding mitigating actions. The costs could be substantial. Could these negotiations be handled by the DEA?

A: The DEA will, together with Energinet.dk, make further consultations with the defenses (Danish, Swedish and German) in autumn 2015. Based on this more specific information regarding requirements will be outlined.

Q (26.06.2015): Time Schedule and Detail Project

Prognosis for under water noise and program for measurement and plan for noise mitigating actions. Unless other information is given is it correct to utilize The DEA Guideline for under water noise from December 2014?

A: Based on the current state of the EIA and the analysis of the underwater noise at Kriegers Flak, it is expected that a guideline like the one setup for the Horns Rev 3 project, will required for the Kriegers Flak. However, the analyses are still under review by the Danish authorities and a final decision about a guideline for the Kriegers Flak project cannot be expected before fall 2015.

What is the definition of «construction work» within the Contract, is it offshore works at site, such as site preparation or actual installations, or is it the construction and production of Wind turbines, towers, electrical cables etc?

A: 'Construction work' is, in terms of the licence for construction, defined as the offshore construction work on the OWF site.

Vendor information, does the DEA expect to be informed about main contractors for turbines, cables and marine installations?

A: Yes.

Inter array cabling/Internal grid connection, which information does the DEA expect, the planned and factual layout?

A: Prior to the start of offshore construction work, the concessionary must submit a detailed project plan which must include information (maps and coordinates) of the position of the turbines and the interarray cables (between the turbines and to the platform connection).

After finalizing the construction work all installations must be documented (maps and coordinates) in e.g. 'as built survey' documentation.

Markings, does this apply to the regulations of the Danish Marine Agency (Søfartsstyrelsen) and Aviation markings? Or are there other requirements for the supply of information?

A: The navigational markings (maritime) must be approved by the Danish Maritime Authority (Søfartsstyrelsen) – guidelines are provided in their regulations and in the tender material. The aviation markings must be approved by the Danish Transport Authority (Civil Aviation section). No other requirements regarding markings are expected.

Layout and distances, does that mean in respect to the safety zones and limitations such as 44km²/200 MW installed capacity?

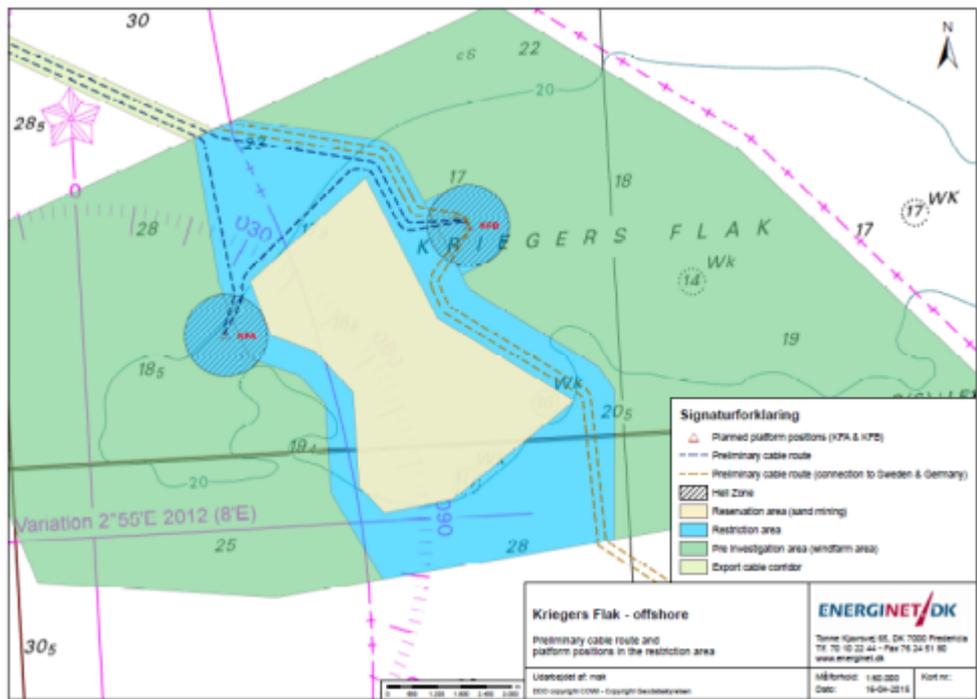
A: Layout means positions of turbines.

The approval of the Detailed project, what does that imply, is it guaranteed, that it will take no longer than 2 months? What kind of uncertainties are there in the time estimate, i.e. how long in advance are we required to send the application in order to ensure, that there will be no costly delays. How much slack is necessary for approval?

A: It is the clear expectation of DEA, that the DEA will be able to approve the detailed project plan within 2 months after the detailed project plan with all necessary information and documentation is handed over to the DEA. However, the concessionaire is welcome to submit the detailed project plan more than 2 months before the construction works are expected to start, to have an approval in good time. This process will typically be agreed in advance between DEA and the concession owner.

Q (25.06.2015): Will there be any potential issues or restrictions with regards to the Fehmarn Belt tunnel during the construction of Kriegers Flak sine both are scheduled to be constructed 2019-2021?

A: During the construction of the Fehmarn Belt there might be a need of extraction of sand inside the extraction area on Kriegers Flak. The area has been established as a restriction zone in the planning of offshore wind turbines, see map below. No further issues or restrictions are expected to be caused by the simultaneousness of the two projects. The DEA will maintain close contact to the company responsible for tendering the construction work on Fehmarn Belt, Femern A/S, in order to be able to brief bidders about the actual plans for the use of the restricted area.



Q (25.06.2015): How much capacity can be moved between the substations in the east and the west area, 50MW, 100MW, 200 MW?

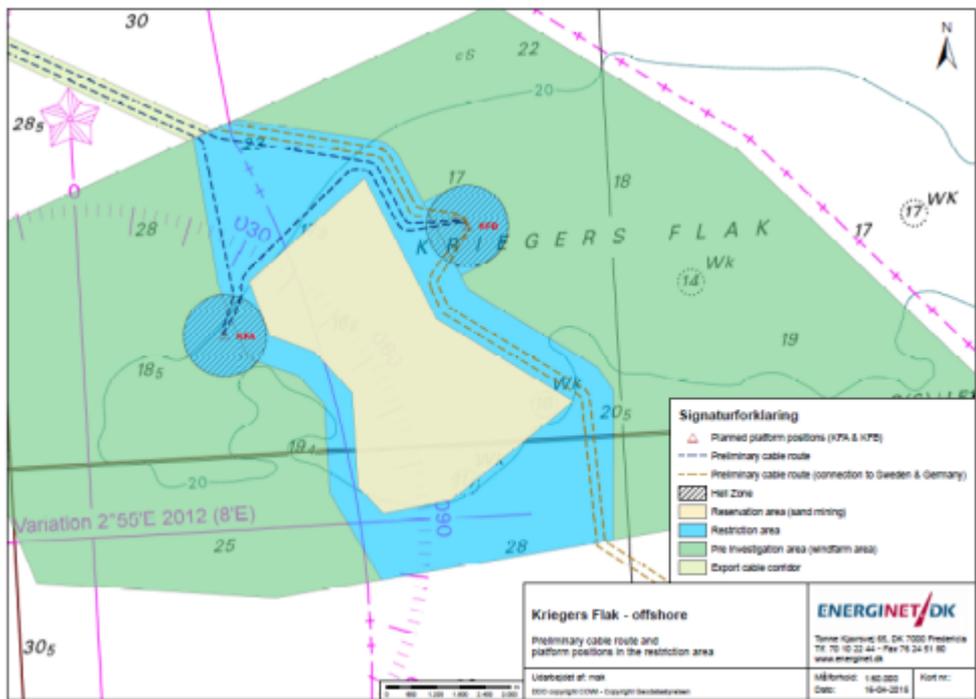
A: The transformer platform on the western part of Kriegers Flak has a capacity of 200MW. The transformer platform on the eastern part of Kriegers Flak has a capacity of 400MW. These capacity limitations must be observed during operation. If the OWF developer wishes to install more capacity or relocate capacity from either of the two park areas, e.g. more than 200MW on the western part or more than 400MW on the eastern part, a possibility could be to arrange for an array cable connection to the platform in the other park area to comply with capacity restrictions.

If the developer wishes to relocate capacity from either of the two areas, attention must be given to environmental impact assessment. Based on the turbine-layouts prepared for the EIA, it seems most likely, that the developer could have an interest in relocation turbines from the eastern part to the western part of Kriegers Flak. It is the conclusion of the preliminary assessments, done by the EIA consultant and Energinet.dk, that such a relocation of 5-10 turbines from the eastern to the western part of Kriegers Flak, will not be in conflict with the environmental impact assessment prepared for the Kriegers Flak OWF and can be applied for and approved by the Danish Energy Authority in the Detailed Project (cf. Tender material for Kriegers Flak).

Q (25.06.2015): Is there anything else within the pre-investigated area (wind farm area) e.g. helicopter zones, environmental restrictions etc that will limit the wind farm area in addition to what is shown on the map published by DEA on the 23rd of April 2015?

How much safety distance is needed towards archaeological findings? Is there a different safety distance depending of the importance of the finding?

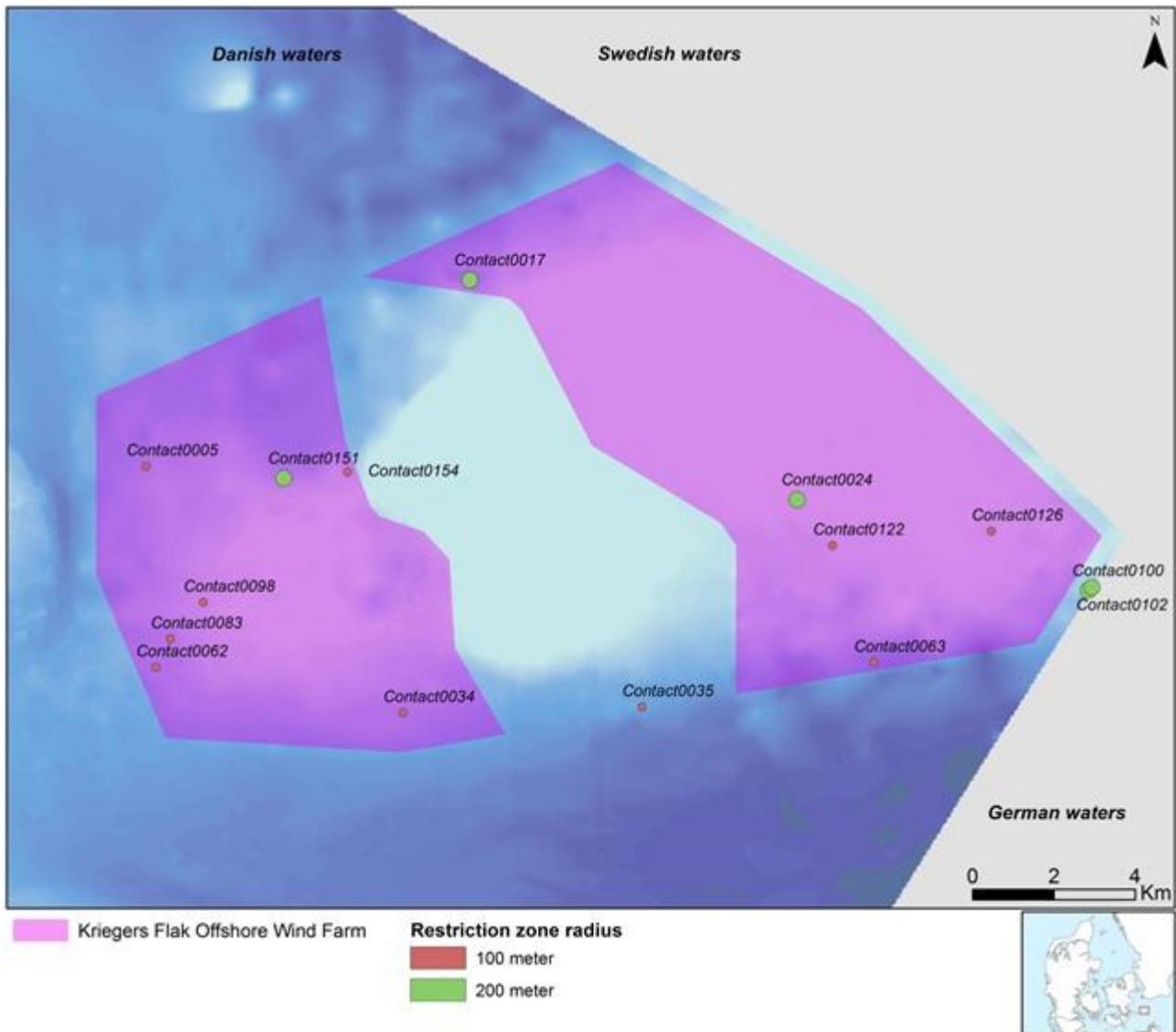
A: The map published by the DEA on the 23rd of April 2015 shows the areas which are 'cleared' for the OWF (green areas on map below). Inside these areas there are will be no limitations, except for the protection zones around 15 identified objects of marine archaeological interest. The protection zones are agreed by the Danish Agency for Culture and can be adjusted (deminshed) individually once the layout of the OWF and the cables are known.



The safety zone around archaeological findings is in generally 200 meters distance from the finding. Specific size of a safety zone can be agreed with the Danish Agency for Culture.

During the pre-investigation on Kriegers Flak 15 archaeological objects have been identified. The map below shows the position of the marine archaeological objects identified during the pre-investigations.

The objects are surrounded by either a 100m or a 200m protection zone. The coordinates and protection zone of each for the 15 objects are listed in the [table here](#).



Q: Does the exclusion zone include a buffer outside the actual area for sand excavation? Since ships can drift it is recommended to have 1-2 km of buffer zone between the dredging vessels and the closest turbine.

A (28.08.2014): Yes, the exclusion zone includes a buffer zone around the sand excavation area.

Q: Could/will there be any dredging activities during the construction period? (2016-2020 for HR3 and 2017-2020 for KFL).

A (28.08.2014): There are no areas for dredging activities in the proximity of the Horns Rev 3 site, so it cannot be anticipated to be a problem. On the Kriegers Flak, it is assumed that sand excavation for the Femern Belt Link will be taking place in parts for the period 2017-2020. Specific information on this will follow as soon as it is available.

Q: It is required to have a helicopter corridor within the Kriegers Flak windfarm or will the sand excavation zone act as a helicopter corridor to the substations?

A (28.08.2014): Energinet.dk plans to use the zone of the sand excavation area. Furthermore, there will be a 1000 meter exclusion zone (helicopter corridor) around the single platforms.

Q: When will the new locations of the substations for Kriegers Flak be released?

A (28.08.2014): Energinet.dk expects that the locations of the substation, including helicopter corridors, for Kriegers Flak can be made public by the end of October 2014.

Q: Please explain the new AC electrical concept.

Will the array and export voltage levels remain the same at 33 kV?

How will the technical interface with 50 Hertz look like without the HVDC substation?

A (28.08.2014): We are not able to deliver explanations at the moment but await further analysis and dialogue.

Q: How much distance should be kept to the Baltic Cable (between Sweden and Germany) that runs just in the outskirts of the western Kriegers Flak area?

A (19.06.2014): The distance to the Baltic Cable must be at least 200 meters according to the 'Order on Protection of Submarine Cable and Pipelines' (Kabelbekendtgørelsen).

Q: Will the new grid connection concept for Kriegers Flak have an impact on the area available for the offshore wind farm?

A (19.06.2014): Energinet.dk can confirm that an AC grid connection will shift the position of the two offshore AC platforms to new positions. A possible interconnector to Germany will introduce a third offshore platform. Cable routes will be relocated to meet the new platform positions. However, the overall areas available for the location of the offshore wind farm will not be changed. In August 2014 an updated offshore project description will be published and the new positions for the two AC platforms will be announced.

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-tubes at 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 bell 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 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.

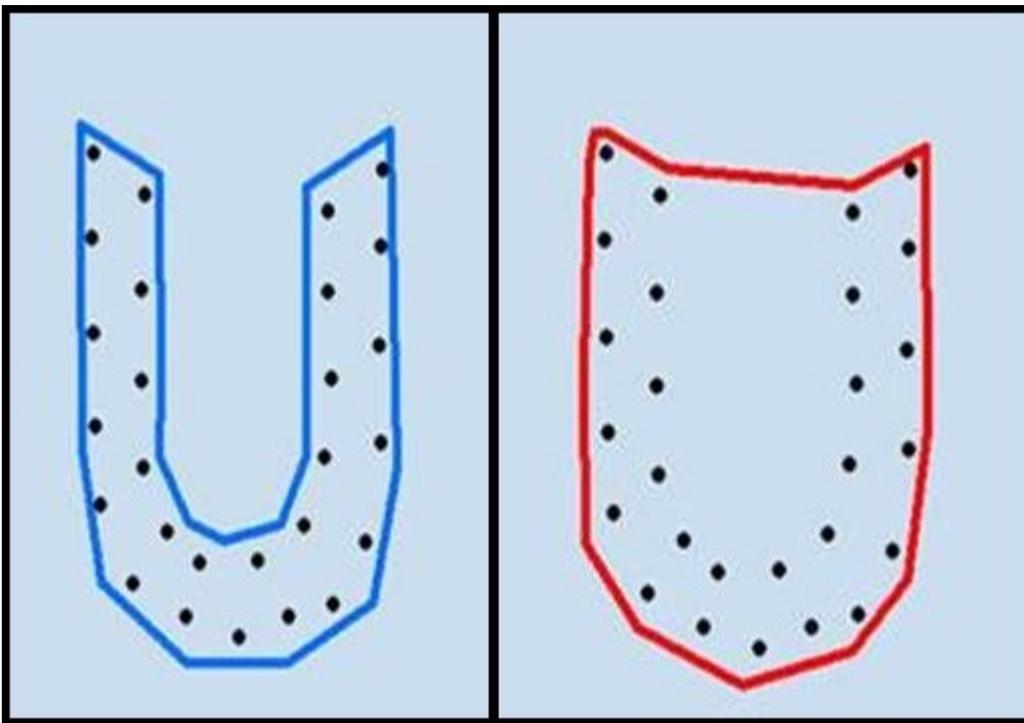
Re Kriegers Flak 200 MW

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: 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: From where on the turbine (center, wing tip etc.) is the distance measured to the EEZ border of Sweden and Germany that must be 500m minimum?

A (08.05.2014): The minimum distance of 500m to the Swedish and German EEZ border must be measured from the center of the foundation, which is represented by the coordinates of the wind turbine.

Q: Is the same placement rules applicable towards the outer limits as towards the sand excavation area between the project areas.

A (08.05.2014): On the Kriegers Flak, the wind turbines (center of foundation) must NOT be placed outside the areas (72,9km² to the West and 100,4 km² to the East, both green on the map [Kriegers Flak pre-investigation area April 2014](#)) designated of the wind farms.

Q: Will the feed in tariff be given directly from the first kWh of produced power or 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: Will there be any minimum distance requirement between the Kriegers Flak WF and the Baltic 2 WF?

A (08.04.2014): The minimum distance between the wind turbines on the Danish part of Kriegers Flak and the EEZ-border towards Sweden and Germany must be 500 metres.

[A map of the area can be found here.](#)

Q: Is there any agreement of minimum distance between Kriegers Flak and Baltic 2 (German border)? If not, is there any suggestion on this?

A (08.04.2014): There is no agreement on the minimum distance between the OWF at Kriegers Flak and the Baltic II OWF. The minimum distance between the wind turbines on the Danish part of Kriegers Flak and the EEZ-border towards Sweden and Germany must be 500 metres.

Q: In order to evaluate risk to cables we are looking to obtain reports / data on the following:

- **Intensity of fishing effort in and around Kriegers Flak development site (how many trawler movements per year)**
- **Type of fishing methods used in and around Kriegers Flak development site: trawling gear, likely penetration into the seabed**

A (19.12.2013): As part for the environmental impact assessment for the Kriegers Flak project, detailed studies of the fishing activities in the area are conducted and reported.

The report will be made public together with the EIS report prior to the Public Hearing. Energinet.dk is cooperating with the relevant authorities and parties to try to make the final draft of the report available as soon as possible. At the moment (December 2013) the timeframe for such a final draft report is expected to be May 2014, but can be subject to changes during the first months of 2014.

Q: Do you hold copies of the following reports in Study ID 08-001 (p. 62): DONG Naturgas A/S. Baltic Pipe, Offshore Pipeline. Environmental Impact Assessment, October 2001.

A (19.12.2013): The report can be found here:

[DONG Naturgas A/S BalticPipe, Offshore Pipeline Environmental Impact Assessment October 2001](#)

Q: Study ID 08-002 (p. 63): Ministry of Food, Agriculture and Fisheries – Yearly Fishery Statistics. The entry mentions some contacts in the Danish Directorate of Fisheries. Are we at liberty to use those contacts, and/or pass on to a Third Party Contractor?

A (19.12.2013): Yes.

Q: On the eastern part of Kriegers flak, would it be possible to have two separate 44 km² areas rather than one 88 km² area?

A (12.12.2013): The DEA will analyze the option further and among other things look into the consequences for marking at sea. Following this work the DEA will announce which options are available to the bidders. As a general rule the DEA aims at providing the bidders with as much flexibility as possible in so far as it does not conflict with other interest or legal requirements at sea.

Q: One main requirement is that the blade tip shall be a min. 23m above MSL. Would it be possible to decrease this requirement since this would decrease costs?

A (12.12.2013): The DEA notes the request for more flexibility in terms of increasing the distance between the MSL and lower wing tip. The Danish Maritime Authority (Søfartsstyrelsen) has stated that the requirement of a minimum height from the blade tip to sea level is expected to be 22 m. The corresponding height for Horns Rev 3 is expected to be 21,5 m.

Q: Previously it has been written that the maximum capacity for Kriegers Flak has been 610 MW. On page 14 is written that 600 + 2 WTG is allowed meaning maximum 620 MW. Is this correct? In addition regarding a 7 MW turbine, is it 595 + 14 MW or is it 602+ 14 that is allowed? What is the minimum capacity allowed?

A (12.12.2013): The DEA has been considering several scenarios, including the ones mentioned in the "Invitation to dialogue" published before the summer, as the DEA will no doubt allow for some flexibility in terms of the minimum and maximum capacity allowed. The figures in the technical project description represent a preliminary technical scenario for the purpose of providing a flexible framework for the EIA . The exact figures, however, will be determined in the contract notice for Kriegers Flak.

Legal

Question (08.08.2016)

Q: Scope of insurances

Can you specify the scope of insurances required under the construction licence agreement (i.e. clause 1.17) and the pre-investigation licence agreement (clause 3.10) with regard to sum insured, the kind of risks and damages that shall be covered, maximum deductibles and other conditions influencing insurance costs?

A (26.10.2016): In general, the Concessionaire is expected to take out an - in accordance to industry practices – adequate insurance. The DEA cannot give a firm answer in regards to sum insured or maximum deductibles. Regarding risk and damages, the insurance must cover any damage which the Concessionaire or other persons acting on behalf of the Concessionaire may cause to any third party. It is possible, that the DEA will require that the insurance covers property in the insured's care, custody and control.

Q (21.06.2016)

Q: Liability under operational agreement with Energinet.dk

The liability regime governed under the collaboration agreement (in Danish: "Samarbejdsaftale under Etablering") to be entered into between the Concessionaire and Energinet.dk in relation to operation and safety for Kriegers Flak AC og Kriegers Flak CGS is described in appendix 6.1.2 of the tender conditions.

From the terms, we note that, during the operation phase, the parties are to be liable to each other for damages caused in accordance with general rules of Danish law capped at an amount to be agreed between the parties. The liability also independently extends to the Concessionaire's operator of the wind farm as well as hired third part subcontractors of both parties.

We understand that the reasoning for choosing general rules of Danish law as opposed to the more widely accepted knock-for-knock liability principle is to avoid having Energinet.dk becoming liable for damages caused to their assets by someone other than themselves as they will not be using the substation during the operations phase.

Given the potential substantial liability for damages caused by simple negligence and the challenges the Concessionaire, operator and/or third party sub-contractors might have in obtaining proper insurance we kindly ask the Danish Energy Agency / Energinet.dk to confirm the following:

(i) Whether Energinet.dk will be requiring the same liability from its own sub-contractors during the operations phase should they need to access the platform;

(ii) The expected size of the liability cap; and

(iii) Whether Energinet.dk would consider offering to extend its own liability insurance coverage regarding damage caused to the substation to also cover the Concessionaire, the operator and its sub-contractors during the operations phase.

A (26.10.2016):

(i) The liability regime between Energinet.dk and the contractors performing the work in the Kriegers Flak AC is based on a Knock for knock principle with a fault based liability up the deductibles of the CAR insurance.

(ii) The following text is taken from the Appendix 6.1.2 of the Collaboration Agreement during the Construction phase (Energinet.dk) Kriegers Flak, December 2015:

o Limitations of liability

§ 8.2 exclusively covers direct loss (and therefore does not cover consequential damages and indirect loss, among other things) and can at most cover a sum of up to DKK [insert amount] per claim year (the year the injurious event takes place). However, this limitation of liability does not apply if the property damage is caused with intent or because of gross negligence."

The above yellow highlighted amount to be inserted is 20 million Euro.

(iii) The answer is no. In ENDK's annual insurance program our liability insurance cannot be extended to cover liability for any personal or company outside Energinet.dk.

Energinet.dk will by itself require insurance cover from the Concessionaires for damage to our property during operational phase.

Any damage to the substructures during the construction and maintenance period will be covered by the CAR insurance until TOC.

Question (09.09.2016)

Q: Please could the DEA confirm that any payments made by Energienet.dk pursuant to the Concession Agreements (or to the extent any payment is made by DEA) to the Concessionaire can be made directly into a bank account held outside Denmark?

A (26.10.2016): Yes. It will be possible to make payments directly into a bank account held outside Denmark.

Questions (12.10.2016)

Q: For the first indicative offer in April the tenderers had to hand in a letter of intent from a financial institution for the defective performance guarantee (Appendix 3). Is it therefore a precondition from DEA, that the same financial institution has to provide the final 100 million DKK guarantee for defective performance (appendix 1.1) upon signing of the concession agreement? Or would it also be possible for a another financial institution/bank to sign the final guarantee?

A (26/10/2016): It will be possible for another financial institution/bank to sign the final guarantee. The guarantee must however be provided by a recognised financial institution, insurance company, or similar, which has been approved by the Danish Energy Agency in advance. The Guarantor shall 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 international rating agency. Reference is made to paragraph 3 of the draft Concession Agreement and Appendix 1.1.

Q: Under sec. 22 of the tender conditions, bullet point 3, it is stated, that the final bid will require a "solemn declaration that economic operators on which the tenderer has relied economically, financially or technically do not have unpaid, due debt to public authorities exceeding DKK 100,000, cf. clause 13 of the tender conditions." The same declaration is requested from the tenderer itself in accordance with Appendix 2. Could DEA please clarify if there will be a template for this declaration like Appendix 2 for the economic operator in the final tender docs? And if not: what would be the required procedure by DEA for the above stated declaration by the Economic Operator?

A (26/10/2016): The template in appendix 2 can be used for as well the tenderer, as an establishing entity or an entity on which the tenderer is relying for its economic, financial or technical capacity.

Question (04.07.2016)

Q: In the updated Kriegers Flak Tender Conditions the deadline of 12 years for the decommissioning security still remains. For Danish Near Shore this is set at 15 years after discussions that 12 years was not appropriate. What is the reason for reverting to the 12 years? Or is this a simple oversight?

A (24.10.2016): The deadline for decommissioning guarantee for the Kriegers Flak is as stated in the Final tender conditions of 12 years. The deadline is based on the tenderers replies regarding the potential extension of the deadline for the decommissioning guarantee, which the Danish Energy Agency has carefully analyzed. An extension of the deadline to 15 years would inflict the Danish State with a significant risk without leading to a significant reduction in the expected final bid price; hence it was kept to 12 years.

Questions (23.08.2016)

Q1: Would the DEA consider entering into a direct agreement ("Direct Agreement") with the Project Company and lenders in relation to the Concession Agreement (and related licences and authorisation) in the context of a project financed solution to the Kriegers Flak project?

A (24.10.2016): Please refer to the answers to the following questions: "**Questions (09.09.2016)**"

Q2: Could the Direct Agreement provide certain 'pre-approved' lenders (based on the economic/financial/technical criteria referenced in the Concession Agreement (and related licences and

authorisation)) the right in the event of a project company default, to operate the offshore wind farm temporarily (for example for 365 days) (without further DEA approval being required) until an appropriate buyer (holding an authorisation under the Electricity Supply Act) is found?

This pre-approval would involve upfront consent to, in limited circumstances:

- a change of control of the Project Company;
- a transfer of the Concession Agreement;
- a replacement of the Economic Operator (as applicable) or
- carrying out the licensed activities permitted under the Electricity Production Authorisation, the Pre-Investigation Licence, the Construction Licence and the Electricity Production Licence (and not to revoke them), to the limited extent necessary to allow lenders who are party to the Direct Agreement to step-in temporarily, rather than making an assessment as to these criteria at the point in time at which the request for transfer/change is made.

A (24.10.2016): Please refer to the answers to the following questions: “**Questions (09.09.2016)**”

Q3: Is the DEA able to provide further information or guidance on the nature of its:

- ‘economic, financial and technical’ capacity requirements; and
 - ‘objective criteria’ and ‘specific assessment’ requirements,
- for a potential assignee in respect of an offshore wind farm project such as Kriegers Flak? Would the DEA be willing to confirm this in writing in the Direct Agreement?

A (24.10.2016): Please refer to the answers to the following questions: “**Questions (09.09.2016)**”

Q4: Irrespective of the entry into any direct agreement in relation to the Concession Agreement, we understand that pursuant to:

- clause 16.3 of the Concession Agreement, a ‘change of control’ of the Project Company could be deemed to occur on grant by Lenders of a first priority share pledge granted over the share capital of the Project Company; and
 - clause 15 of the Concession Agreement, a ‘transfer’ of the Concession Agreement could be deemed to occur on grant by Lenders of a first priority charge and assignment granted over the Concession Agreement in favour of Lenders,
- and therefore would require the prior consent of the DEA.

We understand that in the Danish oil and gas sector, the DEA has previously granted lenders approval (pre-enforcement) of pledges granted over shares in companies holding Danish hydrocarbon licences, on the condition that the relevant lenders provide the DEA with written confirmation that in case of a default under the terms of the relevant share pledge, the lenders will transfer the shares within a certain time limit to a third party to be approved by the DEA.

As such:

- please confirm whether the act of granting (rather than the enforcement of) a first priority share pledge over the share capital of the Project Company and a first priority charge and assignment over the Concession Agreement (the “Relevant Security”) also be considered a ‘change of control’ under the Concession Agreement (and related licences and authorisation), and therefore require the consent of the DEA?
- if the DEA’s consent to the granting of the Relevant Security is required, can it confirm that this will be granted within a reasonable period of request to permit Financial Close to occur as expected by the Kriegers Flak sponsors (subject to agreement of the step-in regime as contemplated above)?
- would the act of granting (rather than the enforcement of) a first priority charge and assignment over the Concession Agreement (and related licences and authorisation) be considered a ‘transfer’ under the Concession Agreement, and therefore also require the consent of the DEA?

A (24.10.2016): Please refer to the answers to the following questions: “**Questions (09.09.2016)**”

Questions (09.09.2016)

A. Questions with respect to Security

Q1: We understand that by virtue of s10 of the Electricity Supply Act (Elforsyningsloven) the DEA’s consent is required to take security over the Electricity Production Authorisation (Elproduktionsbevillingen). Does the same apply to the:

- i) Construction Licence, cf. s25 of the RE Act (Etableringstilladelsen, jf. VE-lovens § 25);**
- ii) Pre-investigation Licence, cf. s22 of the RE Act (Forundersøgelsestilladelsen, jf. VE-lovens § 22); or**
- iii) the Electricity Production Licence, cf. s29 of the RE Act (Tilladelse til at udnytte vindenergien, jf. VE-lovens § 29 (Elproduktionstilladelsen))?**

A (20.10.2016):

Pursuant to the RE Act § 29(4) transfer of licenses issued pursuant to §§ 22-25 and § 29 of the RE Act requires prior consent from DEA. This means that granting of security over the licenses as such does not require prior consent; however any enforcement of such security will require prior consent from the DEA.

Q2: We understand that the DEA’s consent:

- i) is required to take a pledge (pantsætning) over the Electricity Production Authorisation (elproduktionsbevillingen) and possibly the other licences (see Question 1);**
- ii) is required to take a security assignment (transport til sikkerhed) over the Concession Agreement by virtue of Clause 15 thereof; and**
- iii) may be required to take a share pledge over the shares in the Concessionaire by virtue of Clause 16.3 of the Concession Agreement.**

Please confirm in each case. Further, we understand that to enforce such security in each case would also require consent (please confirm).

A (20.10.2016):

The DEA confirms that its prior written consent is required in each case to enforce:

i) a pledge (pantsætning) over the Electricity Production Authorisation (elproduktionsbevillingen) and the other licences (see Question 1);

ii) a security assignment (transport til sikkerhed) over the Concession Agreement by virtue of Clause 15 thereof; and

iii) share pledge over the shares in the Concessionaire by virtue of Clause 16.3 of the Concession Agreement.

No prior consent will be required for the taking of a pledge or security assignment as such, provided that no transfer of rights or obligations takes place at the time of granting of the pledge or security assignment.

Q3: It is further our understanding that the DEA's consent is not required (under the Concession Agreement, the RE Act or the Electricity Supply Act) in relation to any security that may be granted for any financing at a shareholder or corporate level above the Concessionaire and its immediate shareholding: please confirm.

A (20.10.2016):

DEA confirms that no consent is required under the Concessions Agreement, the RE Act or the Electricity Supply Act) in relation to any security that may be granted for any financing at a shareholder or corporate level above the Concessionaire and its immediate shareholding.

Q4: Please can the DEA confirm that they would be willing to grant the consents required to permit the Concessionaire to grant and enforce the security contemplated in Question 2 to permit a project financing? Specifically:

i) would such consent be subject to any restrictions as to the timing or manner of Lender's enforcement?

ii) if there would be a time limit for Lender step-in, can the DEA confirm that this would not be less than 365 days?

iii) would such consent be subject to any additional conditions, such as a requirement that any enforcement result in the replacement of the economic and technical operator?

iv) can the DEA advise as to the timetable and process for obtaining such consent, assuming it was some months after Concession award?

A (20.10.2016):

DEA is not willing to provide accept up front to the enforcement of the security contemplated in Question 2, as this would limit DEA's access to undertake the specific case-by-case assessment of the technical, economic and financial capacity of the holder of the licenses as required pursuant to the applicable rules and the Concessions Agreement.

DEA will however look favourably upon any request for consent to the enforcement of a pledge over the Electricity Production Authorisation (elproduktionsbevillingen) and the other licences and will process such request as swiftly as possible.

According to section 10 of the Electricity Supply Act (Elforsyningsloven) and the preparatory works of this section, DEA will be able to accept a Lender step-in for a limited period of time in respect of the Electricity Production Authorisation (elproduktionsbevillingen). Such accept will be granted on a case-by-case basis after careful consideration of the specific circumstances of each Lender step-in request. It should generally be expected that a Lender step-in will only be accepted for a shorter period of time (likely far less than 365 days).

In respect of licenses issued pursuant to the RE Act, any Lender step-in will only be possible where such lender can demonstrate sufficient financial and technical capacity. Where this is the case, the DEA is willing to accept that a lender may hold the license. A lender may demonstrate technical capacity by presenting the DEA with binding non-terminable agreements for the construction of Kriegers Flak offshore wind farm with third parties holding the required experience and competences.

Any consent from DEA of enforcement of a security assignment (transport til sikkerhed) over the Concession Agreement by virtue of Clause 15 thereof; and enforcement of a share pledge over the shares in the Concessionaire by virtue of

Clause 16.3 of the Concession Agreement will only be given after careful consideration of the specific situation in each case. DEA can therefore not generally confirm upfront that consent to the enforcement of a security in the shares or assets of the Concessionaire will be provided or commit at this time to the specific restrictions or terms attached to such possible consent.

However, please note that any replacement of the economic and technical operator will only be acceptable in accordance with the provisions of the Concessions Agreement, cf. paragraph 17 – 18. iii)

Q5: To document (inter alia) the consent contemplated in Question 4, would the DEA be willing to enter into a direct agreement with project finance Lenders? This could, for example, be based on the form of the third-party agreement used in a PPP context (Trepartsaftale - bilag 5 til Konkurrence- og Forbrugerstyrelsens standardkontrakt for byggeri og anlæg som Offentlig-Privat Partnerskab (Scenarium 2))? Alternatively, if a direct agreement is not possible, would a consent letter or other binding legal format be preferable?

A (20.10.2016):

Please refer to the answer provided to Question 4 above. DEA is not willing to enter into a Direct Agreement with project finance Lenders.

Q6: In addition to consenting to the Security, would it be possible to include in the direct agreement or other arrangements:

i) an undertaking from DEA not to terminate, withdraw or revoke the Concession Agreement (and Electricity Production Authorisation and other licences, see Question 1) without prior notice to Lenders, and an opportunity for them to rectify any concerns?; and

ii) clarification of the criteria the DEA would apply to determining the suitability of any replacement owner and/or economic operator resulting from Lenders' enforcement?

A (20.10.2016):

Re (i)

As set out above under Q4, DEA is not willing to enter into a direct agreement or other similar instrument of binding legal format granting up front consent to the enforcement of the contemplated securities/pledges, including any pre-approved Lender step-in rights.

DEA will however be able to undertake not to terminate, withdraw or revoke the Concessions Agreement and Electricity Production Authorisation and other licenses, without prior notice to Lenders and an opportunity for them to rectify any concerns within a short period of time.

However, if the Concessionaire should e.g. go bankrupt or become insolvent DEA cannot refrain from revoking the Electricity Production Authorisation or other licenses.

Re (ii)

Reference is made to clause 18.2 of the draft on the Concessions Agreement in respect of replacement of an economic operator prior to grid connection of all wind turbines in the offshore wind farm. Clause 18.2 states that the Concessionaire, with the replacement economic operator, must continue to comply with the original criteria for qualitative selection under the tendering procedure.

In all other circumstances of a replacement owner or economic operator (after grid connection of all wind turbines in the offshore wind farm), the required level of technical and financial capacity will always depend on a specific assessment at the relevant time. It is therefore not possible to provide more precise advice as to the specific financial criteria, which DEA will apply in determining the suitability of any replacement owner and/or economic operator. DEA may only refuse consent if there are objective reasons for doing so, cf. clause 18.3 in the draft on the Concession Agreement.

In respect of the technical requirements it should be expected that the technical requirements will be higher during the construction phase than in the period after. The Concessionaire will during construction be required to document that the Concessionaire, with the replacement owner and/or economic operator, continues to hold the relevant experience in

respect of project development and management of construction of offshore wind farms and the relevant competences. If this is not the case, the Concessionaire will have to present DEA with binding non-terminable agreements for the construction of Kriegers Flak offshore wind farm with third parties holding such required experience and competences.

During the operational phase the technical requirements will be limited to the competences and experience relevant for the operation, maintenance and decommissioning of the offshore wind farm.

The purpose of the economic and financial capacity requirements is both to ensure that the offshore wind farm has sufficient financial backing, including finances to ensure a technically sound operation of the offshore wind farm and to ensure that there are sufficient resources to comply with the requirements of the licenses on a regular basis, including the requirement to decommission the offshore wind farm.

DEA did set the requirements for prequalification in respect of economic and financial capacity at the time of publishing the contract notice. These requirements reflect the DEA's general assessment at that time of the level of financial capacity required in order to obtain the needed licenses and authorization and to fulfill the obligations set out in the draft of the Concessions Agreement, i.e. the requirements reflect DEA's assessment of what, at the time of publication of the contract notice, was generally considered to be needed in order to construct, operate, maintain and decommission the wind farm. The requirements for prequalification can therefore serve as a guideline, but final approval will always be based on a specific assessment at the relevant time of what is considered necessary to ensure continued sufficient financial capacity of the Concessionaire.

Q7: With respect to the criteria referred to in Question 6 (ii), please could the DEA consider whether any assurances can be given as to the pool of persons who might be a suitable replacement? Specifically:

i) whether it can be said that any person who has prequalified for the tender, or who is otherwise already approved as a technical or economic operator of offshore wind assets in Denmark (unless in breach at the relevant time), would be approved as an operator;

ii) whether it can be said that anyone with substantial offshore wind ownership interests in Western Europe would be expected to be acceptable; and

iii) whether it can be said that provided the Decommissioning Security is provided, there is no, or only limited financial standing test once the asset is built, or, if not, whether that test can be objectively defined.

A (20.10.2016):

Re (i)

Please refer to the answer provided to question 6 (ii).

DEA cannot confirm that DEA – per se - will give a written consent to a replacement of a founding company or a replacement of an economic operator on which the Concessionaire is relying which has prequalified for the tender (Kriegers Flak) or which is otherwise already approved as a technical or economic operator of offshore wind assets in Denmark.

However if an entity has prequalified for the Kriegers Flak tender by fulfilling the prequalification criteria (both economic, financial and technical), there is a presumption that it will also have the necessary economic, financial and/or the necessary technical capacity at the time of the request for a replacement of a founding company or a replacement of an economic operator on which the Concessionaire is relying. Though, DEA will always carry out a specific assessment at the time of the request.

Re (ii)

DEA cannot confirm that DEA – per se - will give a written consent to a replacement of a founding company or a replacement of an economic operator on which the Concessionaire is relying just based on the fact that the entity has substantial offshore wind ownership interests in Western Europe. Though, DEA will take it into consideration when making the specific assessment at the time of the request.

Re (iii)

In case of replacement after the construction phase (and grid connection of all wind turbines in the offshore wind farm), DEA will look into whether the Concessionaire has the necessary financial and technical capacity to maintain, operate and decommission the wind farm.

The size of the decommissioning guarantee has been set in the light of the financial prequalification criteria for the Kriegers Flak tender (the original criteria for qualitative selection under the tendering procedure) and the security DEA achieves when founding companies and economic operator on which the Concessionaire is relying assume joint and several liability. With considerably uncertainty regarding the cost of decommissioning in the future, it is uncertain whether the decommissioning guarantee will fully cover the cost of decommissioning. Reference is made to DEA's answer to question 6 (ii).

DEA can confirm that - if the decommissioning guarantee on 600 million DKK has been provided - DEA will take this into consideration when assessing what is the required and necessary level of financial capacity is in order to maintain, operate and decommission the wind farm in case the Concessionaire is applying for replacement of a founding company or an economic operator on which the Concessionaire is relying.

Q8: Our understanding is that certain of the Energinet.dk collaboration agreements do not clearly permit the grant or enforcement of an assignment by way of security assignment (transport til sikkerhed). Please can the DEA seek confirmation from Energinet.dk that they would be willing to consent to security and enter into a direct agreement in respect of such collaboration agreements in the same terms as those which DEA may agree to in connection with the Concession Agreement and permits.

A (20.10.2016):

Please refer to the answer provided to Question 4 and 5 above. DEA is not willing to enter into a Direct Agreement with project finance Lenders.

Therefore, confirmation from Energinet.dk regarding whether Energinet.dk would be willing to consent to security and enter into a Direct Agreement in respect of the Collaboration Agreement is not relevant.

Q9: Following award of the Concession Agreement, including the authorisation and licences (see Q1), please can the DEA confirm our understanding that:

i) Clause 16.3 of the Concession Agreement is only concerned with (a) the immediate shareholding in the Concessionaire; and (b) contractual veto rights or appointment rights that relate directly to voting by the Board of the Concessionaire or by its shareholders in general meeting (and not to the voting of the board or shareholders of any of its shareholders at any level); and

ii) that Clause 16.3 of the Concession Agreement is the governing provision on change in control for all DEA regulatory purposes in connection with the project, so that the reference to an "indirect" transfer of a permit in s10 of the Electricity Supply Act should be read in the same way (ie. an indirect transfer under the Act does not arise unless there is a "change in control" under Clause 16.3 of the Concession Agreement).

A (20.10.2016):

Clause 16.3 of the draft on the Concession Agreement has the following wording: "Change of control shall mean transfer of a majority shareholding in the Concessionaire and/or changes in the rights stated in point 16.1"

Clause 16.1 has the following wording: "At the time of the conclusion of the Concession Agreement, the Concessionaire shall be owned by the following parties [name and ownership share]. The Parties shall control the Concessionaire in accordance with their respective ownership shares, and no party shall have been granted the right to veto in relation to significant decisions or access to appoint the majority of the Board or similar. [otherwise the rights to veto etc. shall be stated and the preceding text shall be adjusted]"

In respect of question 9(i), DEA confirms that clause 16.3 in the draft on the Concession Agreement is concerned with (a) the immediate shareholding in the Concessionaire; and (b) contractual veto rights or appointment rights that relate directly to voting by the Board of the Concessionaire or by its shareholders in general meeting (and not to the voting of the board or shareholders of any of the shareholders of the Concessionaire at any level).

In respect of question 9(ii), clause 16.3 of the draft on the Concession Agreement will not generally be the governing provision on change of control for all DEA regulatory purposes in connection with the project. The question of whether a change in the Concessionaire or its shareholders will constitute a change of control or an indirect transfer of any license held by the Concessionaire will have to be assessed on the basis of the regulatory framework applicable to such licenses.

Q10: It follows from s53 of the Electricity Production Act and the model authorisation in Appendix 8 of the Draft Final Tender Conditions that the Electricity Production Authorisation is exempted from legal proceedings. Does the same apply to the:

i) Construction Licence, cf. s25 of the RE Act (Etableringstilladelsen, jf. VE-lovens § 25)?

ii) Pre-investigation Licence, cf. s22 of the RE Act? (Forundersøgelsestilladelsen, jf. VE-lovens § 22)?

iii) the Electricity Production Licence, cf. s29 of the RE Act (Tilladelse til at udnytte vindenergien, jf. VE-lovens § 29 (Elproduktionstilladelsen))?

A (20.10.2016):

In the DEA's opinion also licences issued pursuant to §§ 22, 25 and 29 of the RE Act will be exempted from legal proceedings, as any transfer of such licenses pursuant to the RE Act § 29(4) requires the prior accept of the DEA.

B. Questions with respect to defective performance

Q1: We understand that, in the event that the finally determined costs, terms and performance are such that it is not possible or economic to build the wind farm:

i) the total liability of the Concessionaire (or anyone jointly and severally liable with it), whether in contract, tort, delict, statute, under regulations or otherwise, shall not exceed the defective performance penalty; and

ii) that neither the DEA nor Energinet.dk shall have or bring any further claim against the Concessionaire (or anyone jointly or severally liable with it).

Please confirm in each case.

A (20.10.2016):

The DEA can confirm that the penalty for defective performance covers full and final settlement of any claim the Danish Energy Agency may have against the Concessionaire – and/or any entity that has assumed joint and several liability with the Concessionaire - according to the draft on the Concession Agreement and the associated licences and authorisation in the event that the Concessionaire fails to construct the electricity production plant and connect it to the grid in accordance with the terms and conditions of the Concession Agreement.

Furthermore, the DEA can confirm that the penalty for defective performance covers full an final settlement of any claim Energinet.dk may have against the Concessionaire – and/or an entity that has assumed joint and several liability with the Concessionaire - pursuant to section 31(1) of the Promotion of Renewable Energy Act (in the following referred to as the RE Act) in the event that the Concessionaire fails to construct the electricity production plant and connect it to the grid in accordance with the terms and conditions in the Concession Agreement.

The legal basis can be found in the draft on the Concession Agreement section 2.3 - 2.5

C. Questions with respect to Joint and Several Liability

Q1: In certain circumstances, Lenders to the Concessionaire or for any financing at a shareholder or corporate level above the Concessionaire and its immediate shareholding (the "GroupCo") may enforce their securities over shares in the Concessionaire or the GroupCo. This may result in the economic operator ceasing to have a connection to the Concessionaire or GroupCo or the Concessionaire to be a party to the Concession Agreement. We assume that in this scenario, the economic operator would be released from liability under this arrangement and a new replacement economic operator would replace it.

Would DEA be willing to accept a restriction in the Concession Agreement that the economic operator's joint and several liability terminates automatically at the point of time when either:

- i) the economic operator ceases to hold at least 50 per cent of the share capital of the Concessionaire; or
- ii) the Concessionaire ceases to be concessionaire under this Concession Agreement, or
- iii) in a scenario when the economic operator holds a participation of 50 per cent in the GroupCo, if
 - a) the economic operator ceases to hold at least 50 per cent of the share capital of GroupCo, or
 - b) the GroupCo ceases to hold 100 per cent of the share capital of the Concessionaire,

(each a "Termination Trigger Event"),

provided that any such termination of the economic operator's joint and several liability shall not apply if (prior to the occurrence of a Termination Trigger Event) the economic operator confirms to DEA that it will continue as the economic operator irrespective of the occurrence of a Termination Trigger Event and, noting that any Termination Trigger Event that triggers a termination of the joint and several will always require DEA's consent?

A (20.10.2016):

Pursuant to clause 18 of the draft on the Concessions Agreement an economic operator on which the Concessionaire has relied in respect of its economic, financial or technical capacity may be replaced on the terms and conditions set out in clause 18. The DEA finds this possibility for replacement sufficient and will not be able to accept an automatic replacement without any specific assessment of the financial and technical capacities of the Concessionaire in case of a Termination Trigger Event.

Q2: Would the DEA be prepared to accept the amendments to the Concession Agreement as outlined in Schedule 1 to reflect the principles set out in Question C.1 above?

Schedule 1 Proposed amendment to the Concession Agreement

Extract from the draft Concession Agreement

13.3.9. The joint and several liability of this/these other economic operator(s) shall remain in force until the expiry of the obligations under this Concession Agreement and/or the mentioned licences and authorisations, however, it shall terminate automatically at the point of time when either:

- i) the economic operator ceases to hold at least 50 per cent of the share capital of the Concessionaire; or**
- ii) the Concessionaire ceases to be concessionaire under this Concession Agreement, or**
- iii) in a scenario when the economic operator holds a participation of 50 per cent of an entity holding 100 per cent of the share capital of the Concessionaire (the "GroupCo"), if**
 - a) the economic operator ceases to hold at least 50 per cent of the share capital of GroupCo, or**
 - b) the GroupCo ceases to hold 100 per cent of the share capital of the Concessionaire,**

(each a "Termination Trigger Event"),

provided that any such automatic termination of the economic operator's joint and several liability shall not apply if – prior to the occurrence of a specific Termination Trigger Event – the economic operator confirms to the DEA that it will continue its position as economic operator irrespective of the occurrence of the specific Termination Trigger Event.

In any event, the economic operator shall still have joint and several liability for any claim pursuant to this 13.3 of this Concession Agreement originating prior to the relevant date of termination.

...

13.4.9. The joint and several liability of this/these other economic operator(s) shall remain in force until after the expiry of the obligations for project development and managing construction under this Concession Agreement and/or the licences and authorisations mentioned, **however, it shall terminate automatically at the point of time when either:**

i) the economic operator ceases to hold at least 50 per cent of the share capital of the Concessionaire; or

ii) the Concessionaire ceases to be the concessionaire under this Concession Agreement, or

iii) in a scenario where the economic operator holds a participation of 50 per cent of an entity holding 100 per cent of the share capital of the Concessionaire (the "GroupCo"), if

a) the economic operator ceases to hold at least 50 per cent of the share capital of GroupCo, or

b) the GroupCo ceases to hold 100 per cent of the share capital of the Concessionaire,

(each a "Termination Trigger Event")

provided that any such automatic termination of the economic operator's joint and several liability shall not apply if – prior to the occurrence of a specific Termination Trigger Event – the economic operator confirms towards DEA that it is willing to continue its position as economic operator irrespective of the occurrence of the specific Termination Trigger Event.

In any event, the economic operator shall still have joint and several liability for any claim pursuant to this clause 13.3 of this Concession Agreement originating prior to the relevant date of termination.

...

16.3. Change of control shall mean transfer of a majority shareholding in the Concessionaire and/or changes in the rights stated in point 16.1 **and/or a transfer that leads to a situation in which [insert the name of the economic operator] role as economic operator terminates pursuant to clause 13.3.9 and/or 13.4.9 of this Concession Agreement.**

...

18.1. **Save as stipulated under clauses 13.3.9 and 13.4.9 of this Concession Agreement, replacement or exit of economic operators on which the Concessionaire has relied in respect of its economic, financial or technical capacity [adjusted depending on whether the Concessionaire obtains economic, financial or technical capacity from the economic operator] in connection with the prequalification round shall generally not be permitted and shall, at all events, be subject to written consent from the Danish Energy Agency.**

A (20.10.2016):

Please see answer to Q1 above.

Questions (23.08.2016)

Q5: Would the DEA be prepared to accept credit support for the Project Company's liability for defective performance in the form of the Model Demand Guarantee as amended at Schedule 3 **HERE?**

A (10.10.2016): Yes, the DEA would accept such amendments though with minor changes (please note, the DEA's changes in red font).

Q6:

- a. **We understand that, in the event that the finally determined costs, terms, and performance are such that it is not possible or economic to build the wind farm the total liability of the Concessionaire would not exceed the penalty for defective performance. However, can you please confirm that these are the only claims that DEA and/or Energinet.dk may have against the Concessionaire in such instance? i.e. that DEA and/or Energinet.dk will not make any additional claims based on or derived from the fact that the Concessionaire does not fulfil its obligation to construct the windfarm (whether due to breach of contract or under any other potential legal basis for a claim)?**
- b. **If DEA considers it a possibility of making such other claims, can the DEA clarify the scope of the Concessionaire's liability, if any?**
- c. **With regard to question 1.6.1 above, can you in particular confirm that DEA will not raise any damage claims against the Concessionaire in the amount of the difference between the Concessionaire's bid and the bid of another bidder that accepts to adhere to its bid (in the same or in a further tender process)?**

A (10.10.2016):

- a. The DEA can confirm that the penalty for defective performance covers full and final settlement of any claim the Danish Energy Agency may have against the Concessionaire according to the Concession Agreement and the associated licences and authorisation in the event that the Concessionaire fails to construct the electricity production plant and connect it to the grid in accordance with the terms and conditions of this Concession Agreement.

Additionally the penalty for defective performance covers full and final settlement of any claim Energinet.dk may have against the Concessionaire pursuant to section 31(1) of the Promotion of Renewable Energy Act (in the following referred to as the RE Act) in the event that the Concessionaire fails to construct the electricity production plant and connect it to the grid in accordance with the terms and conditions in this Concession Agreement. The detailed conditions in relation to this can be found in the Concession Agreement section 2.3 - 2.5.

- b. The DEA kindly refer to the answer above, letter a.
- c. DEA will not raise any damage claims against the Concessionaire in the amount of the difference between the Concessionaire's bid and the bid of another bidder that accepts to adhere to its bid.

Questions (27.09.2016)

Q1: We understand that the liability for entities upon which the concessionaire relies to comply with the technical conditions for prequalification will only be liable for claims relating to project development and management construction and only for the period until the obligations for project development and managing construction is expired. We assume this means that such entities will not be joint and several liable with the concessionaire for obligations arising from the period after the wind farm is connected to the grid, i.e. any joint and several liability will only relate to obligations concerning the period before grid connection of the wind farm. Please confirm if the described understanding is correct.

Q2: In terms of cessation of joint and several liability for entities upon whose technical capacity the concessionaire relies, is it sufficient for the liability to cease that 95% of the capacity of the farm is connected to the grid?

A (10.10.2016) – Q1 & Q2:

The conditions for joint and several liability for entities on which the concessionaire relies to comply with the technical capacity for prequalification is described in detail in the Concession Agreement section 13.4.

Entities on which the concessionaire relies to comply with the technical capacity shall assume joint and several liability on an equal basis with the Concessionaire in respect of claims arising in relation to project development and managing construction (but not other obligations such as the decommissioning obligation) pursuant to the Concession Agreement and related licences and authorisation.

Hence, the entity on which the concessionaire relies in respect to its technical capacity will continue to be joint and several liable together with the Concessionaire even after the construction phase for any claims arising in relation to the project development and managing of the construction.

Therefore, the DEA cannot confirm that the entity on which the concessionaire relies in respect to its technical capacity is released from the joint and several liability when 95% of the capacity of the farm is connected to the grid. Further in relation to this, the construction phase is not limited to the period until 95% of the capacity is connected to the grid. It covers the entire construction of the wind farm.

Question (02.11.2015) Regulations

Q: Are there any requirements regarding scope and duration of environmental monitoring during construction and especially during operations? New regulations upcoming?

A (07.10.2016): No requirements regarding scope and duration of environmental monitoring during construction and operations are expected.

Q (16.06.16)

Collective agreements - offshore wind turbines

Q: Which specific collective bargaining agreements are considered a "collective agreement entered into by the most representative social partners in Denmark within the trade or industry concerned and which apply to the entire territory of Denmark" that the labour clause in the tender material is referring to with regard to maintenance work on the offshore wind turbines?

A (06.10.2016):

In Denmark, pay and working conditions are typically laid down by collective agreements concluded between trade unions and employer's organisations. The Danish Energy Agency will therefore encourage tenderers to contact employer's organisations in Denmark in order to get further information about which collective agreements is to be considered a "collective agreement entered into by the most representative social partners in Denmark within the trade or industry concerned and which apply to the entire territory of Denmark" in regards to maintenance work on offshore wind turbines. More information about the Danish Labour Market can be found on the following websites:

<http://uk.bm.dk/en/Themes/The%20Danish%20Labour%20Market.aspx>

Question (13.09.2016)

Q: Do we need to deliver updated LOI covering the guarantees together with final bid in November?

A (16.09.2016):

No. There is no requirement to deliver updated LOI covering the guarantees together with final bid in November

Q (08.08.2016) Guaranties of origin for the production of electricity

In the tender it is indicated that at the request of the electricity producer Energinet.dk will issue guaranties of origin for the production of electricity from the Kriegers Flak Offshore Wind Farm.

In the document Oprindelsesgarantier-for-vedvarende-energi the condition to get guaranties of origin is that the energy should be "supplied from a power generation plant to the public distribution grid". Kriegers Flak will be connected to the transmission grid, therefore will not get guarantees of origin. Is it correct?

A (18.08.2016):

Energinet.dk will issue guaranties of origin for the production of electricity from the Kriegers Flak Offshore Wind Farm. The formulation “the public distribution grid” is a translation of “det kollektive elforsyningsnet” which according to the definition in the Danish electricity act includes both the distribution grids and the transmission grid.

Q (20.05.2016) Financial capability of the Economic operator providing the financial and technical capacity towards DEA

A (05.07.2016)

Q: In which way will DEA assess the financial capability of the Economic Operator over the lifetime of the project?

A: The DEA has set minimum requirements in the Contract Notice that was to be fulfilled at the time of prequalification.

The requirements for prequalification reflects the DEA’s general assessment of the level of financial capacity of the concessionaire that is necessary in order to obtain the needed licenses and authorisation and to fulfill the obligations set out in the Concession Agreement. Therefore, it reflects the DEA’s assessment of what, at the time of publication of the contract notice, was generally considered to be needed in order to construct, operate, maintain and decommission the wind farm and restore the area to its former condition.

After signing the Concession Agreement, the financial capacity of the concessionaire will be reassessed only if the DEA has legal basis for this, for example if it is a requirement according to the conditions in the Concession Agreement, the applicable rules or the licenses and the authorisation, e.g. in case of issuance of licenses or the direct or indirect transfer of a license etc. i.a. pursuant to clauses 15 or 16 of the Concession Agreement and/or clause 14 of the construction license (appendix 6) and/or the electricity production license (appendix 7). The DEAs assessment of what is required in regards to financial capacity will primarily depend on what stage the project is at, at the time of the request, i.e. the DEA is likely to require a higher level of financial capacity in the construction phase than in the operational phase.

Q: What would be the consequences in case the financial capability requirements will not be met anymore by the Economic Operator (e.g. rating-downgrade of the economic operator)?

A: The minimum requirements set out in the Contract Notice where to be complied with at the time of prequalification. During the tendering procedure, the DEA will not in general (absent bankruptcy etc.) undertake reassessments of whether the financial capability requirements are continuously met throughout the tendering procedure by the prequalified tenderers including economic operators on which they rely.

Where after signing the Concession Agreement, an assessment of the financial capacity of the concessionaire is done, cf. answer above, and an economic operator fails to meet the financial capability requirements, the DEA will make a specific assessment at that time of whether the concessionaire as a whole is still considered to hold the required financial capacity. If the concessionaire e.g. has constructed and commissioned Kriegers Flak, the DEA will only require that the concessionaire has the necessary financial capacity to operate, maintain and decommission Kriegers Flak and not the capacity to construct the wind farm.

Q: Will it be the obligation to provide new or additional securities? Which kind of securities would that be (e.g. bank L/C)? What would be the amount of the security, which needs to be provided (e.g. possibility of providing a limited additional guarantee to DEA)? Which party would be obliged to provide the security (the Project Company or the Economic Operator)?

A: Where after contract signing an assessment of the financial capacity of the concessionaire is done pursuant to a license etc., cf. answer above, and the concessionaire is considered no longer to have the necessary financial capacity on its own to maintain and/or obtain the required licenses or authorisation, the DEA may require the concessionaire to provide additional financial capacity from a third party e.g. from a financial institute, insurance company, parent company or similar.

The DEA may require that such third party providing additional security must meet similar requirements as the ones applicable today pursuant to the tender material, however it is not possible at this time to provide a general lay out of the form and amount of security to be provided in order to fulfill the requirements to financial capacity at any given time. It will be subject to a specific assessment at that specific point in time.

Q: How does DEA assess the need of a new/additional security after COD has been reached, i.e. after the construction risks have fallen apart?

A: Please see the answers above.

Q (20.05.2016): The Concessionaire shall at any given time have at its disposal the required technical and economic capacity to operate KF-OWF. If the financial capability of the Economic Operator would deteriorate but not the financial capacity of the Concessionaire itself, should additional security be provided or would the DEA rely solely on the financial capacity of the Economic Operator. In order to provide more comfort to DEA, the financial capability of the Concessionaire could in such circumstance be assessed and monitored by external rating agencies.

A (05.07.2016): Please see the answer to the above question.

Q (20.05.2016) Scope of the joint and several liability in an insolvency scenario

What would be the scope of the joint and several liability in case of an insolvency of the Project Company? Would it be restricted to the dismantling/decommissioning of the offshore windfarm? Will there be an obligation in the final tender docs to operate the wind farm for the whole 25-year period which would be covered by the joint and several liability, i.e. in case of an insolvency of the Project Company the Economic Operator would be forced to continue the Project?

A (05.07.2016): Economic operators, which the concessionaire is relying on, will be joint and several liable for any obligations arising from the Concession Agreement, the licenses and authorisation. This does not include an obligation to continue the operation of Kriegers Flak, cf. point 13 in the draft on the Concession Agreement, but will include the obligation to ensure decommissioning of Kriegers Flak.

Q (20.05.2016) Joint and several liability

The concept of a joint and several liability of the Economic Operator is not really fitting a project finance solution of which the material characteristic is the limited recourse towards the shareholders (or their parent companies). De facto, such concept is favoring balance-financed solutions over project financed solutions given the balance sheet of the Economic Operator will be guaranteeing finally the obligations of the Project Company towards DEA. In order to keep a level playing field between different financing solutions, we would propose to restrict the final liability of the Economic Operator and at the same time increasing the security towards DEA by specifying the termination date of the security for defective performance at one fixed date, i.e. the first kw/H from the first wind turbine supplied to the collective grid. This would be the only way that an Economic Operator is able to subscribe to the residual risk imposed under the joint and several liability in a project finance solution which would restore the level playing field between bidders with different financing solutions.

A (05.07.2016): It follows from the Contract Notice and point 13 in the draft on the Concession Agreement that economic operators on which the concessionaire is relying, are to assume joint and several liability in respect of the Concession Agreement and the related licences and authorisation, which will be granted to the concessionaire by signing the Concession Agreement together with the concessionaire.

The reason behind the requirement is to ensure that the concessionaire has the financial capacity to construct, operate, maintain and decommission the wind farm and to restore the area to its former condition. Therefore, the requirement cannot be removed.

In regard to the penalty for defective performance, please note point 2.7 in the draft on the Concession Agreement, where it is stated that the penalty for defective performance shall lapse when the first kWh has been supplied to the collective grid.

Q (20.05.2016) Scope of the joint and several liability

What is the precise scope of the joint and several liability? Is the scope of the joint and several liability restricted to the non-compliance with the obligations stated in the concession agreement, licences and authorization, which are in principal the establishment of an electricity production plant and connection to the grid, dismantling/decommissioning of the windfarm and the payments of administrative fees respectively fines in case of non-compliance? Or is the scope more extensive, e.g. does the scope cover all obligations under Danish law, including EU-rules (as mentioned in the model licences in draft concession agreement)?

A (10.06.2016): The scope of joint and several liability is restricted to non-compliance with the obligations stated in the concession agreement, the licenses and authorisation. Claims from third parties are not covered by the scope of joint and several liability. This follows from wording of point 13.2.2 in the draft on the Concession agreement.

As stated in point 5.4, letter b in the memo on negotiations for the tender of the offshore wind farm Kriegers Flak, the DEA will add "from the Danish Energy Agency" to the wording of point 13.3.3 in the draft on the Concession Agreement so the wording will be in line with the wording of point 13.2.2.

Q (20.05.2016) Joint and several liability for DEA claims

What would be the assumed range in DKK of administrative fees as well as of potential fine payments towards DEA in case of non-compliance with the requirements set in the concession agreement, licences, etc.? Is there any practice of DEA handling such fines? Or do such fines follow only the rule of proportionality to the specific breach?

A (10.06.2016): Regarding the administrative fee, please note the Q&A answer from the 26 of June 2015 "Fees for handling of application". The administrative fee is calculated at an hourly price of approximately 1000 DKK. Depending on the nature and complexity of the project, the administrative fee will be charged on an hourly basis for the actual administrative tasks carried out in relation to the project.

The situation has never arisen where the DEA has given a fine for non-compliance with the requirements set out in the concession agreement or the licenses and the authorisation. As a general administrative praxis, proportionality will be considered should the need for a fine arise.

Q (10.03.2016):

Q1: We understand the Name of the entity delivering the preliminary offer as exact that entity which is prequalified? As this also may be a not yet established company, we understand that the signing follows the signing rights established in the prequalification documents.

Q2: We further understand, that the solemn declaration is related to any company affiliated to the "Prequalified entity" such as mother in Denmark or mother co abroad, and Owner co @ headquarters possible debt to the Danish public?

Q3: We further understand that the LOI for a bank guarantee (in total) covering 100 mill DKK may be issued for the "Prequalified entity [not yet established]" on behalf of their owner(s) which is the credible company. If it is a consortium, the LOI guarantee may be divided according to the share (100%, 50%/50%, etc.)?

Q4: We further understand that the LOI for a bank guarantee shall be valid from final bid date currently 8. Nov.2016 to at least final tender closing (1.March) pluss surplus time for renewal till 1. April 2017 with an option for time extension until 1 bn. DKK spent, in case the bidder wins the tender.

A (30.03.2016):

A1: The "Name of the tenderer/grouping of economic operators" in point 3 of the first indicative offer letter (appendix 2 in the tender conditions) shall state the name of the tenderer which has been prequalified. In cases of a not yet established SPV, the name of the not yet established SPV has to be stated. The "Signature" in point 4 of the first indicative offer letter shall be the name of the authorized representative of the applicant (please see section A2 in the Prequalification questionnaire (PQQ)).

A2: Both the prequalified tenderer as well as other companies on which the tenderer is relying on shall submit a solemn declaration stating whether the company has unpaid debt due to public authorities exceeding DKK 100,000. The DEA will, however, accept that such solemn declaration from companies on which the tenderer is relying on, is submitted

together with the best and final offer. The prequalified tenderer must submit a solemn declaration together with the first indicative offer. This also applies where the tenderer is a not yet established company (SPV). The DEA will revise the final tender conditions in accordance with this.

A3: Please see the answer to Q (09.02.2016): Demand Guarantee.

A4: The tenderer must submit a letter of intent from a recognized financial institution, insurance company or similar regarding the demand guarantee of a DKK 100 million together with the first indicative offer.

As a condition for the DEA's signature to the concession agreement, the winner of the concession shall provide a demand guarantee of a 100 million DKK covering the penalty for defective performance. This demand guarantee shall be increased to 450 million DKK after four months in accordance with point 3.3 in the draft on the concession agreement. Please note that the DEA is not asking for this guarantee in the first indicative offer.

As it appears from appendix 3, the DEA does not require a certain period of validity of the letter of intent. The purpose of the letter of intent is to confirm that the tenderer, at present, is able to provide a demand guarantee of DKK 100 million.

Q (10.02.2016): Labour clause follows from Clause 11.1 and 11.2 of the tender conditions that: 11. 1 The Concessionaire and any subcontractors who assist in the Contract are obliged to ensure that the Concessionaire guarantees for workers in Denmark wages, including allowances, hours of work and other conditions of labour which are not less favourable than those applicable for work of the same nature pursuant to a collective agreement entered into by the most representative social partners in Denmark within the trade or industry concerned, and which apply to the entire territory of Denmark. "Assist in the Contract", cf. above, shall mean work performed in Denmark in order to fulfil the Contract. 11. 2 The Concessionaire and possible subcontractors shall ensure that employees receive information about the conditions in the labour clause.

Specifically with respect to 11.2 we kindly ask the DEA to confirm the scope of information needed in relation to the conditions in the labour clause i.e. will the Concessionaire and subcontractors be obligated to include specific information to their employees on the applicable collective agreements, including information on:

- **Maximum working hours and minimum rest periods?**
- **Minimum paid annual holidays?**
- **Minimum rates of pay including overtime rates?**
- **Conditions of hiring-out of workers in particular the supply of workers by temporary employment agencies?**
- **Health, safety and hygiene at work?**
- **Protective measures with regard to the terms and conditions of employment of pregnant women or women who have recently given birth, of children and young people?**
- **Equality of treatment between men and women and other provisions on non-discrimination?**

A (29.03.2016):

The above bullet points seem to refer to letter a-g in article 3 in Directive 96/71/EC of the European Parliament and of the Council of 16 December 1996 concerning the posting of workers in the framework of the provision of services. This directive is transposed into Danish law by Act no 342 concerning the Posting of Workers etc. (Lovbekendtgørelse 2014-

04-03 nr. 342 om udstationering af lønmodtagere m.v.). The concessionaire and, if relevant, the subcontractors must ensure compliance with Danish law, including this Act, when it comes to work performed in Denmark in order to fulfil the Contract.

According to point 11.2 with reference to point 11.1, in the draft on the concession agreement, the concessionaire and the subcontractors are obligated to ensure that the workers in Denmark receives information on wages, including allowances (særlige ydelser), hours of work and other conditions of labour (working conditions).

When figuring out what information the concessionaire or the subcontractors are obligated to ensure that its employees receive, the concessionaire or the subcontractors must look into the relevant collective agreements which has been entered into by the most representative social partners (employers and labour organisations) in Denmark within the trade or industry concerned, and which apply to the entire territory of Denmark. The relevant information, that the concessionaire or the subcontractors shall ensure that the employees receive, is information on wages, allowances (særlige ydelser), hours of work and other conditions of labour (eg. vacation) in the applicable collective agreement. This information can very well include some of the topics mentioned in the bullet points above.

Q (02.11.2015): Regulations

Any other regulations in DK which will have an impact on O&M? Scour monitoring, corrosion protection, statutory/periodic inspections?

A (10.03.2016): The Executive Order on a technical certification scheme for wind turbines no. 73 of January 25th 2013, among other regulation, will have an impact on the O&M and periodic inspections/services.

Q (04.03.2016) Penalty for defective performance

Defective performance penalty and guarantee obligation - According to the draft tender conditions (sec. 8) the penalty for defective performance will fall due immediately upon demand if the construction work on the offshore wind is not commenced by 1 January 2021 - In case the concessionaire after having paid the cost of the EIA (max 80 mDKK) refrains from constructing the wind farm will the cost for the EIA be returned or is it additional to the penalty of the 450 mDKK?

A: The cost of the EIA will be covered by the penalty for defective performance, and will not be additional to the 450 mDKK.

Q (04.03.2016) Penalty for defective performance

Defective performance penalty and guarantee obligation - According to the draft tender conditions (sec. 8) the penalty for defective performance will fall due immediately upon demand if the construction work on the offshore wind is not commenced by 1 January 2021 - Please inform how 'construction start' is defined; are e.g. geotechnical investigations or preparatory work onshore for facilities or buildings necessary for the construction of the offshore wind farm covered by this definition.

A: 'Construction work' is to be understood as offshore activities which are directly linked to the actual establishment of the wind farm, e.g. establishment of scour protection. Preliminary surveys and similar are not covered by this definition.

Q (04.03.2016) Penalty for defective performance

Defective performance penalty and guarantee obligation - According to the draft tender conditions (sec. 8) the penalty for defective performance will fall due immediately upon demand if the construction work on the offshore wind is not commenced by 1 January 2021 - Anticipating that the construction work can be undertaken within one year and that year being 2021 it can give some challenges if this requirement still remain in force. Is this the intention?

A: No – it is not the intention, that this date should be a challenge for companies planning to establish the entire wind farm in 2021. DEA will consider postponing the date in the tender conditions.

Q (09.02.2016): Demand Quarantee

This question relates to the requirement to put up a demand guarantee of DKK 100 million when the Kriegers Flak concession is awarded.

Will the Danish Energy Agency accept that a future concessionaire, instead of providing one demand guarantee of DKK 100 million, provides three demand guarantees of DKK 33 1/3 million each?

If so, will the Danish Energy Agency also confirm that three separate declarations of intent (Appendix 3) may be forwarded, each covering a demand guarantee of DKK 33 1/3 million, in connection with the submission of the provisional tender?

This question is posed, as the tender is expected to be submitted by a company yet to be established by three independent companies.

The Danish Energy Agency confirmed this approach for the Nearshore tender, and it is documented under the Q&A part of the Nearshore webpage.

A: Upon signature of the concession agreement the tenderer must provide a guarantee from a financial institution, an insurance company or similar of DKK 100 million covering the above penalty for defective performance. The guarantee provided must be increased to DKK 450 million after four months. The additional DKK 350 million may either be provided in the form of a parent company guarantee, or as a bank guarantee or similar.

If the concession agreement is awarded to a tenderer that consist of more than one economic operator or if the concession is awarded to a tenderer that is a special purpose vehicle (SPV), the Danish Energy Agency will accept that the members of the consortium or the founding companies/future owners of the SPV submit up to three (3) separate guarantees for the total amount of DKK 100 million upon signature of the concession agreement. Correspondingly up to three (3) separate guarantees for the additional amount of DKK 350 million will be accepted.

The Danish Energy Agency can also confirm that up to three (3) separate declarations of intent from a recognised financial institution, insurance company, or similar, regarding the demand guarantee for the total amount of DKK 100 million (Appendix 3 of the preliminary tender specifications) can be submitted in connection with the indicative offer.

Q (29.01.2016): Declaration of intent

When providing the “Declaration of intent to provide a demand guarantee” described in appendix 3 in the tender conditions, as a joint venture, must all owners of the joint venture provide a “Declaration of intent to provide a demand guarantee” or is it enough that one of the owners of the joint venture company provide the “Declaration of intent to provide a demand guarantee” for the joint venture company?

A: With the first indicative offer, the tenderer must submit a letter of intent from a recognised financial institution, insurance company, or similar, regarding the demand guarantee of DKK 100 million. It is sufficient, if one of the owners of a joint venture company provides this letter of intent.

Q (28.01.2016): Applicable information

In cases of discrepancies between information provided in the technical background material (e.g. the technical project description), the tender specifications and the Q&A log, please inform which material is applicable (in cases where nothing else is mentioned)?

A: In the event of any discrepancy between the technical background material (e.g. the technical project description), the tender conditions and the Q&A log, the tender conditions shall prevail.

Q (17.12.2015): Binding obligations for the tender participants

Please list all binding obligations for the tender participants/tender winner and when these needs to be handed over to the DEA e.g. financial guarantees, binding commitments with penalties etc.

A: This response summarizes the commitments in relation to offers, guarantees and penalties that are applicable in the tender. For a full description of conditions for the fulfillment of these obligations please refer to the tender conditions.

First indicative offer

5 April 2015: Tenderers are to submit a first indicative offer on the basis of the terms stated in the preliminary tender conditions, including the model licenses, model authorisation and the draft concession agreement.

The first indicative offer must contain only one tender price. The tender price in the first indicative offer is neither binding on the tenderer nor the state.

With the first indicative offer, the tenderers are to submit a letter of intent from a recognized financial institution, insurance company, or similar. In the letter of intent the recognized financial institution, insurance company, or similar must declare intent to provide a demand guarantee of DKK 100 million.

Best and final offer

Tenderers must submit their best and final offer on the basis of the revised tender material 8 November 2016 the latest.

The best and final offer must contain only one tender price which is binding on the tenderer.

In the best and final offer, the tenderer is not entitled to make reservations on the final tender material. If the Danish Energy Agency identifies one or more reservations on the tender material in the best and final offer, the Danish Energy Agency may reject the tender or contact the tenderer requesting that the reservations be withdrawn. The tenderer will not be given the opportunity to quote a new price.

With the submission of the best and final offer, the tenderer must undertake to construct the electric power generating plant and connect it to the grid.

If, irrespective of the reason, the concessionaire states that it will not construct the electric power generating plant and connect it to the grid, or if circumstances show that this is so, a penalty for defective performance (an agreed penalty) will be immediately payable upon demand. The penalty for defective performance will also fall due immediately upon demand if the construction work on the offshore wind farm is not commenced by 1 January 2021.

Concession agreement

It is a condition for the Danish Energy Agency's signature to the concession agreement that the guarantee of DKK 100 million covering the penalty for defective performance has been provided.

The Concessionaire shall, at its own initiative, submit documentation of an additional guarantee of DKK 350 million. This documentation shall be received by the Danish Energy Agency no later than four months after the conclusion of this Concession Agreement.

Decommissioning of the plant

Irrespective of when the electric power generating plant is decommissioned, the concessionaire is obliged, at its own account, to restore the area to its former condition and to decommission the plant pursuant to a plan approved by the Danish Energy Agency.

The concessionaire must provide a guarantee, approved in advance by the Danish Energy Agency, covering the dismantling of the plant. The guarantee must be provided by no later than 12 years after the first turbine is connected to the grid. At least six months prior to this time, the concessionaire must submit a plan to the Danish Energy Agency with details of how the guarantee will be provided.

Initially, the guarantee must be for DKK 600 million and must be provided in the form of a guarantee from a financial institution, an insurance company, or similar, approved by the Danish Energy Agency. However, the guarantee may be provided as a parent company guarantee for up to DKK 500 million of this amount. In connection with provision of the guarantee, the Danish Energy Agency may approve a guarantee for a lower amount, if it can be documented with adequate certainty that the costs of decommissioning will be less than DKK 600 million.

Please list and specify when all needed decision from DEA / Danish State regarding the announcement of the winning tender bid will take place. Please include when the tender conditions gains legal force and become binding for the Danish State. Please also include when these milestone took place for Horns Rev 3.

A: The decision process – general remarks

When the best and final offers have been received by the Danish Energy Agency (DEA), DEA will evaluate whether the tenders are compliant and select the best and final offer among the compliant tenders which contains the lowest price. The winning tender price will then be submitted to the signatory parties to the energy agreement (i.e. all political parties behind the energy agreement) for decision.

As soon as the signatory parties to the agreement have decided whether to accept the lowest bidding price, this decision will be informed to all tenderers, including the tenderer having submitted the lowest price. If the price is accepted, the DEA and the winning tenderer will enter into the concession agreement after a standstill period of 10 days. As soon as the concession agreement is signed by the DEA, it is binding for the Danish State. However, the agreement will be subject to two temporary reservations still:

(1) the Danish Parliament (Folketinget) adopting the necessary amendments to the RE Act, among other things settlement terms, by no later than 1 April 2017,

(2) the project, as expected, is not prevented or significantly changed because of complaints in relation to granting the construction license.

Both the license to conduct preliminary studies and the construction license will be granted shortly after the signing of the concession agreement. The appeal must be submitted within four weeks of the decision to grant a licence has been announced to the public. While the license to conduct preliminary studies may be exploited without delay, the construction license may not be exploited until expiry of the time limit for appeal.

In the event that legislation on the price tendered is not adopted by the Danish Parliament, or if, contrary to expectations, the project cannot be completed because of complaints, the concession will be revoked (i.e. the concession agreement will be cancelled/cease without notice), unless, within the framework of the relevant procurement regulations, another agreement can be established.

The Horns Rev 3 decision process

For the Horns Rev 3 project, the deadline for best and final offer was 16 February 2015.

The same day DEA evaluated that all tenders were compliant and selected the best and final offer among the compliant tenders which contained the lowest price.

26 February 2015, the signatory parties to the energy agreement (i.e. all political parties behind the energy agreement) decided to accept the winning offer. The tenderers were informed informally on the phone immediately after the decision, and later the same day the award of the decision was notified formally by email to all prequalified.

27 February 2015 the European Commission wrote to the Danish representation in Brussels that it had concluded that the tender was compatible with the EU State aid rules.

8 April 2015 the concession agreement was signed. The relatively long period from the award decision to the signing of the concession agreement was due to practicalities on both sides. However, the agreement could easily have been signed immediately after the expiry of the standstill period, if so desired.

The Horns Rev 3 concession agreement was conditional upon three reservations. The three reservations were lifted on the following dates:

- 12 May 2015 when the amendment to the Act which incorporates the successful tender price and other terms of settlement into the RE Act was decided by the Danish Parliament.

- 21 May 2015 the licence to conduct preliminary studies and the construction licence was granted to the concessionaire. There were no appeals about the licences for Horns Rev 3.

For the Horns Rev 3 tender a third reservation was made in the Concession Agreement in relation to financing of the subsidy. This reservation was cancelled 2 July 2015.

Before the end of 2016, the Danish Parliament must have adopted long-term treaty-compliant financing of the expansion of Danish renewable energy, including the price supplement for Kriegers Flak. The Danish Energy Agency expects that in good time before a best and final offer is to be issued, a solution will be found regarding future financing for the expansion of Danish renewable energy. The draft concession agreement for Kriegers Flak therefore does not contain a reservation regarding treaty-compliant financing of the price supplement.

Furthermore, the compatibility of the tender with the EU State aid rules is to be clarified by notification to the EU Commission. DEA expects that approval will be issued before the best and final offer is to be submitted. Therefore the draft concession agreement does not contain reservations regarding approval of the tendering procedure from the European Commission.

Q (25.11.2015): Public Procurement Directive/Concession Directive

Reference is made to Q 14.07.2015 regarding articles 62 and art 63 of the current Directive on Public Procurement (2004/18/EF). According to DEA's answer to the above question, the advertising rules in Article 64 applies when a concessionaire, who is not a contracting authority, awards work contracts above a certain threshold to third parties. A new Directive on Public Procurement (2014/24/EU) and a new Directive on the Award of Concession Contracts (2014/23/EU) have been adopted and the time limit for implementation of the Directive is assumed to be 18 April 2016.

Q1: Could DEA inform if article 64 of the current Public Procurement (2004/18/EF) still will be applicable for Kriegers Flak, or if it will be replaced by similar advertising rules under the new Directive(s), and in case identify the relevant articles?

A1: Article 64 (as well as art. 62-63 and 65) of the Directive 2004/18/EC does not apply on Kriegers Flak since Directive 2004/18/EC is no longer in effect in Denmark, cf. § 196,4 in the Danish act "udbudsloven" (act no. 1564, 15 December 2015). No similar obligations on the concessionaire are repeated in Directive 2014/23/EU. Hence, the DEA will not include provisions imposing such obligations - or similar advertising rules - on the concessionaire in the concession agreement.

Q2: If such an obligation to advertise/publish the contract notice applies, does it presuppose that the award of such a contract must be based on competitive tendering between several tenderers?

A2: Not relevant due to the answer to Q1.

Articles 62 and 63 of the Public Procurement Directive

Q (14.07.2015): In connection with the Horns Rev 3 tender the following statement was made in clause 10 of the final tender conditions:

“Reference is made to Articles 62 and 63 of the Public Procurement Directive:

According to Article 62, where the concessionaire is a contracting authority as referred to in Article 1(9) of the Public Procurement Directive, it shall comply with the provisions laid down by the directive for public works contracts in the case of works to be carried out by third parties.

According to Article 63, where the concessionaire is not a contracting authority, when awarding works contracts to third parties where the value of such contracts is greater than the threshold value for concessions (at present DKK 38,624,809), it shall apply the advertising rules defined in Article 64”.

The requirements, inter alia, entail publication or announcement by the concessionaire of a contract notice when tendering for works contracts from third parties.

Can the Danish Energy Agency confirm whether

(i) A similar provision is expected to be included in the tender conditions for Kriegers Flak; and if so

(ii) Whether the provision allows for both announcements of tenders, in relation to works to be delivered by third parties, through a contract notice published in accordance with the Public Procurement Directive as well as by other means of notification than the contract notice i.e. publication through qualification systems as defined in the Utilities Directive (in Danish: “Forsyningsvirksomhedsdirektivet”); and if not

(iii) Whether the Danish Energy Agency would consider expanding the scope of allowed publication methods, under the tender conditions for Kriegers Flak, to also allow for publication through such qualification systems.

A: (i) The DEA can confirm that a similar provision is expected to be included in the tender conditions for Kriegers Flak.

(ii) The DEA is obliged by article 63 in the Public Procurement Directive (2004/18/EF) to take all necessary measures to ensure that public works concessionaires, which are not contracting authorities in the meaning of article 1(9), apply the advertising rules defined in article 64 in the Public Procurement Directive (2004/18/EF) when awarding works contracts to third party where the value of such contracts is equal to or greater than the threshold stated in article 63 in the Public Procurement Directive.

A concessionaire that is not a contracting authority has to follow the requirements set out in article 64 in the Public Procurement Directive (2004/18/EF) if the concessionaire wishes to award works contracts to a third party. The

concessionaire shall make known their intention by way of a notice that fulfils the requirement set out in article 64(2) and must therefore contain the information referred to in Annex VII C and apply the Commission's standard forms. The notice has to be published in accordance with article 63(3) or 63(4) in the Public Procurement Directive (2004/18/EF). Any notice that differs from these requirements would be contrary to the provisions of Article 64 in the Public Procurement Directive (2004/18/EF).

Though it is worth stating, that article 64 in the Procurement Directive only obliges the concessionaire. Nothing prevents tenderers, who cannot yet be described as a concessionaire, from conducting market consultations in order to form an impression of the prices on the works they are expecting to perform in case the tenderer wins the tender and is being awarded the concession agreement.

(iii) The DEA is – as stated above – obliged by article 63 in the Public Procurement Directive to take all necessary measures to ensure that the public works concessionaire applies the rules defined in article 64 in the Public Procurement Directive when awarding works contract to third party. The DEA cannot derogate from article 63 in the Procurement Directive and can therefore not expand the scope of allowed publication methods as set out in the tender conditions for Krigers Flak.

Issues in connection with the concession

Q (26.06.2015): Fees for handling of applications. How large are these fees, size wise?

A: The DEA is authorised to charge a fee for work carried out in connection with the handling and supervision of the licences, cf. section 1(3) in the Executive Order no. 835 of June 2013 on the payment of fees in connection with processing and supervision of the licences, cf. the Electricity Supply Act and the Act on Promotion of Renewable Energy.

The fee is based on the number of work hours spend in connection with the handling and supervision of the licences and multiplied with an hourly rate. In 2015 the hourly rate is 919 DKK. The hourly rate is based on an average wage of the employees participating in the regulatory approval and can therefore vary from year to year.

There is considerable uncertainty associated with estimates of the number of hours. It will vary from case to case. Based on the experiences with previous offshore wind farms, a rough estimate on the number of work hours spend in connection with the regulatory approval is around 100-200 work hours for the entire lifetime of the project. The vast majority of these hours will be used in the construction phase.

Customs. As Krigers Flak is situated at the border of three states, how should customs/ tax and other cross border issues be handled?

A: Large parts of the Krigers Flak are situated outside the 12 mile limit, which is also the EU customs frontier. Materials transported to the territory must therefore be declared to the customs authorities. If the materials are transported from a business established in Denmark you have to declare to the Danish Customs and Tax Administration, SKAT.

SKAT provides the opportunity of using a simplified procedure: Application for local clearance procedure, export (indication of period). The procedure reduces the administrative burden considerably. Please inquire with the Custom's Guidance in Denmark, telephone number +45 72221212, regarding the use of the simplified procedure in Denmark.

As a result of the harmonized European tax codes it is easy to import and export goods and services in the EU as the national administrations follow the same rules. This means for instance that the simplified procedure is also available in other EU-member states such as Germany and Sweden.

Q: The DEA has received inquiries about the legal consequences of the ownership requirements in the Act on Electricity Supply which regulates who can apply for a license for the operation of a Danish offshore wind farm. Article 10 in the Act states that the owner must have the necessary technical capacity. The question is, whether this in effect prohibits investors without the necessary technical capacity in house (such as pension funds and the like) from acquiring a license for operating a Danish offshore wind farm?

A (13.01.2014): The DEA can confirm that the Act does not prevent licensees of Danish offshore wind farms from relying on the supply of technical capacity from other operators. This fact is also expressed in the contract notice for the Horns Rev 3 tender (published in December 2013) where specific legal requirements in relation to the operation and maintenance of the wind farm are clearly stipulated.

Q: Should relevant information e.g. shipping, fishery etc. from Danish agencies be requested by the bidder or by the DEA?

A (12.12.2013): As a general rule the DEA functions as a One-Stop-Shop in Denmark for all matters concerning offshore permitting etc. This ensures that the actual winner of the concession receives the necessary permits for constructing the offshore wind farm as quickly and easily as possible. However, more generic questions can of course be forwarded directly to the other authorities. When in doubt about the character of the question we advise you to consult with the DEA before contacting other authorities.

Q: Is it possible for tenderers, in advance, to discuss and retrieve information on the monitoring programme and the required analyses?

A: When the EIS is published the potential bidders will get a good understanding of whether additional environmental studies or monitoring activities etc. will be made part of the concession or tender. Those will be described in some detail in the EIS. When the winner of the tender starts preparing the project, it will be possible to discuss further all the details of the actual implementation of the required environmental studies etc.

License & Authorisation

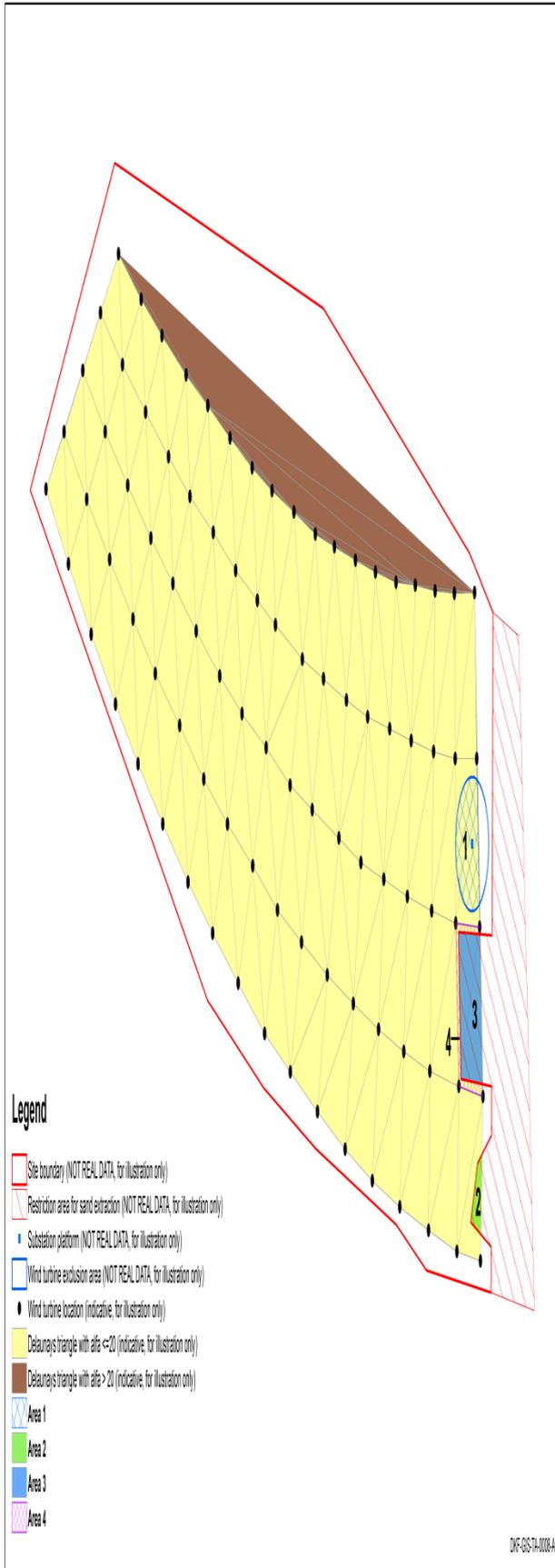
Q (08.08.2016) Area calculation

Could you please clarify few issues associated with area calculation using Delaunay's triangulation method. Due to more irregular shape of Kriegers Flak site boundary (resulting from sand extraction area in the middle and location of substation platforms) comparing to Rodsand 2 example provided by DEA, some of the Delaunay triangles with $\alpha \leq 20$ are falling outside of site boundary or inside the 1km exclusion zone from substation platform. Please clarify which type of the areas illustrated on the attached image can be excluded from wind farm area calculation (max. 132 km²):

Area 1 – area is within the Delaunays triangle with $\alpha \leq 20$ and within 1 km buffer from substation platform.

Area 2 and 3 – area is within the Delaunays triangle with $\alpha \leq 20$ but outside of site boundary (within sand extraction restriction zone)

Area 4 - area is within the Delaunays triangle with $\alpha \leq 20$ but it forms a slither resulting from majority of the Delaunay triangle with $\alpha \leq 20$ being outside of site boundary.



A (24.08.2016):

The Delaunay method referred in the Q&A and tender material with $\alpha \leq 20$ will be used to calculate the total area occupied by the planned wind farm, which cannot exceed 132 km². The area is calculated on the basis of the coordinates of the center of the foundations. While all foundations must be erected within the site boundaries, it is not a demand, that the entire calculated area is within the site boundaries.

In other words, if a layout respecting the tender material requirements results in a calculation, where some triangles are crossing the site boundaries, the calculated area will still be representative for the corresponding layout; no triangle should be excluded or truncated. The only allowed correction to be applied on the calculated area is the exclusion or truncation of triangles crossing the 200 m buffer zone on either sides of the export cables, as well as the 1,000 m buffer zones around the platforms, where wind turbines must not be erected.

Consequently it means that in the illustration for this question, area 1 will be excluded from the calculation of wind farm area, while areas 2, 3 and 4 will not.

Q (24.05.2016) Wind farm area and cables

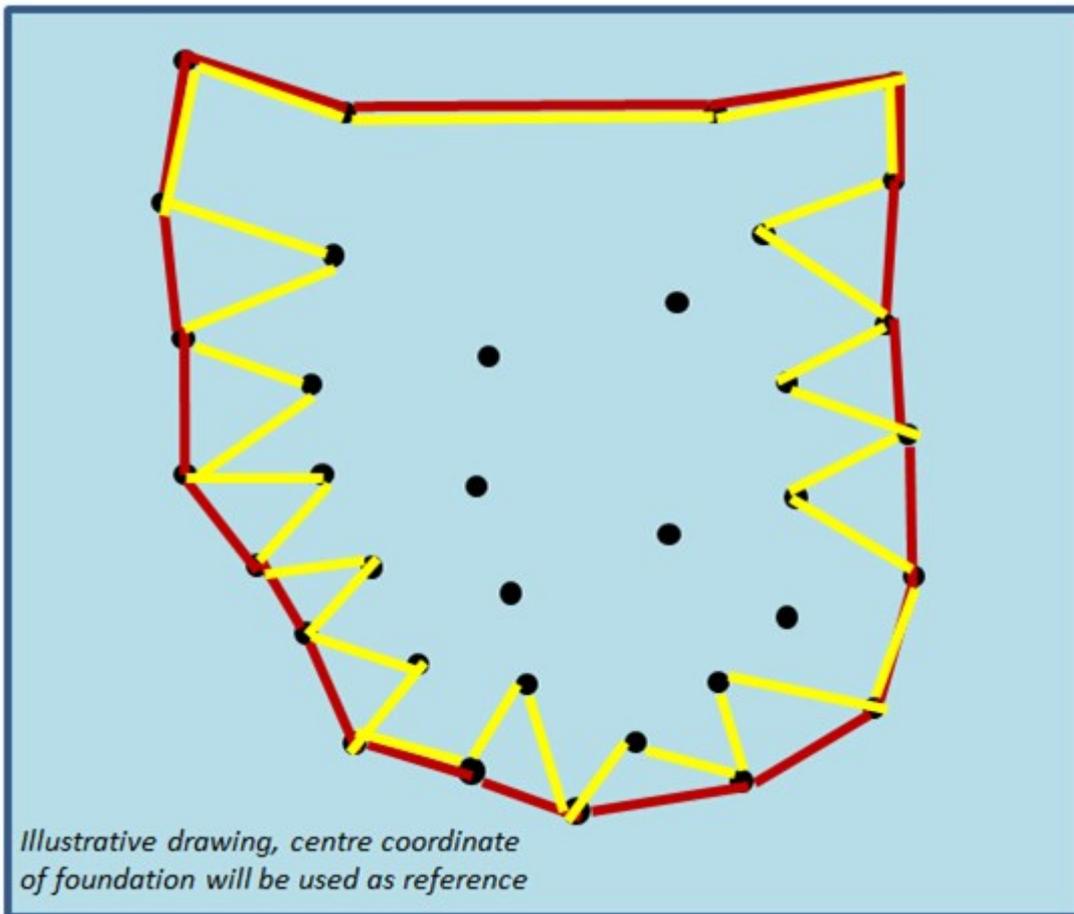
Can the DEA confirm that:

1) A 0.22km²/MW ratio will be applied to derive the exact WTG area for area A and B (following also the ~200 MW and ~400 MW restrictions accordingly), allowing for some re-sizing of area due to over/under planting, and potential moving of up to ten turbines from the eastern to the western area.

2) Area B will be possible to split in two 200 MW sites, allowing for a "strip" of area between the two sites that will not be included in the used area calculation.

3) All inter array cables are excluded in the calculated area

4) A triangulation method will be applied when calculating the used area, see picture below



A (21.06.2016):

1) For the 600 MW Kriegers Flak offshore wind farm, the total covered area must not exceed 132 km². This area is calculated on the basis of a 0.22km²/MW ratio for an installed capacity of 600 MW. However the 132 km² is a fixed area, even though it is possible to build between 590 and 610 MW. As long as the total area does not exceed 132 km², the DEA will not interfere with the distribution of area between the eastern and the western area.

2) For the sake of other interests' at sea and especially environmental concerns, the DEA can't allow the eastern area to be divided into two sub-areas, with a "strip" of area between the two sites, that will not be included in the used area calculation.

3) The area is calculated on basis of the coordinates of the foundations, hence the inter array cables have no influence on the calculation.

4) The DEA intends to base the calculation of the area on a Delaunay Triangulation Method with an alpha value of $\alpha=20$ and calculated in kilometer. Find a description of the method [here](#).

Q (10.03.2016): Reporting and Data publication obligations by the Concessionaire (see Appendix 7): DEA assures to treat the information confidentially. Can DEA give details on the planned use of this data?

A (17.03.2016): The DEA plans to integrate the MetOcean data in the existing meteorological and oceanographic models in order to further develop these models. The DEA plans to use the production data and their associated wind conditions to enhance the wind resource modeling in Denmark with insight of planning the future offshore wind farms in the Danish waters. These data can also be used for the validation of wind resource assessment models, which can further be used for potential new tenders.

Q (10.03.2016): Reporting obligations by the Concessionaire (see Appendix 7):

DEA asks for report on “experience with turbine and foundation technology, including measurements”. Can DEA specify the desired scope and detail level of measurements?

DEA asks for report on “experience in relation to safety-related operational incidents”. Can DEA specify the desired scope and detail level of incidents?

A (17.03.2016): The DEA does not expect detailed analysis in the technical reports, but a general presentation of the wind farm’s behavior when in operation. Parameters such production data, wind conditions measured from the nacelle, wind turbines availability, reasons for downtime... The overall content of the required annual reports can be agreed with the concession holder upon contract signature.

Q (10.03.2016): Data publication obligations by the Concessionaire, as “shall be laid down in a manual to be prepared” (see Appendix 7). Can DEA provide more details at this point in time for the following issues:

DEA asks for report on “Complete metadata with description of measuring equipment (...)”. Can DEA (a) define the meaning of “complete” and (b) specify the desired scope and detail level of measurements?

DEA asks for report on “Delivery of data to DEA, or a named third party”. Can DEA give more details on (c) requested resolving times, (d) interfaces, (e) delivery of live or archived data, (f) delivery frequency?

A (17.03.2016): The DEA means by “complete” that the manual should contain all the information needed to let the DEA or the selected 3. party to complete the data analysis and quality assessment. It could for example be any installation report or logbook associated to the different measuring instruments.

At the moment, the DEA does not have any specific requirement regarding neither the details of the data content nor the frequency and the interface that should be use to perform the data transfer. The final details about the data delivery and so on can be agreed with the concession holder upon contract signature.

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.

EIA & Preliminary Surveys

Q (02.05.2016) Noise modelling and hammers

The noise modelling undertaken as part of the EIA for Kriegers Flak identified a worst case modelling scenario which included the maximum hammer energy of 3000kJ. The market can provide hammers which can strike with a maximum energy higher than 3000kJ. Would it be possible to use larger hammers without taking advantage of their full potential thereby maintaining a maximum striking energy below 3000kJ? If so, will this require any further work related to noise modelling, or would the existing modelling provide sufficient information as is?

A (18.07.2016):

The regulation to limit the environmental impact caused by underwater noise is thoroughly described in the tender conditions. The Concessionaire is required to prepare a prognosis for underwater noise to demonstrate their compliance with the regulation. A detailed guideline for the preparation of underwater noise prognosis can be found in the following document "Guideline for underwater noise - Installation of impact-driven piles".

The licence for the construction of Kriegers Flak states that the so-called accumulated SEL from each installation sequence must not exceed a threshold value of 190dB. The methods to comply with this threshold value can be decided by the concessionaire. This means, that there are no restrictions on the choice of hammer as long as the threshold value will be respected.

Q (06.01.2016): EIA hearing and Espoo hearing

What are the results of the hearing, when will we be informed about possible consequences and challenges/mitigating actions needed?

- **For turbine size or other challenges versus cranes**
- **For mitigating actions versus marine mammals**
- **For mitigating action versus raptors and ducks?**

How is the process of the hearing further?

Are the results only to be presented in the final tender conditions?

Has there in the recent, post EIA ESPOO hearing been a demand on mitigating actions also from the Swedish side, when it comes to air and marine defense?

A (17.03.2016): There will be no restrictions regarding the wind turbine size, due to cranes, and no mitigating action versus raptors and ducks.

Terms regarding underwater noise will be inserted in the construction licence, to protect marine mammals (seals and porpoise). The terms have been set on the basis of the conclusions of a working group including Danish experts on the area. The need for special terms has arisen because ramming the foundations for the new larger types of turbine produced significantly more noise than for the turbine types hitherto used in Danish offshore wind farms. A limit value for impacts will be stipulated, but the concessionaire is free to choose any method which complies with this limit.

The public hearing of the EIA as well as the ESPOO hearing has been concluded. All responses from the public hearing are published at the homepage of The Danish Nature Agency, [here](#). The responses from the ESPOO hearing will be published on the DEA homepage.

Revised preliminary tender conditions including the consequences of the EIA are planned to be published in March 2016. However a supplementary consultation with public authorities is planned for May/June 2016, to ensure that the terms inserted after the EIA comply with regulatory requirements.

(Updated Answer 16.06.2016)

There have been different questions regarding the Espoo hearing on the Offshore Wind Farm Kriegers Flak.

The Danish Energy Agency has prepared a summary of the comments from Germany and Sweden and some answers. Poland did not reply to the ESPOO hearing. The document containing both comments and answers can be find [here](#).

Q (11.01.2016): It follows from the EIA technical background report on air traffic that the aviation marking of the wind farm should possibly be synchronised with flashing lights on surrounding aviation obstacles, hereunder other offshore wind farms, e.g. Baltic II. Could you please confirm whether synchronisation will be required? If yes, please clarify 1) if other wind farms than Baltic II should be taken into consideration, 2) if DEA will provide and be responsible for the signal or impulse needed to obtain the synchronization and at which interface it will be available, and 3) the required level of synchronisation if DEA source fails to provide the global area synchronisation input signal.

A (10.03.2016): The aviation marking of the wind farm should be synchronized with nearby/surrounding flashing obstacles. This regulation is only national meaning that there is no demand on synchronization with Baltic II as the wind farm is not on the Danish plate. The signal impulse needed for synchronization is the responsibility of the Traffic Agency. The information can be found in the enclosed documents (in Danish), the executive order [BL 3-11 2. udgave af 28. februar 2014](#) and its interpretation [Vejledning til BL 3-11 Bestemmelser om luftfartsafm_346rkning af vindm_370ller](#).

EIA hearings and possible limitations or mitigating actions by the developer

Q (26.06.2015): The hearing of the EIA reports comes quite late in the tendering process. At Horns Rev 3 that lead to significant changes in the concept after preliminary bid. Could these issues be advanced?

- **Possible limitations on WTG size due to cranes?**
- **Limitations on piling due to marine mammals**
- **Limitations to the operation of the wind farm due to birds of prey and cranes**
- **Possible payments for changes in shipping routes, are those the responsibility of the concessionaire?**

A: The EIA for Kriegers Flak, including the background reports, have currently been sent out in hearing at the various competent authorities. It is the aim to have issues (stated in bullets above) clarified before publication of the tender conditions early October 2015.

Q: Will the EIA for Kriegers Flak/Horns Rev be translated to English (including appendices)?

A (08.04.2014): No, the EIS (Environmental Impact Statement) will be written in Danish, but will include a summary in English. The majority of the appendices concerning offshore themes will be written in English.

Q: In regards to Environmental restrictions during construction:

- 1. Will the Environmental restrictions during construction rules be the same as for Anholt?**
- 2. What kind of tools will be required during piling? Pingers, sound measurements, sound barriers?**
- 3. When will the construction restrictions be known since it is needed for the foundation procurement?**
- 4. Can the Danish Environmental Protection Agency be contacted directly to find out what kind of environmental program that will be required during construction**
- 5. Is the environmental protection program from previous offshore wind farms in Denmark publicly available?**

A (08.04.2014): 1. Some of the environmental restrictions are of a general character and will be identical to the restrictions set for the construction of Anholt. However, also site-specific restrictions can be expected. The precise content and outline of the restrictions will be available once the Danish authorities have approved the environmental impact statement and decided on the environmental restrictions.

2. At the moment there are no specifications with regard to tools used during piling. Specifications for the concrete project will be known when the Danish authorities have approved the environmental impact statement and decided on the environmental restrictions.

3. Specifications regarding construction restrictions for the concrete project, will be known when the Danish authorities have approved the environmental impact statement and decided on the environmental restrictions.

4. The requirements for a possible environmental program will be decided in cooperation between different parts of the Danish authorities and will be known when the Danish authorities have approved the environmental impact statement. For the Horns Rev 3 this is expected in May 2014.

5. Yes. Information can be found on the homepage of the [Danish Energy Authority](#).

The page contains among others the permits for the farms that have been built in Denmark. For each farm the information is contained in the permit or license for establishing the wind farm ("Etableringstilladelse"). The material is only in Danish. The tender conditions for Anholt, though, include a model license for establishing the wind farm which has been translated to English, which can be found [here](#).

Q: Would it be possible to do two separate EIA documents for the KLF OWF tender and the "EnergiNet DK" grid connection as done in Anholt? If so it would be possible to keep the deadline of 30th April 2014.

A (08.04.2014): After careful scrutiny the DEA reached the conclusion that it would not be possible to do two separate EIA for the grid connection and the offshore wind farm respectively. Such an approach could be in conflict with the EIA Directive (85/337/EEC), see the enclosed interpretation line suggested by the Commission from March 2011, and could consequently lead to complaints that could endanger the whole bidding and construction process.

The DEA has decided to publish draft versions of Offshore EIA technical background reports for Kriegers Flak sequentially as they are finalized in draft version from now and until June 2014 tentatively. The first draft will be published in the beginning of April 2014. The reports cover all aspects of the environmental pre-investigations with regard to the offshore wind farm. The final and approved reports will be published together with the EIA.

Q: When will the EIA for Kriegers Flak be released?

A(08.04.2014): The DEA expect a new date to be released in the course of the next months following the outcome of the investigations by Energinet.dk of alternative grid connection solutions as the first designs have proven too costly.

Q: When can we expected to get preliminary / final information about layout restriction caused by communication links, underwater archeological findings, benthic flora and fauna etc.?

A(08.04.2014): The technical background reports for both Horns Rev 3 and Kriegers Flak that are being published in draft from April until July 2014 will contain preliminary information about restrictions to the OWF caused by communication links, ship-risk analyses, benthic flora and fauna, fisheries etc.

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](#).

Q: According to the timetables the preliminary EIA documents for HR and KFL are now ready and the final versions will be ready for public consultation in 3 months' time. Is that correct?

A (12.02.2014): Yes, that is correct. For the Horns Rev 3 EIA will be made public available in the beginning of May 2014. Unfortunately, the EIA for KF will be delayed due to the requirement by the Agency for Nature in Denmark to include another alternative site for the construction of the onshore transmission facilities. This entails new surveys and analysis. We expect to publish a new date for the public consultation of the EIA for Kriegers Flak in the following weeks.

Q: Has any background “environmental report” used for the EIA been published so far?

A (12.02.2014): No, but depending on the responses from the competent authorities, the technical background reports for both Horns Rev 3 and Kriegers Flak will be published in draft version as early as during March-April 2014. The decision to publish the technical background reports constitutes a new practice compared to previous tenders and is specifically intended as means to bridge the information gap created by the delayed EIA in the case of Kriegers Flak.

Q: Will the EIA reports include recommendations on layout restrictions and/ or suggestions on precautionary measures for the construction and operation phase?

A (12.02.2014): Yes, the EIA will contain recommendations regarding use of best practice. The EIA is based on the ‘Offshore Technical Project Description’ and conducted for the whole for the 160 square kilometers of pre-investigation area. Until the authorities’ approval of the EIA, it is not possible to conclude on the specific requirements for precautionary measurements.

Q: In order to evaluate risk to cables we are looking to obtain reports / data on the following:

- **Intensity of fishing effort in and around Kriegers Flak development site (how many trawler movements per year)**
- **Type of fishing methods used in and around Kriegers Flak development site: trawling gear, likely penetration into the seabed**

A (19.12.2013): As part for the environmental impact assessment for the Kriegers Flak project, detailed studies of the fishing activities in the area are conducted and reported.

The report will be made public together with the EIS report prior to the Public Hearing. Energinet.dk is cooperating with the relevant authorities and parties to try to make the final draft of the report available as soon as possible. At the moment (December 2013) the timeframe for such a final draft report is expected to be May 2014, but can be subject to changes during the first months of 2014.

Q: Do you hold copies of the following reports in Study ID 08-001 (p. 62): DONG Naturgas A/S. Baltic Pipe, Offshore Pipeline. Environmental Impact Assessment, October 2001.

A (19.12.2013): The report can be found here:

[DONG Naturgas A/S BalticPipe, Offshore Pipeline Environmental Impact Assessment October 2001](#)

Q: Study ID 08-002 (p. 63): Ministry of Food, Agriculture and Fisheries – Yearly Fishery Statistics. The entry mentions some contacts in the Danish Directorate of Fisheries. Are we at liberty to use those contacts, and/or pass on to a Third Party Contractor?

A (19.12.2013): Yes.

Q: Do you have any updated information regarding the scoping report with detailed information about the investigations and assessments undertaken in relation to the EIS?

A: The scoping report is going to be finalized within the next weeks.

We plan to make it public available on the web page of ENDK together with the other available information on the project.

Please consult the web page of Energinet.dk regularly.

Please be aware that the language of the report is Danish due to the fact that the scoping report is mainly targeting the Danish public.

Q: Are there demands on specific type of turbines or other limitations in regards to the tenders?

A: As a consequence of the EIA, there will have to be made choices in terms of turbines. The EIA is conducted on the basis of a so-called “worst case scenario” which means that all known equipment and infrastructure within the relevant timeframe of the tender will be covered by the EIA. In order to make sure that all relevant technologies are covered by the EIA the DEA is planning to send the EIA project description with the technical requirements specifications in a hearing with the potential bidders. This will ensure that all relevant and realistic choice of equipment are covered by the EIA.

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: What kind of investigations that will be undertaken and when they will be available for external review.

A: By the end of September 2013, a scoping report will be public and will contain detailed information about the investigations and assessments undertaken in relation to the EIS.

Note: The scoping report has been postponed until late November 2013.

Q: Is it possible to provide an estimate of the total costs for the EIA work that will be imposed to potential tenderers.

A: The DEA and Energinet.dk is currently working on estimation the cost for the pre-investigations and the EIA which will be imposed to the winner for the tender. An estimate is expected to be provided by the end of October 2013.

Q: How will potential project changes in relation to the EIA document (including layout) be assessed and approved?

A: The technical project description which have been made public are not design descriptions for the final wind farm project. It is merely a realistic and a best guess on how a future concessionaire will design the final wind farm. This technical project description thus provides the framework which a concessionaire can navigate within. The EIA will relate to a worst-case scenario within this framework. A future concessionaire may wish to deviate from the worst-case scenario, and sometimes also from the framework. Whether deviations from the framework can be contained within the EIA permit/authorization for establishment must be determined individually by the authorities on a case by case basis.

Q: Do you have any updated information regarding the scoping report with detailed information about the investigations and assessments undertaken in relation to the EIS?

A: The scoping report is going to be finalized within the next weeks.

We plan to make it public available on the web page of ENDK together with the other available information on the project.

Please consult the web page of Energinet.dk regularly.

Please be aware that the language of the report is Danish due to the fact that the scoping report is mainly targeting the Danish public.

Q: Is it possible for tenderers, in advance, to discuss and retrieve information on the monitoring programme and the required analyses?

A: When the EIS is published the potential bidders will get a good understanding of whether additional environmental studies or monitoring activities etc. will be made part of the concession or tender. Those will be described in some detail in the EIS. When the winner of the tender starts preparing the project, it will be possible to discuss further all the details of the actual implementation of the required environmental studies etc.

Q: Are there any restrictions on minimum distance from wind turbines and cables to archeological findings and existing cables? Is it possible to get information on the needed measures in regards to potential archeological findings and the costs of these measures?

A: The EIA will include assessment of the marine archaeological interest in the area. Before the EIA is complete and the marine archaeological assessments have been approved by the Danish Agency for Culture, it will not be possible to provide information about possible buffer-zones.

Monitoring programme

Q: Is it possible for tenderers, in advance, to discuss and retrieve information on the monitoring programme and the required analyses?

A: When the EIS is published the potential bidders will get a good understanding of whether additional environmental studies or monitoring activities etc. will be made part of the concession or tender. Those will be described in some detail in the EIS. When the winner of the tender starts preparing the project, it will be possible to discuss further all the details of the actual implementation of the required environmental studies etc.

Geophysical and technical surveys

Question (25.08.2016)

Q: GEO and Fugro, who has done the previous soil investigation campaigns managed to collect soil samples covering all the observed geological units from 17 boreholes spread across the site. However, we believe there were limited on-shore laboratory investigation done on the acquired samples. Several advanced soil parameters; such as, Gmax and other stiffness parameters have not been evaluated. Hence, we would like to request for confirmation whether there are enough undisturbed stored samples with both contractors ('GEO and Fugro) and if we will be allowed to use those samples to do a separate advanced tests in case of a successful bidding.

A (19.10.2016): It is confirmed that soil samples from the geotechnical site investigations are stored at the laboratory facilities of Geo and Fugro. These soil samples can be transferred to the successful bidder for further assessments. It is unclear to which extent there are enough undisturbed samples for further advanced soil testing. The soil samples have already been subject to several advanced laboratory test campaigns. Results from the most recent test campaign were issued to the Tenderers in May 2016. It is likely that still some undisturbed soil materials remain for further testing, but it must be expected that the already performed tests have taken advantage of the most feasible core samples.

Q (25.08.2016): It follows from the model pre-investigation licence, requirement 3.5 that a UXO survey must be conducted and approved by the Joint Defence Command Denmark prior to undertaking geotechnical surveys. Will it - if demonstrated by the concessionaire that appropriate risk assessment and mitigation measures will be undertaken – be possible to deviate from this procedure and potentially undertake a targeted geotechnical campaign prior to a full UXO survey?

A (05.09.2016): The Concessionaire must conduct a UXO survey prior to any geotechnical surveys. The UXO survey, and the result must be sent to and approved by the Joint Defence Command Denmark before any geotechnical survey can be conducted. In order to ease the combination of UXO and other geotechnical surveys, it is possible to split the entire area of interest in minor areas. This process must though be approved by the Joint Defence Command Denmark.

For further detailed questions about UXO survey, please contact vfk@mil.dk.

Q (29.08.2016): It follows from the model pre-investigation licence, requirement 3.5 that a UXO survey must be conducted and approved by the Joint Defence Command Denmark prior to undertaking geotechnical surveys. Will it - if demonstrated by the concessionaire that appropriate risk assessment and mitigation measures will be undertaken – be possible to deviate from this procedure and potentially undertake a targeted geotechnical campaign prior to a full UXO survey?

A (02.09.2016) : The Concessionaire must conduct a UXO survey prior to any geotechnical surveys. The UXO survey, and the result must be sent to and approved by the Joint Defence Command Denmark before any geotechnical survey can be conducted. In order to ease the combination of UXO and other geotechnical surveys, it is possible to split the entire area of interest in minor areas. This process must though be approved by the Joint Defence Command Denmark. For further detailed questions about UXO survey, please contact vfk@mil.dk.

Q (30.05.2016): Pinger data

As a result of the deeper analysis of the provided geophysical ground data, there is unfortunately a low quality of the processed pinger data in the Kingdom Suite model. Is it possible that DEA provides the unprocessed, raw pinger data (measured data) from the company which conducted the geophysical survey? And if yes, how much time would it take to provide these data?

A (08.08.2016): The data can be delivered upon request at Energinet.dk (Jan Havsager: JHA@energinet.dk). Due to the size of the dataset, only one set by prequalified will be sent.

Q (17.02.2016): Is it possible to obtain a complete set of Lab results including test-curves (to extract e50-values) for the Unconsolidated Undrained Triaxial Compression Test (UU) described in the report “Kriegers Flak Offshore - Wind Farm , Geo Investigations 2013 Factual Report – Seabed CPTs and Geotechnical Boreholes - appendix 1C.IX” ?

A (16.03.2016): In order to supply additional geotechnical data for the Kriegers Flak site, Energinet.dk has initiated a re-evaluation of the previous geotechnical laboratory test and also requested further laboratory testing on selected chalk samples retrieved during the geotechnical campaign in 2013.

These additional geotechnical data is planned to comprise of the following:

1. Evaluation of previous performed UU and UCS test, which will including plotting stress/strain data and trying to estimate e50 parameters.
2. Performance of 8-10 Triaxial tests on selected samples from the previous retrieved chalk cores. This will provide drained strength parameters (triaxial strength, angle of internal friction and effective cohesion), as well as stiffness parameters (Modulus of elasticity and Poisson's ratio). In combination with the UCS tests already carried out, these tests should give a good description of the chalk matrix.
3. Performance of 3-5 Full Core Triaxial tests on selected samples from the previous retrieved chalk cores. These tests also provide strength and stiffness parameters (as in 2.) , but in this case for the fractured material, which could also include flint nodules etc. These tests would indicate the chalk properties on a larger scale.

The anticipated time schedule for providing data for the program above is the following:

1. Evaluation of previous UU and UCS tests – 6th of April 2016

2. Triaxial test results - 31st of May 2016
3. Full Core Triaxial test results – 31st of May 2016

Supplementary Geotechnical Laboratory Tests. Part 1 of 3 including e50 tests. Please click on the following link to find the data and scroll down to the bottom of the page:<http://energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Kriegers-Flak-havmoellepark/Sider/data.aspx>

Q (11.01.2016): Given that the soil data may be available at Energinet.dk and possible to clear, we ask for the following details on the soil data of Kriegers Flak:

- 1. Could we get the Chalk grading (classifications) of Kriegers Flak?**
- 2. Could we get the e50 values?**
- 3. Could we get more laboratory results for the chalk which has been documented?**

A (16.03.2016): In order to supply additional geotechnical data for the Kriegers Flak site, Energinet.dk has initiated a re-evaluation of the previous geotechnical laboratory test and also requested further laboratory testing on selected chalk samples retrieved during the geotechnical campaign in 2013.

These additional geotechnical data is planned to comprise of the following:

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The anticipated time schedule for providing data for the program above is the following:

1. Evaluation of previous UU and UCS tests – 6th of April 2016
2. Triaxial test results - 31st of May 2016
3. Full Core Triaxial test results – 31st of May 2016

(Update 27.05.2016):

The last geotechnical data referred in the table below are now available on Energinet.dk's homepage via the following link:

<http://energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Kriegers-Flak-havmoellepark/Sider/data.aspx>

Upload date	Part	Supplementary Geotechnical Laboratory Tests.

2016-04-04	1 of 3	e50 parameters.
2016-04-29	2 of 3	Tri-axial tests on selected samples from the previous retrieved chalk cores.
2016-04-29	3 of 3	Full Core Triaxial tests on selected samples from the previous retrieved chalk cores.

There will not be provided further information on this topic.

Q (09.02.2016): Geotechnical data

By looking through the geotechnical reports of Kriegers Flak, we noticed that there are several boulders and wrecks which have been identified by the geophysical investigations.

Unfortunately we did not find a list summarizing mainly the coordinates and perhaps some sort of description (size of boulder or type of wreck) of those objects.

As these kind of objects are influencing directly the definition of turbine locations in the potential layout of the windfarm, it would be very helpful to get the respective data.

Is this data (coordinates of boulders and wrecks and magnetic anomalies) available and can be provided, or is it already included anywhere?

A (16.03.2016): A list summarizing the coordinates and character of the discovered anomalies obtained from the Side Scan Sonar and Magnetometer analysis can be provided upon request to ENDK (<http://www.energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Krieg...>).

Q (07.03.2016): Could you please confirm that the results of the Uxo surveys by Energinet.dk at Kriegers Flak and along the grid lines are published in the Q&A session for Kriegers Flak, or that the prequalified are informed directly about this in due time prior to the final bid?

A (14.03.2016): The results and the reports from Energinet.dk's surveys will be ready for publication on September 30th 2016, though with potential delay due to weather conditions.

Please note that UXO surveys for the Kriegers Flak offshore wind farm area are not a part of the site investigations performed by the Contracting Entity. It is up to the successful Tenderer to decide if UXO surveys are necessary. The Contracting Entity has made available an UXO desk study including site investigation data which can be downloaded from Energinet.dk's website

Q (07.03.2016): For reassessment of the results of geophysical surveys we would like to ask you to provide the raw data (non processed data). Is it possible?

A: This is nothing new but just a reminder to let you know that the raw data from the geophysical surveys are available upon request at Energinet.dk (Jan Havsager, JHA@energinet.dk) for a fee of EUR 500.

Q (11.01.2016): With reference to the model pre-investigation license (clause 3.5) certain types of pre-investigation activities may cause underwater noise, including in connection with geotechnical surveys. Further, it follows that in connection with noisy activities, pingers and seal scarces must be used. Please clarify whether pingers and seal scarces will be required during potential geotechnical investigations?

A: The use of pingers and seals scarces are usually associated to the pile driving installation of monopiles. The DEA has to approve the investigation program before any geotechnical investigation is initiated. The DEA does usually not require the use of pingers and seal scarces for geotechnical investigations.

Q (25.06.2015): How much capacity can be moved between the substations in the east and the west area, 50MW, 100MW, 200 MW?

A: The transformer platform on the western part of Kriegers Flak has a capacity of 200MW. The transformer platform on the eastern part of Kriegers Flak has a capacity of 400MW. These capacity limitations must be observed during operation. If the OWF developer wishes to install more capacity or relocate capacity from either of the two park areas, e.g. more than 200MW on the western part or more than 400MW on the eastern part, a possibility could be to arrange for an array cable connection to the platform in the other park area to comply with capacity restrictions.

If the developer wishes to relocate capacity from either of the two areas, attention must be given to environmental impact assessment. Based on the turbine-layouts prepared for the EIA, it seems most likely, that the developer could have an interest in relocation turbines from the eastern part to the western part of Kriegers Flak. It is the conclusion of the preliminary assessments, done by the EIA consultant and Energinet.dk, that such a relocation of 5-10 turbines from the eastern to the western part of Kriegers Flak, will not be in conflict with the environmental impact assessment prepared for the Kriegers Flak OWF and can be applied for and approved by the Danish Energy Authority in the Detailed Project (cf. Tender material for Kriegers Flak).

Q (25.06.2015): During our WTG layout work found that Energinet has placed the substation KFL-B in an area that has been defined to contain Shallow Gas/Organic Deposits according to the document. "Kriegers Flak OWF Geotechnical Survey25 Results" page 21 from August 2013 written by Ramboll (se bilag 1, side 2). This could potentially be a problem both for Energinet as well as for us during the installation of array cables. Has it been found that the area in question in fact does not contain any Shallow Gas/Organic Deposits?

There has been raised a concern about the possible existence of shallow gas in the sediments within the Kriegers Flak Offshore Wind Farm area, especially in the vicinity of the planned KFB substation. Shallow gas is in general regarded as a potential geohazard due to possibly soft organic rich layers – or diffusion of gas, when performing further geotechnical operations and when installing cables and/or foundations.

Below, the geophysical mapping of the gas blanking areas, and the results from in-situ geotechnical 'ground truth' investigations, is dealt with in more detail while focusing on potential gas/organic layers. However, it shall already here be mentioned that no gas diffusion, nor sediments that could cause the gas, have been observed during the borehole and CPT investigations in that area.

Background

Geophysical 2012

In the geophysical reports for the Kriegers Flak OWF pre-investigation area, eg. "Kriegers Flak OWF, Geophysical survey results", by Ramboll, August 2013, sub-areas at relatively shallow depths was mapped due to distinct 'blanking' and/or 'phase reversal' in the seismic records (see the figure below which is a copy of Figure 11-1 in the above report).

Figure 11-1 shows depth below seabed (DBS) in m of the Hazard blanking unit (potentially hazardous area).

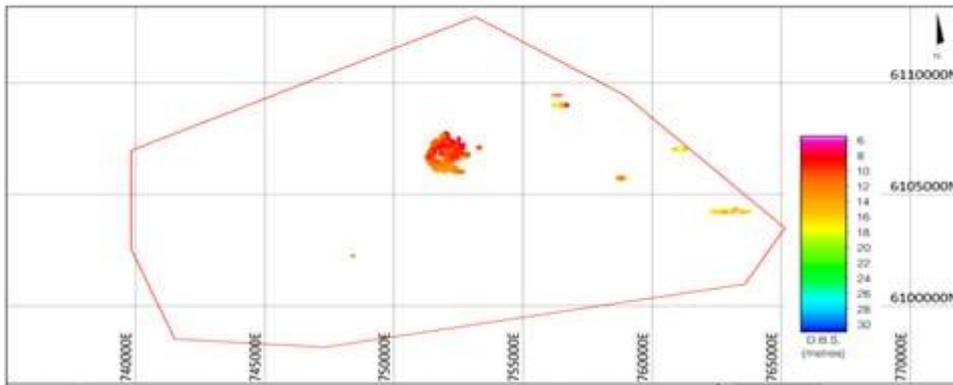
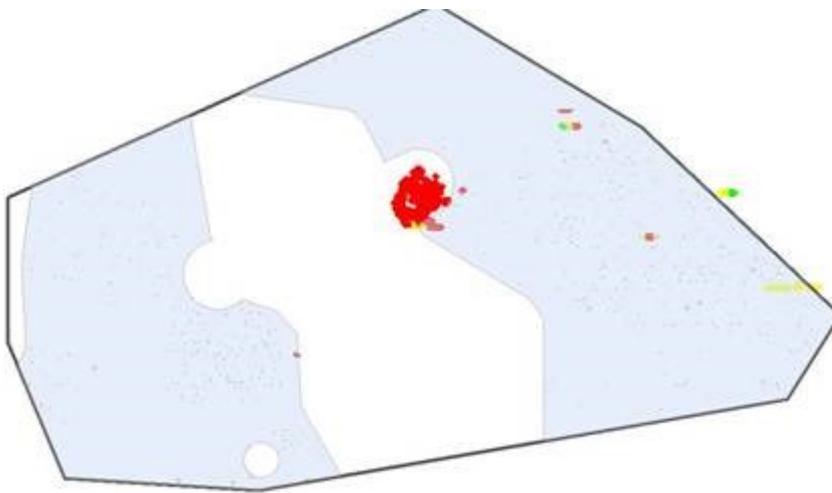


Figure 11-1 Depth below seabed (DBS) in m of Hazard Blanking Unit



The 'blanking/phase reversal' zones were tentatively interpreted to be caused by accumulation of gas produced in and migrating from possible organic rich units below the top of the zones. One larger gas blanking area was mapped in the mid north-eastern part of the KF OWF pre-investigation area. The top of the blanking in that area is located c. 9-13m below seabed.

Geotechnical 2013

One borehole and one seabed CPT was deliberately performed within the above mentioned larger zone of seismic blanking, KF-BH008 and KF-CPT008, in order to further investigate the potential occurrence of gas and/or organic rich sediments. The geotechnical contractor was beforehand informed about the potential geo-hazard, however no gas diffusion, nor any organic sediments, were observed in the c. 50m deep borehole.

Supplementary geotechnical investigations in 2014

Energinet.dk performed supplementary borehole and CPT geotechnical investigations in 2014 in the KF-BH008 area (at, east and west of KF-BH008), because that region for various reasons is the preferred area to place the KFB platform. Again: No gas or organic layers were observed during the in-situ investigations; hence Energinet.dk has chosen the KFB location to be centered on KF-BH008.

Conclusion

No gas or organic rich sediments have been encountered during the extensive borehole and CPT investigations carried out by Energinet.dk around KFB within the larger gas blanking zone. Instead; clay till is encountered right from the seabed and down to c. 30m depth, where chalk is found.

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 possible to retrieve a workable format file (MS Excel) of Enclosure 1B.05 (Summary Laboratory Test Results) to the Geo Investigations 2013 Factual Report?

A (21.01.2014): The laboratory test results (Enclosure 1B.05), and all other test results for that matter, are registered in the AGS 4.0 data file, which is part of the deliverables. We kindly suggest, that the laboratory test results shall be retrieved from the AGS file. A free AGS to Excel converter can be downloaded from this web page:<http://www.ags.org.uk/>

Q: When comparing the results from the Geophysical survey and the Geotechnical survey it is evident that there are differences in the geological interpretations of the results of the two surveys. An updating of the geological interpretation of the geophysical survey is therefore found necessary. Will such a revision be made public by the DEA?

A (09.01.2014): In 2012 geophysical investigations with seismic mapping was completed for both wind farm areas. Detailed 3D geological models primarily based on seismic stratigraphy were provided as a result of this survey. In 2013 regional geotechnical surveys were completed consisting of boreholes and CPT tests at both wind farm areas.

Furthermore in 2013 an integrated modeling of the geophysical, geotechnical and geological results has been initiated to produce a revised regional 3D geological model for both wind farm areas, to produce updated descriptions of the geology of the units of the revised 3D geological models, to provide updated descriptions of the geotechnical properties of the revised 3D geological models and to produce revised charts from the revised 3D geological models (isopach maps, elevation charts and detailed and illustrative cross sections).

The results from the above mentioned integrated updated geological modeling are intended to be used as a basis for developers to evaluate the soil conditions to estimate limitations and opportunities related to the foundation of offshore wind turbines.

The results are planned to be published around February 1st (Kriegers Flak) and February 15th (Horns Rev 3).

Q: Would it be possible for DEA to certify geophysical and geotechnical reports rather than all potential bidders having to certify the information separately?

A (12.12.2013): There is no requirement to certify the pre-investigations following the rules on project certification in Denmark, cp. the standard IEC 61400-22. The geotechnical reports together with other (post-bidding) investigations are only relevant in respect of the certification of the actual and project-specific design of the foundations.

Visit the web page of The 'Energy Agency's Secretariat for the Danish Wind Turbine Certification Scheme' for more information on Danish certification rules <http://www.wt-certification.dk/>

Q: Would it be possible to receive maps in a GIS relevant format instead of in pdf. The charts and maps will be of much higher quality if this could be organized.

A (12.12.2013): All results, maps and layers from the Geophysical survey are available in ArcGIS shape format, or other format ready to be imported into GIS. These files are an integrated part of the geophysical data package that is only available on a hard drive by request to Energinet.dk.

Geotechnical: All boreholes and CPTs are available in a format ready to be imported – as positions – into GIS.

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.

MetOcean

Question (30.09.2016)

Q: The DEA has provided information published in a project room to be used for potential bidders in the Kriegers Flak Offshore Wind Farm. The information consist of reports and wind data.

The wind data are derived from a simulation model Multi-Scheme Ensemble Prediction System (MSEPS). Time series with hourly data at 70, 100 and 130m were produced for three positions in the Kriegers Flak area. The MSEPS model has according to the report, ATR_14_MetOcean_Version_5.1(2211581).pdf, been calibrated against measured wind data performed in the 102m high met mast Fino2.

However, it has come to our understanding that the measurements are significantly influenced by the mounting arrangements in the mast. Significant correction factors should be applied to the data. The top mounted anemometer, that should be least influenced, is subject to significant over speeding.

How has this been accounted for in the DEA provided information?

A (03.10.2016): As mention in the report at page 22 has the data been through quality checks by the owner prior to release, so no further quality checks or adjustments have been performed.

Q (20.05.2016) According to DKF Tender Conditions, Appendix 6 Paragraph 3.5: "The minimum height from the bottom-most blade tip on the turbines to the sea surface (HAT) must be 20 meters."

Q: What is this value compared to LAT?

A (26.05.2016): As mentioned in section 6.4 in the MetOcean report available on Energinet.dk's homepage (http://www.energinet.dk/SiteCollectionDocuments/Engelske%20dokumenter/Anl%C3%A6g%20og%20projekter/ATR_14_MetOcean_Version_5.1%282211581%29.pdf) LAT = MSL – 1.43 m and HAT = MSL + 0.98 m.

Question (31.08.2016)

Q: According to NIRAS Kriegers Flak – Metocean report, the file containing wind data "KF_wind_70m_100m_130m.xls" should include two extra positions (east and west in the KF area). Please make this file available on the website.

A (07.09.2016): The file containing two extra positions is now available on Energinet.dks website. The old file has been replaced by the new one. Use the link Wind.

Q (26.01.2016): With regards to the NIRAS report

Q: With regards to the NIRAS report - Please could the supporting analysis regarding the result provided for extreme wind speed in Table 2 be provided? Why should the value (40.1ms⁰⁻¹) stated in Section 5.4.4 be taken, when higher values are obtained in the analysis of Points 1-5?

A (30.03.2016): The wind analyzed in Sec. 5.4.4 is the wind from the center of the wind farm area whereas the wind in Table 2 represent five selected positions across the wind farm area as shown in the Metocean Report Fig. 2. The data behind can be downloaded from Energinet.dk <http://www.energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Krieg...> "Metocean model data". Both altitude (10m vs. 100m => approx. 1.28) and scale factor (1.13) to be considered.

Q: Please could the tidal range and corresponding tidal water levels be provided?

A (30.03.2016): The tidal range in the Baltic Sea is limited and insignificant compared to surge. E.g. the tidal constituents M2 and S2 is respective 0.0079m and 0.0029m at position 1.

C: Please could NIRAS and/or DNV explain the reason for non-certification of current extremes. The stated values do not seem unlikely when compared with other values in the region (for example, COWI's report for Bornholm in the DNS tender). Similarly, where does the doubling of extreme current speeds originate from in the metocean report for Kriegers Flak substations? The impact of the application of a factor of 2 results in overly-conservative estimates.

A: Site measured current was not available at the time for the calibrations thus the hydrodynamic model is uncalibrated for the wind farm area. For DNV to accept the outcome a safety factor of 2 was required.

Q: I have a question to the file M8_Sensorinformation.JPG. This seems to be information related to the HR-M2 mast. Is it possible to provide this information for the M8 mast so that we could cross-check the position of the anemometers?

A (15.08.2014): Please find the requested sensor information as shown below in this link [here](#)

Description	KKS nr.	Height AMSL (m)	Direction
Cup anemometer	M8 CFA01 CS1071	107	Top
3D sonic anemometer (also measures temperature)	M8 CFA01 CG1061 B	106	NW
Wind direction	M8 CFA01 CG1051 B	105	NW
Absolute temperature	M8 CFA01 CT1011 D	101	SE
Cup anemometer	M8 CFA01 CS0971 B	97	NW
Cup anemometer	M8 CFA01 CS0871 B	87	NW
Cup anemometer	M8 CFA01 CS0872 D	87	SE
Cup anemometer	M8 CFA01 CS0771 B	77	NW
Cup anemometer	M8 CFA01 CS0671 B	67	NW
Cup anemometer	M8 CFA01 CS0672 D	67	SE
Wind direction	M8 CFA01 CG0651 D	65	SE
Cup anemometer	M8 CFA01 CS0571 B	57	NW
Cup anemometer	M8 CFA01 CS0471 B	47	NW
Cup anemometer	M8 CFA01 CS0472 D	47	SE
Cup anemometer	M8 CFA01 CS0371 B	37	NW
Wind direction	M8 CFA01 CG0351 B	35	NW
Cup anemometer	M8 CFA01 CS0271 B	27	NW
Cup anemometer	M8 CFA01 CS0272 D	27	SE
Absolute temperature	M8 CFA01 CT0231 D	23	SE
Barometric pressure	M8 CFA01 CP0231 D	23	SE
Water temperature	M8 CFA01 CT0031 D	-3	Below sea level

Q: Is it possible to further reduce the required air gap between Mean Sea Level and blade tip as stipulated in the technical project descriptions?

A (13.01.2014): The technical project descriptions for both projects stipulate that the air gap between Mean Sea Level (MSL) and blade tip will be determined based on the actual project, but also that a minimum of approximately 23m above MSL is expected.

Following new dialogue with the Danish Maritime Authority (DMA), the DMA has accepted to reduce the measure for the required air gap to a minimum of 20m between blade tip and HAT (Highest Astronomical Tide)

The DMA is also announcing that it will apply Highest Astronomical Tide (HAT) and not Mean Sea Level (MSL) when determining the minimum air gap between the sea and the blade tip.

The technical project descriptions for both projects will be amended accordingly and new versions will be uploaded shortly.

Because there is no tide in the Baltic Sea, there is no difference between HAT and MSL in the case of Kriegers Flak. For Horns Rev 3 there is a difference of app. 0,7m relative to MSL. The difference between HAT and MSL for Horns Rev 3 is depicted in the Metocean report, cp. Table 7.9 (see last column):

Table 7.9 Tidal measures at position A, B, C and D: MSL relative to GRS80, LAT, MLWS, MHWS and HAT.

Position	MSL relative to GRS80 (m)	Lowest Astronomical Tide (LAT) relative to MSL (m)	Mean Low Water Spring relative to MSL (m)	Mean High Water Spring relative to MSL (m)	Highest Astronomical Tide (HAT) relative to MSL (m)
A	49.76	-0.56	-0.41	0.41	0.56
B	49.80	-0.62	-0.43	0.43	0.62
C	49.88	-0.69	-0.50	-0.50	0.69
D	49.78	-0.64	-0.47	-0.47	0.64

Regardless of the difference between MSL and HAT in the case of Horns Rev 3, the new measure is lower for both projects compared not only to the previous announcements, but also compared to the last three Danish offshore wind farms:

Projects	Air gap between Wing tip and MSL
Horns Rev II	21,5m
Rødsand II	22 m
Anholt	21,6 m

Q: Are there any considerations in regards to sea ice at Kriegers Flak?

A (12.12.2013): In order to provide as much information regarding ice-conditions at Kriegers Flak a supplementary appendix to the Metocean study is currently being composed and will be published at the homepage of Energinet.dk

Deadline for publication is the 13. December 2013.

Q: When will appendix 11 of the Metocean Report be available?

A (12.12.2013): Due to permission issues Appendix 11a – 11c is not allowed published before 2014-01-01, but will be made available primo 2014.

Q: Will the Metocean report Appendix 21-22 for Krieger Flak be available in English or should this be done by us?

A (12.12.2013): The studies are at the moment only available in Danish, but translation will be conducted and published on the Energinet.dk homepage with deadline the 20. December 2013.

Q: What is the actual geographical position of the in table 1 and figure 2 for Kriegers Flak?

A (12.12.2013): According to Energinet.dk the project coordinate system is WGS84 UTM32N

Q: Met masts there have been measuring before the construction of turbines will be very valuable.

A (12.12.2013): According to the screening of available wind data at the Horns Rev only a PSO wind study initiated in 1999 has compiled measurements of wind data prior to construction of the turbines. These data will be published at the homepage of Energinet.dk with deadline primo 2014.

Grid connection

Question (23.08.2016)

Q: Can the DEA clarify who decides whether grid connection requirements have been fulfilled prior to grid connection of the KF Offshore Wind Farm?

A (24.10.2016): The authority to approve the compliance tests and the test results is the relevant system operator. In the Kriegers Flak case the relevant system operator is Energinet.dk.

Question (23.08.2016)

Q: We understand that in the event that Energinet.dk does not comply with deadlines and conditions for grid connection before and during the construction phase it is obliged to compensate the Concessionaire for certain losses. Can the DEA please confirm whether this would include compensation to the Concessionaire for lost revenues e.g. due to lost production?

A (24.10.2016): Yes, DEA can confirm, that this would include compensation to the Concessionaire for lost revenues e.g. due to lost production. The conditions on compensation for non-compliance with obligations regarding grid connection (before and during the construction phase of the offshore wind farm) are described in section 9 of the Concession Agreement. In regards to lost revenues, please note section 9(6) in the Concession Agreement.

Questions (12.10.2016)

Q: With reference to the Q&A section Grid Connection - Question (07.09.2016) “Should external network contingencies (eg. N-1 operation) be investigated during the harmonic study?” and the within corresponding answer Energinet stated that [...]Two harmonic equivalent sources are placed at the boundary of the provided model such that the effects of the Danish 400 kV on-shore- and the German 150 kV off -shore grids are included as a part of the equivalent source (included as impedance loci at the location of the eq. source).

A (19.10.2016): Model and documentation on the two harmonic equivalent sources (impedance loci) will be delivered around new year 2016/2017 to the winner of the bid.

Q: With reference to slides 29 – 32 within this presentation:<https://ens.dk/sites/ens.dk/files/Vindenergi/presentation.pdf> we have the following observations and questions:

- i. The internal J Tube diameter is given as 350mm. The “Collaboration Agreement during the Construction Phase (Annex 6.1.1) Section 4.3”, states that the maximum cable diameter is 142mm. We understand that CIGRE recommend that the minimum internal diameter of a J Tube should be 2.5 times the maximum cable diameter, giving 355mm. Thus, it would seem that this is not in compliance with the guidelines.
It is suggested to increase this maximum cable diameter to 150mm. This will enable cross sections up until 630 mm²?
- ii. The J Tube extension from the concrete wall to the bellmouth is given as 500mm. Should a CPS system fail and have to be replaced, many of the locking systems deem it impossible to remove the CPS from the bellmouth. Thus, the J Tube has to be cut away. An extension is then clamped to the remaining J Tube allowing new CPS to be fitted. This process requires a minimum extension of 1m.
Please confirm that this extended length is acceptable?
- iii. The distance from the bellmouth to the seabed is given as 500mm. Normal industry standard has a distance of approximately 2.5m. This ensures that the bellmouth is not buried, clogged by scour protection and allows the CPS to engage fully without problems. In addition, the bellmouth angle is normally around 45°.
It is therefore suggested to change the design accordingly to comply with general industry standards?
- iv. The distance between the hang offs is given as 1000mm but 1500mm at the Bellmouths. Angled J Tubes may cause problems during cable pulls as we will be generating bi-axial over a short distance. This may lead to cable failure.
Please confirm how this difference in separation distances will be implemented without compromising cable tolerances?
- v. A distance of 1500mm between Bellmouths is low.
Please confirm that generally available trenching ROVs (15m width) will be able to undertake burial works without damaging other installed, non-buried cables?
- vi. Please confirm that hang offs are located in the Cellar Deck, allowing sufficient height for compliant cable pulls?

A (19.10.2016):

- i. The J-tube dimensions are fixed. Compliance with guidelines such as CIGRE and DNV-GL standard are considered to be a design decision from the WFO.
- ii. Extension of the J-tube from concrete wall is subject to approval by the Substructure contractor, the extension cannot be confirmed at present.
- iii. The distance of 500mm is not to the seabed but to either to the seabed or top of scour protection. The one which has the highest elevation. The design of J-tubes in regard to angle is considered to be fixed due to the geometry of the Gravity Based Substructures.
- iv. Requirements to the J-tube design have previously been answered. Please see provided answers to questions **Q (27.06.2016): 33kV subsea cable** further down. Regarding distance at Bellmouths, please see answer 5 item E. Additional info: 33kV J-tubes are allowed to have one additional bend besides the main bend from vertical to horizontal (approx. 75 degrees). The bend may not exceed 25 degrees. Additional bends shall be avoided if possible.
- v. This cannot be confirmed. Please be advised that scour protection will be installed immediately after installation of the Substructures. Planned Substructure installation is in 4. Quarter of 2017.
- vi. The hang-off is located on the cellar deck; however the detail design of the hang-off is not fixed.

Question (04.10.2016)

Q: Is it assumed that there will be a significant risk that the WFO will be met by requirement to install a "Statcom" to be able to comply with the Grid Requirement for Kriegers Flak ? Under the precondition that current Wind Turbine technology and cable design are applied.

A (19.10.2016): Commercial available wind power plant components are capable of complying with the requirements stated for grid connection. As wind power plants consists of much more than just wind turbines – cables, transformers, circuit switching elements etc. it's up to the system designer of the wind power plant to take the requirements into consideration and create the system that comply with the given requirements. If this includes a STATCOM or not is up to the system designer to decide. On the contrary if the final design of the grid connection and offshore cable system are incapable of using the full required range of reactive capability the final requirements will be settled through technical negotiation during the implementation process.

Question (20.09.2016)

Q: The grid code as defined in TF 3.2.5 request for full reactive capability in the Wind Farm connection points even under extreme voltage situation e.g. -10% and +6 %.

We realize and it is our experiences that some WTG's have problems with complying with this rule to full extend. We understand that Energinet.dk previously has issued a dispensation for this rule.

We kindly ask for an indication on to what extent it can be foreseen that the Wind Farm owner for Krieger's Flak will get a dispensation in case the wind park can be operated with a more limited variation of P, Q in less extreme voltage load scenarios.

A (26.09.2016): The defined voltage range of +10 / -6 % is not characterized as extreme voltages. The variation range for the nominal voltage level is fully within the international specifications for voltage levels according to IEC 60038 .

Concerning the specific requirement on reactive power control, it shall be pinpointed that the reactive power control requirements against operational voltage variations are specified in TF 3.2.5, figure 21.

Concerning the request for a general dispensation / derogation from the specified requirements – the answer is clearly NO.

Any derogation handling will be based on the criteria listed in TF 3.2.5, section 2.9.

Question (16.09.2016)

Q: Is there somewhere in your homepage or somewhere a public room where we can find some drawings regarding Kriegers Flak substations?

A (26.09.2016): Previously Preliminary layout arrangements of both platforms have been released along with concept design layouts of the foundation bases (named Appendix 01-15) You can find the three combined sets of layout drawings (KFA, KFB and KFE) below.

[Link til KFA](#)

[Link til KFB](#)

[Link til KFE](#)

Question (15.09.2016)

Q: Energinet.dk has provided a “Preliminary WFO equipment lists” for possible equipment to be installed on the OSS KFA and KFB during a workshop. Since these lists are defined as preliminary Energinet.de is asked to provide a more specific list showing the minimum required equipment to be installed by the WFO on either OSS.

A (26.09.2016): Presently the WFO equipment lists still only exists as preliminary. It will not be possible to make a final list before a concessionaire has been awarded and the list is finalized in a corporation between concessionaire and ENDK

Q (16.02.2016): Contingencies measures in case an outage

Q1: In case an outage occurred of a main component on the OSS (e.g. transformer 220kV/33kV) the turbines are not powered anymore and an emergency power supplier would be required to avoid damage on the turbines. In this case, does the TSO have possibilities to provide power into the 33kV network especially on KFA because there is only one 220kV/33kV transformer installed? On KFB we understand that an interconnection is possible between both switch gears (GIS 1 and GIS 2) to avoid such adverse operational conditions.

A (26.09.2016): ENDK will not supply or provide power into the 33 kV grid

Q2: With regards to query 1, does the TSO plan to install a 33kV interlink connector between KFA and KFB to avoid such adverse conditions or has the windfarm owner the possibility to install an extra 33kV interlink connector using the spare J-tubes?

A (26.09.2016): Between KFA and KFB there will be installed a 220kV interconnector cable

Q3: Considering that the design of the OSS is not finalized yet. Does the windfarm owner have the possibility to place e.g. two 20 ft. containers permanent onto the OSS and is there an weight restrictions given?

A (26.09.2016): There is not sufficient spare space on the OSS for two 20 ft. containers. This will not be possible

Question (15.08.2016) Transformers

Q: Could you please advise the zero sequence impedance of the 33 kV windings of the earthing/auxiliary transformers. Ohm per phase?

We need this to understand the need for a neutral earthing resistor. If unknown at this stage, could you please confirm the possibility of the provision of such transformers with a nominal 33 kV earthing winding zero sequence impedance of not less than 1% base 400 kVA i.e. 27.2 Ohm/phase and a star point short circuit withstand level of 2.5 kA rms for 10 seconds.

A (26/09/2016): The exact auxiliary transformers to be used have not yet been selected. However in the design specifications from Energinet.dk for the auxiliary transformers the zero sequence impedance is specified to 28Ω (1Ω) on the primary side (33 kV side) of the transformer.

Questions (05.09.2016)

Q1: While it is not within Energinet.dk's ability to influence the closing or continued operation of units in Sweden or of Danish operators, it is within their ability to provide the results from a worst case scenario regarding short circuit currents.

Seeing as the short circuit level is already very high, even a small increase can have a large influence on the design of the wind power plant.

Would Energinet.dk please make a revision where their assumptions lowering the short circuit level are removed?

A (26/09/2016): Energinet.dk has provided the calculated maximum short-circuit contribution which is based on the best available outlook of the transmission system development by 2020. Energinet.dk does not manipulate preconditions of the short-circuit calculations which would increase or decrease the calculated maximum short-circuit contribution of the transmission system.

Q2: Regarding a possible connection to Sweden from the KFBE offshore substation. While Energinet.dk state that there are no guidelines on how to integrate the impact of such a connection, some kind of estimate is needed.

Can Svenska Kraftnät provide Energinet.dk with possible grid connection points and the short circuit contributions such points would have?

A (26/09/2016): The connection to Sweden or the theoretical connection of the connection to Sweden is not part of the present Kriegers Flak project. No additional info will be given in this respect.

Q3: In Energinet.dk's own short circuit calculations a voltage factor c of 1.05 has been used. Why is this the case when IEC 60909-0:2016 state that the voltage factor c should be 1.1 in systems with a nominal voltage above 1kV?

A (26/09/2016): Energinet.dk has provided a model which is suitable for short-circuit calculations. With the model delivery through the DEA, the tenderers have been brought into position to conduct all wished short-circuit calculations for the platforms.

Q4: Regarding the possible third synchronous condenser in Zealand, what short circuit power has Energinet.dk estimated that it will contribute with to the grid at the BJS 220kV busbars?

What contribution is it estimated that the two already installed in Bjæverskov and Herslev will have?

A (26/09/2016): The third synchronous compensator is used as a sensitivity of how much the short-circuit contribution on the platforms will be affected by integration of that extra synchronous compensator. The calculation shows that the maximum short-circuit current on the 33kV level will increase by 0.1 kA. The calculation is made at the maximum short-circuit level preconditions of the transmission grid. The result shows that the 33kV level short-circuit level is less sensitive to integration of additional synchronous generator type devices where the short-circuit level is already high. Energinet.dk has proposed to utilize a suitable margin by 0.5 kA (for instance) if the tenderer wishes securing his solution for future grid expansion in Denmark.

Questions (07.09.2016)

Q: Should external network contingencies (eg. N-1 operation) be investigated during the harmonic study?

A (26/09/2016): Only n-1 conditions internally in the Kriegers Flak 220 kV system must be included in the contractor study. Two harmonic equivalent sources are placed at the boundary of the provided model such that the effects of the Danish 400 kV on-shore- and the German 150 kV off -shore grids are included as a part of the equivalent source (included as impedance loci at the location of the eq. source).

Q: Could energienet.dk supply extended onshore grid information with the contingencies in question?

A (26/09/2016): This information is included in the provided equivalent sources.

Q: Could energienet.dk provide harmonic voltage angles of the background distortion at KFA033 and KFB033?

A (26/09/2016): No, the angles of the background harmonics at KFA033 and KFB033 cannot be determined with high enough accuracy hence Energinet.dk requests that all harmonics are treated as positive sequence and that a suitable summation method is utilized to add the active contributions to the background harmonics. The tender must justify the validity of the summation method proposed.

Q: In the tender material it is written that the PCC – Point of Common Coupling is on the 220kV side of the transformer as voltage reference point. In the same chapter, the current and voltage are measured on the 33 kV side of the transformer for metering. Shall the WPC – Wind park Controller operate with the measurements on

the 220 kV side of the transformer, or with the measurements on the 33 kV side of the transformer? In another chapter the connection point is defined as the 220/33 kV transformer, but not on which side?

A (26/09/2016): The PCC refers to the point and voltage level at which the wind farm as a whole is coupled to the overall grid (see tender material appendix 6, page 74 section 1.6).

For the WPC the connection point is on the 33 kV sides of the main transformers. All metering and settlement must be on the basis of the 33 kV sides of the transformers. The WPC will NOT operate with any metering on the 220 kV sides of the transformers (See appendix 6.1 section 2.2 page 103).

Q: How will the 120 MVar reactor on KRFA be operated? Will it be in operation all the time, for compensating the 220 kV cables?

A (26/09/2016): The 120Mvar reactor shall be in operation all the time in normal operation of the KF 220kV system. This excludes periods of maintenance/failure or when the control center manually may switch off the reactor. The reactor will monitor the KFA 220kV voltage and automatically switch off in low-voltage regimes and automatically switch on in high/normal voltage regimes. Energinet.dk is working on the control system and will implement a voltage band so that the reactor does not switch on/off unnecessarily.

Questions (08.09.2016)

Q: Please provide datasheets of the 220/33 kV power transformers in offshore substations (KFA and KFB) including the steps on the OLTC. We also want to know who the AVR will operate (hopefully to get the voltage on the MV side of the transformer on 33kV all the time). We would like to have the regulation band on the 33 kV side.

A (26.09.2016): [Pdf document holding the needed information](#)

Q: Does Energinet.DK allow to use EPR insulated cables between the hang off position and the MV GIS on the OSS?

A (26.09.2016): ENDK allows EPR insulated cables between the hang off and the MV GIS

Q (01.07.2016): With respect to 33 kV transformer switchgear panels in OSS for Kriegers Flak, please let us know of Energinet.dk have a possibility to operate the 33kV transformer circuit breaker? If yes please let us know it is via own open coils or via communication to SCADA? Please let us know if the transformer protection need special equipment in the 33 kV GIS? Please let us know how interlocking is expected to be handled?

A (08.08.2016): Energinet will not operate any 33 kV. But Energinet needs to trip the 33 kV transformer bays in case of faults. Normal 2 coils in 33 kV shared with wind park owner is needed. This will be hardwired via a dry contact from Energinet relays.

Signals for 220/33 kV transformer bay interlocking is foreseen. Signals will be hardwired both ways. Energinet needs status indication for all 33 kV and 33 kV WT equipment. Energinet use IEC 104 protocol to the park controller for this. It must be foreseen that the park controller will be single point of scada contact between Energinet and park owner.

Q (01.07.2016): Are the Automatic Voltage Regulators (AVR) a part of Energinet.dk supply in OSS switchgear for Krieger Flak? Please let us know the type of AVRs? Please let us know who will operate and program the AVRs?

A (08.08.2016): Energinet will deliver and program the AVR. This could be a Tapcon or Eberle AVR device.

Q (01.07.2016): Please provide the backup relay fault clearing time at the 33 kV busbar of offshore substations KFA and KFB (KFB-A and KFB-B).

A (08.08.2016): 33 kV busbar will be protected by a overcurrent relay at the 220 kV transformer bay. Typical settings:

$I > t = 0,8 \text{ s}$

$I >> t = 0,3 \text{ s}$

Times must be agreed during the project phase.

Q (27.06.2016): Switchgear

Can Energinet.dk take over the design, supply and installation of the switchgear, relays and controller, because this is an extreme tight pressure for the developer? In addition detailed information, about the Switchgear design requirements is missing.

A (08.07.2016): Energinet.dk can only purchase the switchgear if Energinet.dk is instructed to do so by the Minister for Energy, Utilities and Climate.

In accordance with section 4(6) in the consolidated Act no 1097 of 8 November 2011 on Energinet.dk, the Minister for Energy, Utilities and Climate can only instruct Energinet.dk to purchase the switchgear if this is assessed to be necessary in consideration to the tendering procedure. It is the DEAs assessment that this criterion is not fulfilled. Thus, the Minister cannot instruct Energinet.dk to purchase the switchgear. The Concessionaire is therefore obligated to purchase and install the switchgear.

For more information about the switchgear allocated room, please refer to the already published documents.

Q (27.06.2016): Schedule

Can Energinet.dk provide the OSS schedule to include design and engineering, planned interface meetings, construction, installation and commissioning. More specific, what is the time window for the concessionaire to install and commission the equipment, which needs to be delivered to the OSS construction site, after the 1st of December 2017? When will the load out of OSS A&B take place?

A (08.07.2016): Earliest start at the yard at Hollandia, Rotterdam Holland is 13-09-2017.

Load out approx. 20-03-2018.

Q (27.06.2016): OSS design

It has been stated by DEA that OSS design is completed. Could this design be shared with the tenderers for relevant interface areas?

A (08.07.2016): Yes, please specify which interface areas are of interest and Energinet will compile a package. However Energinet reserves the right to invoice the cost price of compiling and delivering such a package.

Q (27.06.2016): Electrical equipment specifications and data sheets

Can Energinet.dk provide the data sheets for the equipment chosen for review.

A (08.07.2016): Please specify which data sheets is needed. Energinet is in the process of acquiring this information. When equipment has been selected and the concession has been awarded, Energinet will be happy to share relevant information.

Q (27.06.2016): 33kV subsea cable

When will Energinet.dk set up an interface working group for discussion with respect to cable pull-ins including OSS scour protection, J tube/bellmouth/CPS design, dimensions , height off seabed, orientation, cable deck layout, strong points, head room, cable routing and accessibility for terminating cables.

Specific concerns and questions:

- A. The Internal diameter of J-tube, is not following DNV recommendations, will this be changed to suit?**
- B. The height of bell mouth above mean seabed level (at present low, what will be the height above MSL or scour protection level be?**
- C. The horizontal angle of j-tube exiting foundation seems low, what will the angle be?**
- D. Orientation with respect to submarine cable installation and layout, to ensure that cable routes do not cross at anytime. How will Energinet.dk ensure this is taken into consideration?**

Spacing between j-tube center lines should be minimum of 3-m. What design/engineering (thermal spacing/cable routing) has been undertaken that there will be adequate spacing between each cable in the j-tubes and within the OSS foundation?

A (08.07.2016): No working group will be established, but there will naturally be a close liaison once the concession has been awarded. Strong points for HV can be utilized for 33kV. Specific strong points for 33kV have not been defined yet, but are not regarded as a major issue.

A. The Inner diameter of the J-tubes to facilitate access for 33kV array cables are minimum 350 mm, the expected outer diameter of the 33kV array cables are 120 mm. The J-tube design is considered by Energinet.dk to be in accordance with DNV-RP-J301, February 2014, section 4.7.4, guidance note, "As a general rule, the inner diameter of the J-tube di,tube should not be less than 2.5 ´ cable outer diameter do,cable to facilitate cable cooling and avoid excessive pull-in forces."

- B. The expected level of the lowest part of the J-tube is expected to be 500 mm above scour protection or mudline whichever is at the heights level, however this is pending the final design of the substructures and the final scour protection design.
- C. The horizontal angle for the J-tube exiting the foundation in relation to the seabed is 15°.
- D. The global orientation of J-tubes is fixed, hence it is considered to be the responsibility of the WFO to appropriate routing of array cables.
- E. The expected design facilitates a distance of 2 meter between bell-mouths and inside the substructure a distance of 1 meter between J-tubes and cable hang-off, which by Energinet.dk is in accordance with DNV-RP-J301, February 2014, section 4.7.3.4, figure 4-12.

Q (27.06.2016): Electrical model

When will Energinet.dk provide the electrical model of the OSS in order to allow the developer to perform their electrical studies for the inner array grid and WTG?

A (08.07.2016): Energinet.dk is currently working on a model of the 220 kV grid from Bjæverskov to KFA and KFB including short circuit contribution from the 220/150 kV transformer available to the bidders. The model will include information on the 220 kV cables from BJS to KFA/KFB, the cable between KFA and KFB, transformers/reactors at KFA, KFB and KFE and short circuit equivalents for the 220 kV grid behind the BJS busbar and 150 kV KFE busbar. Due to vacation this cannot be expected finished until late august.

Q (27.06.2016): Installation of Wind Measurement Equipment

Can the WFO install wind measurement equipment on the OSS as input for the compensation payments, e.g. a LIDAR

A (08.07.2016): Depending on size and location when installing small measurement equipment such as LIDAR, we expect yes.

However there it will not be possible to install metrological masts on the platforms.

The draft of the final version of the tender document contains some requirement regarding the installation of measuring equipment.

Q (27.06.2016): Installation and Operational interface management

Could Energinet.DK should setup an installation interface management document similar to the one used in the Dutch tenders by Tennet. The link below is guiding through the document which was used on Borselle.

http://www.tennet.eu/nl/fileadmin/afbeeldingen/grid-projects/Net_iop_zee/Ronde_8/ONL_TTB-03024_T13_Installation_interface_management_PP_v2.pdf

A (08.07.2016): Energinet.DK will normally draft a "Cooperation Agreement" - this document contains agreements for the use of the facilities on the offshore substations as well as relevant legal agreements.

The document is subject for mutual agreement.

The main topics can be:

- Technical conditions
- Design and fabrication
- HSE planning
- Commissioning and energizing
- Operation and maintenance
- Responsibilities and insurance

Offshore og Onshore sites.

Q (27.06.2016): Energinet.dk contractors

Please list potential OSS supply and installation contractors.

A (08.07.2016): OSS topside fabricator for platforms will be Hollandia, Rotterdam in Holland. Installation contractor to be appointed approx. 10-07-2016.

Q (22.06.2016)

Please confirm room dimensions for the MV GIS rooms on KFA and KFB.

Of the document no. 272h4 50 100 for both KFA and KFB the dimension of the MV GIS room is defined to: 7100 x 1900 x 2700mm (Width, Depth, Height)

With a clearances:

0.5/0.1 m free space ends

0.1 m free space behind

1.7 m free space infront

0.6 m free space above

However, the room is defined to 9.5m x 4.0m x 3.5m (inside length x width x height).

What are the usable height during installation and after installation to all equipment also considering safety distances etc.?

With the above there is an ambiguity: 3.5m height – or from dimension of GIS room with clearances: 2700 mm + 0.6 m free space above = 3.3 m height.

A (08.07.2016):

The following room dimensions applies:

KFA 10,000x4,900x4,000 (LxWxH)

KFB 10,000x4,655x4,000 (LxWxH) MV switchgear room A

KFB 10,000x4,940x4,000 (LxWxH) MV switchgear room B.

Q (30.06.2016)

Can we have copies of Energinet's site investigation reports, in particular the area around the offshore substations but also the export cable route.

A (08.07.2016): Data can be found on the homepage of Energinet via the link:

<http://energinet.dk/EN/ANLAEG-OG-PROJEKTER/Anlaegsprojekter-el/Kriegers-Flak-havmoellepark/Sider/data.aspx>

Q (30.06.2016)

There will be a requirement to cross the export cables and we therefor would require subsea cable crossing and proximity agreements to be in place. Can the DEA support this and provide template/standard crossing agreement that would be required.

A (08.07.2016): Energinet can provide more details regarding subsea cable crossing and cable proximity at a later stage. Energinet expect to be able to give this information ultimo August.

Q (01.07.2016) Short circuit ect.

Q2 Please let us know the safety margin stated in [Energinet.dk](http://energinet.dk) document "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms (Revised)" dt: 06 August 2015.

A (08.07.2016): No exact safety margin is given. We will include more information on this in the revision of the document. This can be expected late august.

Q3 Please confirm that is no parallel operation of transformers in KFB offshore substation.

A (08.07.2016): If no measures are taken to lower the short circuit level at the 33 kV busbar then the 33 kV busbar should divided when both 220/33 kV transformers are in operation.

Q4 Please provide us the necessary relevant information below for calculating short circuit calculations and DigSILENT simulation calculation case if available.

- a. cable connecting KFA and KFB substation ,
- b. power system elements connecting KFA and KFBE
- c. Cable information connecting KFBE and Baltic -2 ,Baltic -2 and Baltic-1 and Baltic -1 and Bentwisch substation.
- d. Cable information connecting KFA and BJS220
- e. Fault levels at Bentwisch substation, BJ220 substation, Baltic-1 substation (with wind farm connected) and Baltic-2 substation (with wind farm connected) and KFBE substations.

A (08.07.2016): Information for a simplified model of Kriegers Flak will be provided with the revised version of "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms". The requested information will be included in this.

Q5 Since the short circuit level mentioned in the [Energinet.dk](#) document "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms (Revised)" dt: 06 August 2015 is higher than 25 kA, please let us know: is the short circuit level mentioned in [Energinet.dk](#) document a problem at the 33 kV busbar of the KFB substation or the components used in the wind farm.

A (08.07.2016): The short circuit level is only above 25 kA when all production capacity from KFB is connected to the same busbar (i.e. if a transformer is out of operation and the 33 kV busbars are connected).

Normally switchgears at 33 kV are only designed for 25 kA. Thus the "problem" is both related to the 33 busbar and components in the wind farm.

Q (04.07.2016)

We would like the short circuit power at the 33kV bus bars of KFA and KFB under worst case assumptions.

This means that for the assumptions made for the Grid Development Plan 2020, the assumptions lowering the short circuit contribution should be removed, and the ones raising it should be kept.

A statement on whether these simulations were made at nominal voltage, or at a worst case scenario.

[Energinet.dk](#) showed the Ik" value in their presentation. Is it possible to get the other results as well? Such as Ik, ip and idc.

Ideally we would like the model which [Energinet.dk](#) has used for the simulations.

If that is not possible then the contractor specifications for the equipment between BJS220 Bjæverskov and the HVDC station in Bentwisch, would be nice. With the calculated short circuit power at these two connection points.

Can [Energinet.dk](#) specify the X/R ratio for the 30/220kV transformers at KFA and KFB if they cannot give all the contractor specifications?

A (08.07.2016): We will consider including this in the revised version of "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms".

Calculations are made according to IEC 60909.

The information will be included in the revised version of "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms".

Information for a simplified model of Kriegers Flak will be provided with the revised version of "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms". The requested information will be included in this.

The model will cover BJS220 to KFE150.

Data for the 220/33 kV transformers will be included in the the revised version of "Kriegers Flak AC and CGS: Maximum Short-Circuit Contribution on KFA and KFB Platforms".

Q (30.05.2016)

We would like to ask DEA to provide a shape file with the exact boundaries of the excavation zone inside the Kriegers Flak area?

A (08.07.2016): Please find the shape file [here](#)

Q (02.05.2016): J-Tube Orientation at Transformer Platform

A defined number of J-tubes will be provided on KFA and KFB transformer platforms for 33kV cable pull-in.

- a. At what point of time DEA will define the clock-wise orientation of the J-tubes - also for the export cables to avoid interference with inner array grid cable routes?**
- b. Is it possible to suggest J-tube orientation to optimize on trenching, inner array cable length, pull-in as well as optimized location in regards to main wind wave-direction?**

A (27.06.2016)

- a. The design in regards to orientation of J-tubes for turbine arrays is fixed, and was presented on the seminar 2th February 2016 hosted by Energinet.dk. Please find the presentation and all other related material on the website of the Danish Energy Agency.
- b. As the orientation of J-tubes are fixed, it will not be possible to optimize the orientation in regards to trenching, environmental loads etc.

Q (08.06.2016): OSS - MV GIS room

The entrance to the MV GIS room appears to be only 1400 x 2600 mm. Can this be confirmed?

Will it be possible to extend the opening during GIS installation?

The information is needed for tendering the switchgear and for planning of installation.

A (08.06.2016): A similar question has previously been asked (20/05/2016), answered and published on the Q&A page (26/05/2016). Please refer to the Q&A question regarding the OSS access doors in the "Grid connection" section to find the answer to the question.

Q (27.05.2016)

We are experiencing that some turbine producers have a nameplate capacity, which is not in line with the possible power mode/booster capacity of these turbines.

Is it the certified capacity, the nameplate capacity or the actual capacity in operation that counts for the allowed capacity range of the wind farm 590-610 MW at Kriegers Flak?

A (01.06.2016): The nameplate capacity is the capacity rating shown on the nameplate attached to the generator by the manufacturer. The certified capacity is usually the same as the nameplate capacity, but has been certified by any classification body (e.g. DNV-GL, TÜV Rheinland...)

Many of the modern wind turbines are certified to a rated capacity but can run at higher capacity in "power mode / boost mode" within the same certification. According to the international standard (IEC 61400) a wind turbine needs a new certification if the "boosted" capacity exceed the previously certified capacity with more than 5%.

According to the tender conditions, the allowed installed capacity for the Kriegers Flak wind farm, ranges from 590 to 610 MW. Though, no more than 600 MW (200 MW and 400 MW on the eastern and western substation respectively) must be supplied at the connection points at any time. The connection points are defined as the 220/33 kV transformers on the platforms.

The DEA calculates the installed capacity based on the actual capacity in operation. The DEA does not include any electricity loss in the calculated installed capacity. In relation to the delivered production, array losses between the turbines and the connection point will be part of the calculation.

For example, if the concessionaire decides to install a 8 MW wind turbine, the following scenarios will be relevant for the Kriegers Flak wind farm:

Possible scenarios for a 8 MW wind turbine					
Wind turbine capacity [MW]	Number of installed wind turbines	Total installed capacity [MW]	Assessed array losses* [MW]	Measured at the 33/220 kV connection point [MW]	Down regulation needed [Y/N]
8.3 (boosted)	72	597.6	7.0	590.6	N
8.3 (boosted)	73	605.9		598.6	N
8.0	74	592.0		585.0	N
8.0	75	600.0		593.0	N
8.0	76	608.0		601.0	Y

*The value of 7 MW is just an example and must otherwise be calculated for any specific project design

Q (02.05.2016): Anchor Plan for Transformer Platforms

Is or will be an Anchor Plan made available for the transformer platform installation? Planned anchor positions may interfere with inner array cable routes, which should be prevented.

A (27.05.2016): The anchor pattern for the installation of the topside is currently unknown, the anchor pattern is expected to be designed in Q4,2016/Q1-2017 depending on UXO findings. Please be advised that dredging works is foreseen for the preparation of the seabed for the gravity based substructures which are to support the transformer platforms. The extend of this work is presently unknown, but the work is expected to be carried out in Q2/Q3-2017. A plan for anchors related to the installation of the gravity based substructures is at this time undetermined and is not considered to be fixed before Q4-2017.

Q (20.05.2016): OSS access doors

According to the layout drawings published of the OSS main decks the height of the access doors to the switchgear rooms is stated to be 2600 mm. Would Energinet.dk consider to change the height of the doors to min. 31000 mm in order to increase the number of potential switchgear suppliers?

A (26.05.2016): The request for change of the OSS design cannot be accepted for the reason as follows:

- The OSS contract has already been assigned to a Contractor
- A design change will have high impact on schedule, as the design has been completed and certified
- Equipment suitable for the current design is available on the market

Any potential arising conflict at a later stage will be managed in corporation with the OSS Contractor.

Q (21.04.2016): Transformers and OSS

Have or could DEA/EnerginetDK consider to install additional transformers on the OSS as to allow greater redundancy and decrease the risks? This would be particularly relevant for OSS A. If the DEA/EnerginetDK are unwilling to consider this, could the concessionaire be allowed to install such a transformer?

A: The Danish Energy Agency and Energinet.dk hosted an information seminar for tenderers on Kriegers Flak Offshore Windfarm on 2nd February 2016 concerning grid connection, platforms and technical issues. In the material presented there is information regarding platform design and the time schedule. The detailed design was locked by this date, and the design of KFA does not provide space for an extra transformer. Therefore it will not be possible to install an extra transformer on the KFA platform. Energinet.dk will receive Best and Final offers for the construction of the platform topsides by April 25. 2016. All relevant information of topics from the seminar can be found at the web-site of the Danish Energy Agency.

Q (10.03.2016): As stated in the Tender Conditions, page 101: “Energinet.dk’s platform design will not allocate additional space for the concessionaire.” In the information seminar of DEA/Energinet.dk held on 02.02.2016, the possibility of space extensions were discussed. Can DEA give a binding statement on available concessionaire space on OSS, especially regarding extensions?

A (16.03.2016): It is not possible to allocate additional space on OSS for concessionaire (OSS Offshore Sub-Station).

Q (18.02.2016): Energization of WTGs in case of DK grid failure

During potential failure on either the export cables to Denmark or the onshore substation can the interlink/export cables to Germany be utilised to keep the turbines energized?

A (15.03.2016): It is possible that the interconnector via Kriegers Flak to Germany will be in service and able to supply domestic consumption on Energinet.dk offshore platforms and the Kriegers Flak windfarm, but the availability will depend on the operational situation during the failure. Consumption will be metered and invoiced towards Energinet.dk if possible. The operator of the wind farm and Energinet.dk will have to develop operational procedures for the handling of these situations.

Q (18.02.2016): Follow-up on ENDK workshop 2nd February on grid connection, platforms and technical issues

With reference to the “KFA and KFB WFO equipment lists” on the DEA website please specify the items - if any - for which ENDK undertakes design and tender activities prior to concession award?

A (15.03.2016): It is not planned that ENDK shall undertake any design and tender activities prior to concession award.

Q (18.02.2016): Follow-up on ENDK workshop 2nd February on grid connection, platforms and technical issues

With reference to item 31 in the “Q&A's during meeting” document on the DEA website and discussions related to the design of the OSS, ENDK is kindly requested to make available the following design drawings showing:

- **all locations where WPO equipment, cables and interface points will be located.**
- **access ways to all locations**
- **array cable entry level and complete route to switchgear.**

A (15.03.2016): The following preliminary drawings of the OSS's are relevant for WPO:

KFA layout drawings:

[Cellar Deck](#)

[Cable Deck](#)

[Main Deck](#)

KFB layout drawings:

[Cellar Deck](#)

[Cable Deck](#)

[Main Deck](#)

Please note that the above mentioned drawings pending detailed design.

Q (18.02.2016): 33kV termination details

With reference to draft tender conditions Appendix 6.1, 3.1 please inform when 33 kV transformer termination details will be published?

A (15.03.2016): Termination point mounted on the 33kV side of the main transformers will be: pfisterer MV-CONNEX Quadruple-Contact Elbow Bushings, size 3, 3150A, with long cone.

Q (18.02.2016): Weight restrictions for OSS equipment

With reference to Appendix 6.1, 4 please inform if there are any weight restrictions for the equipment supplied to the OSS by the WPO?

A (15.03.2016): The platform crane capacity is 3.5 tons.

Q (18.02.2016): NER space restrictions

With reference to Appendix 6.1, 4 please inform if there are any space limitation for the neutral earthing resistors?

A (15.03.2016): In the platform designs the Neutral Earthing Resistor (NER) is to be mounted on the wall above the auxiliary transformer, which is placed in the 220/33kV main transformer room. The size of NER has been anticipated to be 1700x1500x1600mm [HxWxD] and weight to be 1000kg.

The detailed design of the support for the NER is pending detailed information on the NER.

Q (18.02.2016): OSS Access door size

With reference to Appendix 6.1, 4 please provide the minimum size of the access doors to the rooms where the WPO needs to install equipment?

A (15.03.2016): With reference to question/answer no. 3, please see drawings for door sizes.

Q (18.02.2016): Installation deadline/OSS sail-out date

With reference to Appendix 6.1, 4 please clarify the deadline for installation/commissioning of the WPO equipment on the OSS between delivery to yard 1/12-2017 and sail-out (March 2018).

A (15.03.2016): It is not possible to state an exact date; hence the contract for topside is not awarded. Energinet.dk plans for installation and test of all equipment in the period 01.10.2017 – 01.03.2018.

Q (18.02.2016): J-tubes diameter and bending radius

With reference to Appendix 6.1 it is, to enable flexibility in array grid design, proposed to change the design of J-tubes to accommodate a cable with a larger cross sections. It is suggested to design J-tubes to an inner diameter of 430mm and a minimum bending radius of 3300mm.

A (15.03.2016): The design requirements for j-tubes providing access for 33kV subsea cables are fixed and Kriegers Flak OSS substructure is under tendering; hence the proposed change will not be possible.

Q (18.02.2016): Timing of German connections

With reference to Appendix 6.1 please inform when the HV connections to Germany will come into operation?

A (15.03.2016): The interconnector via Kriegers Flak to Germany will be in service from January 1st 2019.

Q (18.02.2016): Requirements to relay protection

With reference to Appendix 6.1 please inform if there are any requirements to the relay protection philosophy and protection relays the WPO scope?

A (15.03.2016): ENDK and WPO need to make a selectivity study of the system in cooperation.

ENDK will provide overcurrent protection of the main transformer and the protection will also look into the 33kV side of the main transformer in a limited extent.

ENDK are able to provide a "Break Failure protection" for the WPO.

Q (18.02.2016): Supply of 33 kV cables between aux. transformers

With reference to Appendix 6.1, 5.10 please confirm that the 33 kV cables between the aux/earthing transformers and the main transformers are within ENDK's scope?

A (15.03.2016): ENDK confirms that the 33kV cables between 220/33kV Main transformer and the auxiliary/earthing transformers are within ENDK's scope. The cables between the auxiliary/earthing transformers and Neutral Earthing Resistors are in the WPO scope.

Q (18.02.2016): Number of cables

With reference to Appendix 6.1.1, 3.1 please clarify the number of cables per phase specified in this paragraph, as there seems to be an inconsistency between the Danish document and the English translation?

A (15.03.2016): On the 33kV side of the main transformers each phase will be equipped with eight (8) cable connections. Of these eight, there will be six (6) available for WPO to connect to the 33kV switchgear. Type of 33kV terminals on the main transformers please see answer to question 4 "33kV termination details".

Q (18.02.2016): DC supply of 220 VDC and 48 VDC

With reference to Appendix 6.1, 5.3 please clarify if there are any restrictions in types of equipment that may be supplied from the 48 V DC system and the 220 V DC system respectively?

Is any basic design available for the LV AC and DC systems?

A (15.03.2016): ENDK will only supply spare 220VDC outgoing feeder and there will not be any restriction in type of equipment that may be supplied, it has been anticipated that the supply is to a WPO sub-switchboard. There will not be any 48VDC feeder in ENDK's system for the WPO use. The supply of 48VDC to WPO equipment is in the scope of WPO.

Q (17.02.2016): As a follow-up on the workshop 2nd February on grid connection, platforms and technical issues.

Q1: The presentation from the workshop, published on the DEA website, states that switchgear etc. must be delivered to yard on 1st September 2017. The preliminary tender material states 1st December 2017. Please clarify as soon as possible which date equipment to be installed on the OSS must be delivered to yard at the latest?

A (10.03.2016): The applicable date of delivery to the yard is laid down in the tender documents. It means that, equipment for installation at the platform must be delivered by the concessionaire to the yard no later than 1 December 2017.

Q2: Also a latest date for the installation and testing of the equipment (prior to sail-out) at the yard would be very helpful?

A (10.03.2016): It is not possible to state an exact date; hence the contract for topside is not awarded. Energinet.dk plans installation and test of all equipment in the period 01/10/2017 – 01/03/2018.

Q3: The same presentation states that ENDK will handle tendering of the 33 kV switchgear. Please clarify the conditions for this process: will the concessionaire be required to take over a switchgear contract from ENDK or is this only an option?

- If optional, will costs for the switchgear tender need to be covered by the concessionaire even if the contract is not taken over?
- Will an indication of tendering costs be provided?
- Will ENDK share the tender material for the switchgear to allow the future concessionaire to ensure compatibility with their wind farm design?

A (10.03.2016): Energinet.dk only has the legal right to tender the 33 kV switchgear, if it is strictly necessary according to the time schedule. In the presentation by Energinet.dk from 2 February 2016, the tendering of the switchgear was mentioned as a possibility if the concessions owner is found late. With the deadline for best and final offer on 8 November 2016, it will be possible for the concession owner to tender the switchgear after the signing of the concession agreement. On that background, the Danish Energy Agency expects that the tender of the switchgear will be the responsibility of the concession owner and not Energinet.dk.

Q4: The status of the workshop documents published on the website is unclear (e.g. “Q&A on interfaces handed out” and “Q&A on interfaces Revised version 12.02.2016”). Could you please mark documents that are outdated or have been superseded by updated documents?

A (10.03.2016): The documents on the homepage will be marked as suggested.

Q (06.01.2016): Trading on the Kriegers Flak Interconnector

In the hearing on the trading regime on the Skagerak 4 interconnector, there has been suggested that only to allow the TSOs (Energinet.dk and Statkraft) to perform trading could be a violation on new European trading regimes. Which market rules will prevail for the Kriegers Flak interconnection, the one decided in 2014 or according to new European trading rules?

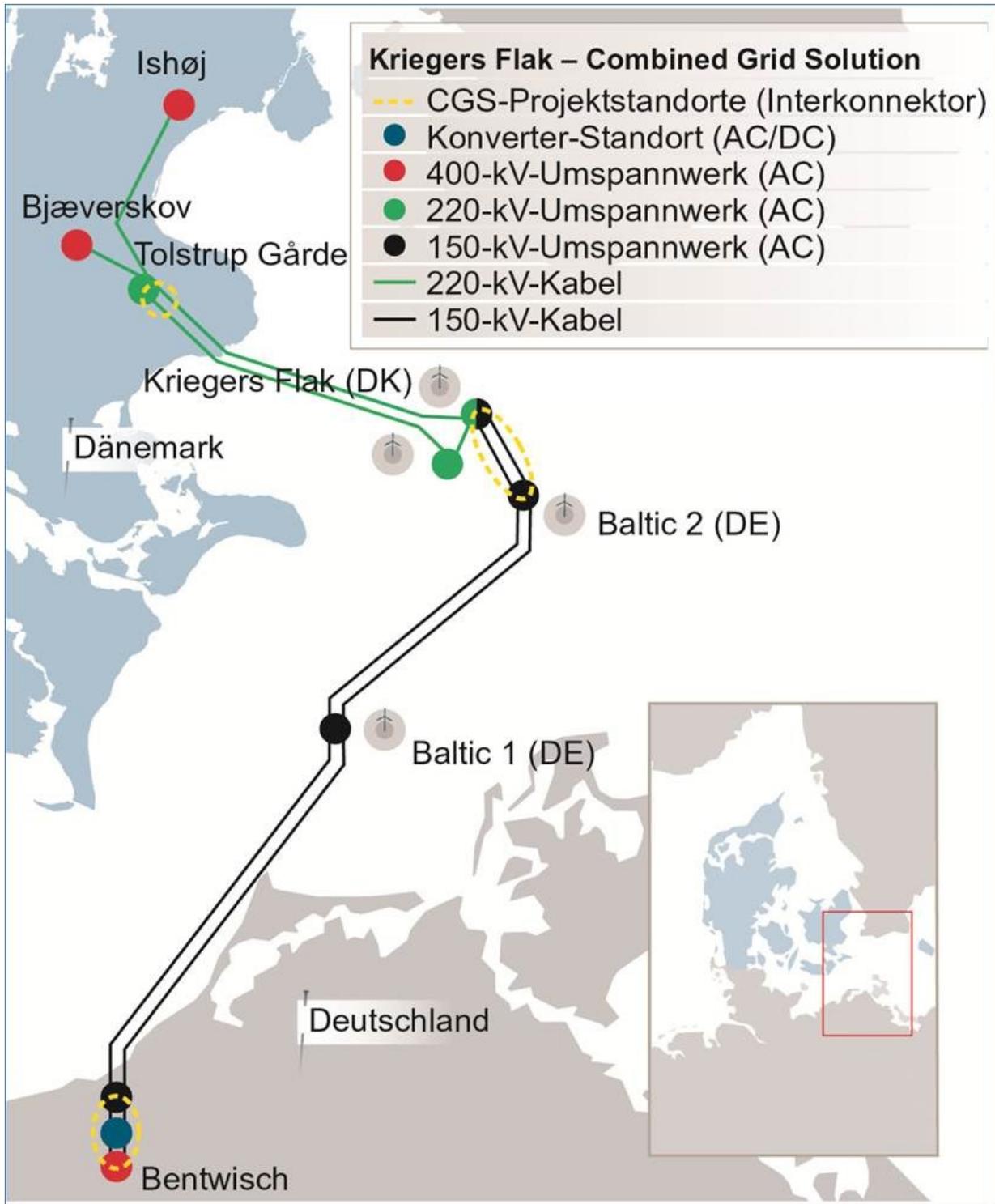
A: The capacity on the Kriegers Flak interconnector will be given to the day-ahead market together with the existing interconnector Kontek, and the total congestion management model fulfills the relevant European regulation coming from the network code FCA and other relevant regulation. The total capacity between the price area in Eastern Denmark (DK2) will therefore be the sum of the available capacity on Kontek and Kriegers Flak.

Q (06.01.2016): If there is a limitation of the trading only allowing the TSOs (Energinet.dk and 50Hertz) to trade on the interconnector, how long will this rule last a) during the support period b) until the new European trading rules are prevailing the market?

A: There is no limitation on the KF interconnector allowing only the TSOs to trade on the interconnector. All available cross-border capacity will be given to the day-ahead market taking into account the national obligation to give prioritized access to the off-shore wind parks to transport production to the on-shore national transmission grids. There is no TSO-TSO cross-border trade on the interconnector.

Q (18.12.15):

According to the technical description for Kriegers Flak, two 220 kV export submarine cables will be installed from the offshore substation platforms to the landfall at Rødvig, in addition to the two export cables to shore, a 220 kV submarine cable will be installed between the platforms. Is the attached image giving a correct picture how the two platforms are connected.



A: The figure shows a correct simplified representation of the connections between substation platforms and Baltic II and stations on shore.

Q (11.12.2015):

We can see from the EIA conclusions, that it is recommended to allow trawl fisheries across the Kriegers Flak cable route, despite of the current law forbidding this.

Is there evidence that the recent disruptions of the cable to either Anholt or to Horns rev2 are not caused by any fisheries. If so please do confirm.

A: The disruptions of the Anholt cable is caused by manufacturing problems, not by any external impact. The Horns Reef 2 cable fault has been localized, and there was no sign of external impact. The faulted cable section has been sent to a laboratory for further examinations. The conclusion is, that the fault is not caused by fishery activities.

Q (11.12.2015):

Could activities in the cable zone, like trawling, increase the risk of cable disruptions?

A: Energinet.dk has agreements with Danish fishery organizations. Fishery using trawl is allowed over Energinet.dk's export cables from offshore wind farms. Each site has been evaluated for the risk before entering the agreements. Energinet.dk consider the risk acceptable. The situation is different for the existing array cables in existing offshore wind farms in Denmark. Inside the wind farms fishery using trawl is not allowed.

General Q1-Q6 (02.11.2015):

Q1: Latest general arrangement drawings incl. J-tube details of the substation for KFL

A: Please see attached layout drawings 01-13. The attached are only preliminary and for information only. Design has not been finalized.

[Appendix 01](#)

[Appendix 02](#)

[Appendix 03](#)

[Appendix 04](#)

[Appendix 05](#)

[Appendix 06](#)

[Appendix 07](#)

[Appendix 08](#)

[Appendix 09](#)

[Appendix 10](#)

[Appendix 11](#)

[Appendix 12](#)

[Appendix 13](#)

Q2: General single line diagram of the substations of KFL

A: Please see attached layout drawings appendix 14 and 15.

[Appendix 14](#)

[Appendix 15](#)

Q3: Latest applicable grid code – involvement in the hearings for a new version of the technical regulation 3.2.5 revision 5, but never received a final version. Will revision 5 now be the one for KFL?

A: TF 3.2.5 rev.2 from June 12, 2015 will be the applicable code. It is available on Energinet.dk's website. Revision 5 was a work title of the document until it was published in June 2015.

Q4: Is it planned/possible to have a room for equipment on the substation of Energinet.dk? If so are there any cost estimates or fees we need to foresee? Apart from room or storage cost, do we need to plan for any other cost to be paid to Energinet.dk?

A: No equipment/storage room for the wind farm owner is part of the Energinet.dk substation design. If the Energinet.dk maintenance storage room proves to be excessive, the wind farm owner will be given the opportunity to lease the unused storage capacity.

Q5: Any special costs related to communications, use of fiber optical cable and/or plug-ins on substation?

A: A prize related to use of fiber optical cables has not be established yet.

Q6: Is there already a layout/general arrangement drawing for the substations KFA and KFB, which can be used for our tender material, to give installers a first impression of what the structures may look like.

A: Please see attached layout drawings 01-15. The attached are only preliminary and for information only. Design has not been finalized. (Find the layout drawing 01-15 under Question 1 and 2).

Markings Q7-Q11 (02.11.2015):

Q7: Can we integrate the Energinet DK EOS stations when planning for the layout for Marine markings?

A: If the stations or platforms form a "natural" part of the demarcation of the wind farm, they should be considered an integral part of the layout for the marine markings. Only if the platforms stand "alone" they should be marked separately.

Q8: Can we mount a racon on the platforms of Energinet.dk?

A: No. The position of the stations or platforms of Energinet.dk (situated in the center of the area) are not suitable for racons. You should expect to be required to have a racon mounted on the most northwestern turbine.

Q9: Can we consider the Baltic II windfarm when planning for the layout for Marine markings (incl the synchronisation of lights)?

A: No. You should not consider Baltic II when planning for the layout of the marine markings (in other words you should pretend that the German farm is not there) as the German and Danish markings do not fit with each other.

Q10: Will KFL be regarded as two separate marine objects (West & East part) or as just one with regard to layout for Marine markings?

A: As a starting point the whole of Kriegers Flak wind farm should be considered to be just one area (for the purposes of markings) as we do not wish that the reservation area between the two parts of the farm end up functioning as a “marked shipping route”. However, depending on the layout of the farm, including the position of the turbines in relation to the two platforms, we cannot exclude the possibility that there may be a need for considering the wind farm as two separate marine objects. The decision is based on a concrete assessment of the proposal for markings put forward by the concessionaire.

Q11: Any information about the requirement and placement of AIS equipment?

A: As a point of departure it is not required to use AIS equipment in Denmark.

Q (06.08.2015): Clarification regarding KFL - offshore substation - electrical

Please provide details of the 33 kV switchgear and power transformers of the EOS (on HVAC platforms) for 400 MW and 200 MW part of the windpark.

- **Single line diagram**
- **Rated current of incoming circuit breakers and of busbars**

A: Energinet.dk has prepared a single line diagram for both the transformer platforms (200MW and 400MW). On the KFA (200MW) there will be 6 radials. On KFB (400MW) there will be 12 radials.

All the 33kV switchgear equipment must be purchased by the windfarm owner.

Information on rated current of incoming circuit breakers and of busbars is provided on the single line diagrams.

Single line diagram: [KFA-KFB 220-33kV 200MW platform](#)

Single line diagram: [KFA-KFB 220-33kV 400MW platform](#)

Q: An additional question to below question 5, is if it is possible to change the orientation of some of the J-tubes groups after the concession award in spring 2015? As ENS is describing, the platform is placed in the middle of the wind farm area, and it could for some layouts where WTGs maybe is placed all the way around the platform be more beneficial to have the J-tube pointing in the directions of the WTG instead of pointing only to the north and west.

A: (14.08.2014) 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 has been verified by DNV and changes to the design will require a new verification which might delay the finalization of the jacket construction.

Q: The wind farm is planning to use the reactive power compensation capability of the wind turbines. In this case first time energization of infield cables will generate some reactive power at the point of connection offshore until the WTG's are energized and will compensate and control the excessive reactive power from the infield cables. Will this solution be accepted by the Energinet.DK?

A: (04.07.2014): This would not be accepted as it is stated in the TF 3.2.5:2010 that a wind power plant shall be neutral (0 Mvar @P=0) concerning reactive power balance even it's not producing active power. It should be possible for the concessionaire to solve the problem through the use of up-to-date turbines of high quality.

Q: Please clarify which party has overall system responsibility for the project ? (e.g. who will be performing and have responsibility for overall system harmonics analysis ?)

A: (04.07.2014) As stated in the TF 3.2.5:2010 the facility owner is responsible concerning compliance to all requirements including power quality parameters.

Q: If a power cut should occur due to damage or failure on the export cable after the wind farm has been put into operation will Energinet.dk's liability be unlimited or will the 400 million limit apply?

A: (03.07.2014): As the Concessionaire has been granted a license for electricity production pursuant to section 29 of the RE ACT, the whole wind farm has been put into operation and the shut-down of the electricity is necessary due to defects in the facilities of the facilities for transmission (failure on the export cable) it will be section 35, cf. section 34, of the RE Act, which governs this payment. This means that Energinet.dk's liability be unlimited.

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-tubes at 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 bell 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: 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: Energinet.dk has earlier announced that they will keep the measuring systems at the projects simple and not charge for energy use at the wind farms. Does this also apply to the construction phase and commissioning, provided the turbines are connected to the grid?

A (20.02.2014): It is correct that measuring of auxiliary power for concession owners equipment on the platform will be kept simple and not charged.

Power used for the wind farm during installation period and idle periods after the park is put into service will be charged, the power for this will be measured by the bi-directional energy meters measuring the power at the 33 kV side of the 220/33 kV transformers.

See also DEA's "Horns Rev 3 & Kriegers Flak platform interface and MV switchgear – Comments" page 5; where following can be found:

- Question: What will be the rate DKK/kWh consumed for the stand-by of the wind farm, in case the HVDC link to Denmark is down and energy from Germany is being consumed
- Answer: The Danish TSO will be financially responsible for any grid problems and the consumption used for stand-by of the wind turbines will always be purchased at in the market in Eastern Denmark. This also applies even if the actual consumption is being met by German suppliers.

Q: The information regarding MV equipment to be designed, purchased and installed in the Offshore Substation is contradictory. One DEA document states that the winning bidder should design, procure and install the MV equipment. But on the Technical Dialogue meeting on 10 September 2013 Energinet.dk stated that they will design, procure and install the MV equipment and the winning bidder will pay a lump sum to cover the costs. Can you please clarify this?

A (21.01.2014): We plan to make an announcement within the next weeks which will clarify the matter. The clarification will be part of a note that provides answers to all the platform-related questions following the technical dialogue meeting on 10 September 2013.

Q: Will it be possible for the winning bidder to install a diesel genset on the Offshore Substation for supplying the WTGs during power outage?

A (21.01.2014): We will also clarify this matter in the above-mentioned note which we plan to publish shortly.

Q: Will it be possible to set up a meeting with Energinet.dk to discuss grid code compliance? The purpose of the meeting is to clarify all TSO requirements before releasing the WTG ITT to the market.

A (21.01.2014): Energinet.dk will be delighted to discuss grid code compliance. As the matter is of general interest, however, we plan to invite all interested parties in the tender process to attend an open meeting on grid codes and perhaps also other remaining issues concerning the electrical system. We plan to publish the date for the meeting on the webpage next week. It is highly likely that the meeting will take place end of February.

Prequalification

Q (25.09.2015):

Regarding the annual turnover requirement, the tender indicates that "turnover" has the meaning of the IFRS definition of "revenue". Given this, we understand "turnover" to mean gross operational revenue, realized gains on investment, and unrealized gains on investment. Could you please confirm.

A: Yes, the DEA can confirm that turnover can be stated as the sum of gross operational revenue, realized gains on investment and unrealized gains on investment.

Q1 (24.09.2015)

It is intended to submit an application for prequalification on behalf of a company ("SPV"), which will not be established at the time of the application. It is expected that there will be three founding companies (the future owners) of which one company is expected to be a new company, which will not be established until immediately before the time limit for the application for pre-qualification. As regards the two other founding companies, annual reports are available for the preceding financial years. These two companies comply with the demand for an equity ratio of minimum 20 % in the past financial year. The third founding company - the new company - will also comply with the demand for an equity ratio of minimum 20 % - but will, for obvious reasons, not be able to present annual reports for the preceding financial year, and will therefore not be able to document an equity ratio of minimum 20 % in the past financial year. Please state alternative documentation concerning financial capability, which will be accepted in relation to this new company concerning the demand for an equity ratio of minimum 20 %. Please also note that it will not be possible in terms of time for the new company to obtain a long-term debt rating which may be an alternative to the demand for an equity ratio of 20 % according to the contract notice.

Please note the principle of article 47 (5) of the Public Procurement Directive according to which an applicant/tenderer may document its financial capability in another manner than required if valid reasons exist in this respect.

A: Article 47 (1) of the Public Procurement Directive has the following wording:

Proof of the economic operator's economic and financial standing may, as a general rule, be furnished by one or more of the following references:

(a) appropriate statements from banks or, where appropriate, evidence of relevant professional risk indemnity insurance;

(b) the presentation of balance-sheets or extracts from the balance-sheets, where publication of the balance-sheet is required under the law of the country in which the economic operator is established;

(c) a statement of the undertaking's overall turnover and, where appropriate, of turnover in the area covered by the contract for a maximum of the last three financial years available, depending on the date on which the undertaking was set up or the economic operator started trading, as far as the information on these turnovers is available.

Article 47 (5) of the Public Procurement Directive has the following wording:

If, for any valid reason, the economic operator is unable to provide the references requested by the contracting authority, he may prove his economic and financial standing by any other document which the contracting authority considers appropriate.

Although article 47 does not apply to this tender procedure the above may to some degree serve as guidance when considering the possibilities for accepting alternative documentation.

In respect of article 47, it is generally considered a valid reason for not being able to provide the economic and financial references requested if the economic operator is under incorporation or is a newly established company, cf. inter alia bill no L 164 of 18 March 2015 on a new Danish Public Procurement Law, page 170 in respect of § 154, stk. 2 and ruling of 3 January 2002 of the Danish Complaints Board on Public Procurement ("Klagenævnet for Udbud").

In the light hereof DEA will accept if a newly established founding company can document an equity ratio of minimum 20% at the time of applying for prequalification by way of a statement from a state-authorized accountant or similar. Such statement should also include information on the total equity and total assets of the newly established founding company.

Please note that where the applicant is a not yet established company the combined sum of yearly overall turnover of all of the economic operators (future founding companies) must pass the threshold for overall turnover (in average over the last 3 years). In respect of technical capacity the sum of references for the economic operators shall meet the minimum requirement of at least one reference within project development and management of construction regarding an offshore wind farm of minimum 150 MW installed capacity, including all the key areas mentioned in the contract notice section III.1.3, letter K, litra g. (i.e. it is not required that each single economic operator meet the technical minimum requirement).

Q2 (24.09.2015): In which detail must the governmental structure of not yet established company be detailed? We intend to establish a structure under our company XXX A/S and subsequently also an I/S, that is in fact 3 companies. Is it sufficient with a general description of the governing structure?

A: A general description of the governing structure will be sufficient, however please note that where the applicant is a not yet established company, this should be stated in the application and the future founding companies should also be clearly identified. The DEA must be able to clearly identify the founding companies in order to be sure that the applicant (the I/S) continues to have the same identity throughout the tender procedure.

Q3 (24.09.2015): A reference project is held by a SPV, which has a parent company that had full managerial control of the SPV/project during development and construction, and continues to have managerial control during the project's operation to date. In addition, the technical staff which originally developed and constructed the project will no longer report to the SPV, but rather to another company held by the same parent company.

- 1. Could you please confirm that the parent company itself can reference the project to meet the technical experience qualification, without having to reference or rely on the project SPV. We note that the purpose of the SPV is to be able to sell-on the project itself, while maintaining the technical capacities and experience of the development and construction team under the parent company.**
- 2. Could you please confirm that once the parent company receives pre-qualification per above, it will be able to establish an SPV that would be the bidding company in the tender, so long as the SPV is wholly owned by the parent company, and the parent company has full managerial control of the bidding SPV?**

Answer for 1 & 2:

Re. 1) The technical capacity/experience is considered to follow the actual company (economic operator) where the experience is obtained.

However, if this company (economic operator) has transferred the relevant branch of activities (constituting an independent business) to another company, this other company will then be 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, where the experience is obtained, has been transferred, if this does not represent a branch of activities (constituting an independent business). The “relevant branch” shall be determined taking into account the experience in question. Please also see section 8, page 18 of the PQQ.

It will therefore only be possible for the parent company to reference the project where the technical capacities/experience is actually obtained by the parent company or if the relevant branch(es) of activities (constitution one or more independent business(es)) has/have been transferred to the parent company.

Where this is not the case the parent company itself can not reference a project to meet the technical experience qualification, without having to rely on the project SPV actually holding the relevant technical capacity/experience, by submitting a declaration of support from the SPV.

In case of doubt, the parent company may consider to include a declaration of support from the SPV in any event.

Re. 2) The DEA is not able to confirm this in general. If a pre-qualified applicant wishes to establish a SPV to submit the final bid, this will require the prior written approval of the DEA, who will assess such request for changes based on the relevant existing Danish regulation at the time and the specific merits of the individual situation.

Please note however that pursuant to Danish case law it should be expected that great emphasis is put on whether identity can be established between a pre-qualified entity and the entity submitting the final bid. Reference is furthermore made to the executive presentation on “Subsequent changes of a tenderer – New offshore wind tenders in Denmark – a general non exhaustive overview”, pages 2-6.

Additionally, in respect of permitted changes after contract award, the DEA draw the questioner’s attention to page 7 and 10 in the executive presentation on “Subsequent changes of a tenderer – New offshore wind tenders in Denmark – a general non exhaustive overview”.

Finally, please note that it is possible to apply for prequalification on behalf of a not yet established company and that such company will only need to be incorporated just prior to the signing of the concession agreement, see also answer to question 25 from september 18, 2015..

Q4 (24.09.2015): If a company is referenced to demonstrate financial / economic qualification, is it a requirement that future investment in the project come from that same referenced company? We understand that the referenced company would have to remain joint and severally responsible as described in the tender, but from the tender announcement we so no reason the actual investment couldn’t be made by another company (e.g. a yet to be formed investment fund) — could you please confirm.

It is not required that a company referenced to demonstrate financial/economic qualification is also funding the project. The actual investment can therefore be made by another company.

It is furthermore correct that a company referenced to demonstrate financial/economic ability will be required to undertake joint and several liability with the applicant.

Q (22.09.2015): In the PQQ document an electronic version of the PQQ submission is requested in a suggested format of a memory stick. As an alternative could an electronic version of the submission be sent by email or via a secure file download server?

A: Yes. The DEA refers in this case to the contract notice section VI.2, where the application is asked to be sent in 1 original application in hard copy, 2 hard copies of the original and 1 electronic copy of the application.

Q1-36 (18.09.2015)

Q1: Is it possible to buy in into a prequalified company entity prior to or after contract award, for instance shares?

A: The current case law is very strict and there is rather limited access to undertake changes during the tender procedure (prior to contract award). Please see the executive presentation on “Subsequent changes of a tenderer – New offshore wind tenders in Denmark – a general non-exhaustive overview”, page 2-6.

Based on the existing limited case law from the Danish Complaints Board for Public Procurement great emphasis is put on whether there is identity between a prequalified company and the company submitting the final bid. As long as the legal entity, which has been prequalified remains the same; transfer of the shares of the prequalified entity prior to contract award will generally be permissible. Please note that it is the intention of the DEA to include more detailed information on permissible changes during the tender procedure in the tender conditions.

Regarding changes in a limited liability company (A/S, ApS or similar) after contract award please pay attention to the European Court of Justice’s (ECJ) ruling in case C-454/06, Priesetext, paragraph 40, where the ECJ stated that:

“As a rule, the substitution of a new contractual partner for the one to which the contracting authority had initially awarded the contract must be regarded as constituting a change to one of the essential terms of the public contract in question, unless that substitution was provided for in the terms of the initial contract, such as, by way of example, provision for sub-contracting.”

However, in the same case, the ECJ stated in paragraph 51 that:

“Public contracts are regularly awarded to legal persons. If a legal person is established as a public company listed on a stock exchange, it follows from its very nature that the composition of its shareholders is liable to change at any time. As a rule, such a situation does not affect the validity of the award of a public contract to such a company. The situation may be otherwise in exceptional cases, such as when there are practices intended to circumvent Community rules governing public contracts”.

The DEA kindly informs that it is the intention of the DEA to include a review clause in the concession contract which will inter alia cover changes in a capital company after contract award.

A draft on this review clause can be found [here](#) or on the DEA’s website [here](#).

It is important to underline that it is only a draft and that the DEA might change the wording and content of the review clause in the tender conditions.

Q2: Does a Consortium have to be established as some kind of legal entity (e.g. A/S or I/S ...) prior to the prequalification date?

A: No, it is not a requirement that a consortium undertakes a specific legal form prior to the prequalification date.

Q3: If the answer to question 2 is no, does the Consortium have to be established as some kind of legal entity after contract award?

A: No.

Q4: Except for the relevant forms and the PQQ document, is there additional information to be given for a Consortium?

A: A Consortium must provide the requested information set out in the PQQ document including the relevant forms and the Contract Notice.

Q5: What kind of information should be included in the A3-2 in the PQQ “Explain the joint venture structure”

A: Please describe the information stated under the Prequalification Questionnaire (PQQ), section 1, A3.2, as good as possible:

“...Explain the consortium/joint venture structure, the role of each consortium/joint venture member, their shareholdings and how relationships will operate (should be confined to approx. 1000 words).”

It is not a requirement that the description is of a certain length; however it should not exceed the maximum of approximately 1,000 words.

Q6: Do the rules applying for economic operators in a consortium apply also to industrial partners?

A: The term “economic operator” is to be understood as in the meaning of the Directive 2014/18/EC on the coordination of procedures for the award of public works contracts, public supply contracts and public service contracts (the Public Procurement Directive).

In accordance with article 1(8), subsection 2 in the Public Procurement Directive, the term “economic operator” covers:

“equally the concepts of contractor, supplier, and service provider. It is used merely in the interest of simplification.”

An industrial partner can therefore also be considered an economic operator.

Q7: May the same technical references be used both for the prequalification of a consortium and for separate companies of the same owners also prequalifying for the same tender?

A: Yes, more than one applicant can rely on the technical references of the same company (e.g. parent company) provided such company has issued a declaration of support to each applicant.

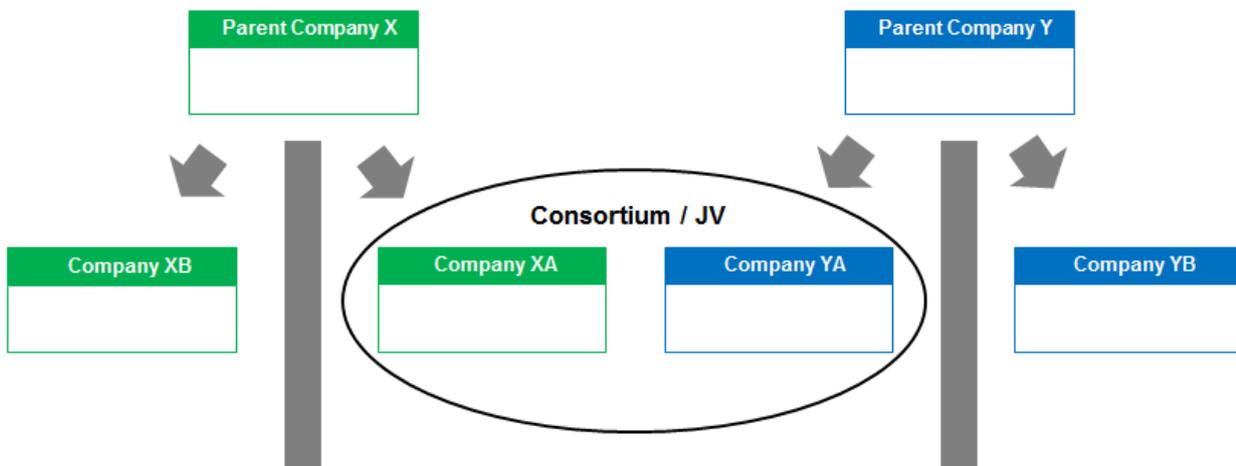
Q8: May the same financial references (PQQ Form 2 and Section III.1.2), letter E and F of the Contract Notice) of a parent company be used both for the prequalification of a consortium and for separate companies of the same owner also prequalifying for the same tender?

A: Yes, more than one applicant can rely on the financial capacities of the same company (e.g. parent company) provided such company has issued a declaration of support to each applicant.

Q9: Can the economic guarantees come from the same entity (parent company) both for a consortium and an individual tendering entity?

A: No economic guarantees are to be provided at the time of prequalification. However, if an applicant relies on the financial capacities of a parent company for prequalification the applicant must document that it has at its disposal the necessary resources, for instance by providing documentation that the applicant can rely on the capacities of the parent company in this respect. More than one applicant can rely on the financial capacities of the same (parent) company, provided such (parent) company has issued a declaration of support to each applicant.

Q10: May a company structure as follows be allowed to prequalify?



A: »We understand the question to concern a situation where different companies of the same group (sharing an ultimate parent company), each apply for prequalification either alone or as part of a consortium/JV.

In principle, the above company structure may be allowed to prequalify. However, cf. the contract notice, section III.1.1.C, in case of an economic operator associated with the applicant submits an application for pre-qualification, appropriate measures to maintain confidentiality and to protect the competitive process must be implemented. Furthermore, the applicants must demonstrate to the reasonable satisfaction of DEA that they will maintain confidentiality and avoid distortion of the tender process.

The existing legal praxis only provides limited guidance on what additional measures are considered sufficient to maintain confidentiality and avoid jeopardizing transparency and distorting competition. However to the extent that material decisions in preparing and submitting tenders during this tender procedure must be approved by the same (ultimate) parent company or the (ultimate) parent company should otherwise be consulted on decisive factors relating to this procedure it cannot be ruled out that such structure could lead to distortion of competition through collusion. Furthermore it could also entail certain problems in respect of maintaining the required confidentiality. The European Court of Justice have in C-538/07, Assitur, paragraph 31, to a minor extent provided some guidance to what kind of provisions that can be set in place to maintain confidentiality and to avoid distortion of competition.

The DEA reserves the right at any time during the tender procedure to request information from an applicant to the extent found necessary by the DEA, to assess whether the relationship between one or more prequalified applicants have a specific unacceptable effect on their conduct in the course of the tender procedure.

DEA furthermore reserves the right to exclude a prequalified applicant from further participation in the tender process if appropriate measures are not executed and maintained throughout the tender procedure and the DEA finds that this has an effect on the conduct of the applicant in the course of the tender procedure capable of distorting competition and jeopardizing transparency.

The DEA encourages all potential applicants to seek their own individual legal advice on the lawfulness of contemplated structures and cooperation in connection with this tender procedure.

Q11: Could the same company be used in both applications (i.e. Company A = Company B in the illustration) if different personnel would be responsible for the applications?

A: The DEA finds it difficult to give a firm and final answer to this question since it is subject to a specific and individual assessment of whether there is a risk of occurrences of practices capable of jeopardizing transparency and distortion of competition between tenderers.

As stated in the contract notice, section III.1.1.C, an economic operator may in principle participate in the submission of more than one application for prequalification.

If the same company/legal entity hands in two applications – one on behalf on itself and one as a member of a consortium/joint venture – it further follows from the contract notice that appropriate measures to maintain confidentiality and to protect the competitive process must be implemented. Furthermore, the contract notice states that the applicant must use different contact points (i.e. different personnel) in the application submitted and the applicant must demonstrate to the reasonable satisfaction of the DEA that it will maintain confidentiality and avoid distortion of the tender process.

Where one or more companies participating in an application for prequalification is also a participant of another applicant (e.g. a consortium), the DEA will under Danish public procurement law be entitled to refuse one or more applications for prequalification to the extent that this is found to be necessary in order to ensure competition and/or the upholding of the principle of equal treatment.

The existing legal praxis only provides limited guidance on what additional measures are considered sufficient to maintain confidentiality and avoid jeopardizing transparency and distorting competition. However the DEA finds that there is a rather great risk that a company/legal entity that hands in two applications and later two tenders will be in a position where it will be difficult entirely to avoid coordination of tenders, even if different personnel in this company/legal entity is responsible for handling the application and later the tenders, please also see the answer to question no 10 above.

Therefore, the DEA furthermore reserves the right to exclude a prequalified applicant from further participation in the tender process if the DEA finds that appropriate measures are not executed and maintained throughout the tender procedure and the DEA finds that this has an effect on the conduct of the applicant in the course of the tender procedure capable of distorting competition and jeopardizing transparency.

The DEA encourages all potential applicants to seek their own individual legal advice on the lawfulness of contemplated structures and cooperation in connection with this tender procedure.

Q12: Could there be two or several contact persons for a consortium of 2 or more parties?

A: No, the DEA will only accept one contact person.

Q13: Does "financial partner" on page 13 of your presentation The executive presentation on the possibility of changing tenderer dated 18.06. mean (i) a financial partner (opposed to an industrial partner) or (ii) a financing party (rather equity or debt, irrespective of its business activities)?

A: The DEA kindly informs that it is the intention of the DEA to include a review clause in the concession agreement which will allow for the addition of a new member after contract signing. However, an addition of a new member will always be subject to approval from the DEA.

A draft on this review clause can be found [here](#) or on the DEA's website [here](#).

It is important to underline that it is only a draft and that the DEA might change the wording and content of the review clause in the tender conditions.

As a consequence of this, the DEA will change the wording of page 13, section 2 in the executive presentation on "Subsequent changes of a tenderer – New offshore wind tenders in Denmark – a general, non-exhaustive overview" so it states "addition of a new member" instead of "addition of a financial partner".

Q14: Do the PQ-participants need to precisely define the specific SPV that will be shareholder in the JV? Or is it sufficient to determine the final shareholder entity prior to contract award? (e.g. pension fund does PQ with fund no. 1, later replaced by fund no. 99).

A: The entities applying for prequalification as part of a consortium/JV should be clearly identified in the application for prequalification.

Where the members of a prequalified consortium/JV are changed during the tender procedure prior to contract award the identity between the prequalified entity and the entity submitting the final tender is considered lost.

If a prequalified consortium/JV wish to establish a separate legal entity to enter into the concession if awarded the contract, this will be possible provided all consortium/JV members undertake joint and several liability with the new legal entity.

If a consortium/JV member wishes to participate in the consortium/JV through a SPV, if awarded the contract, the prequalified member does not need to identify such SPV up front, but the consortium/JV member must undertake joint and several liability with the SPV upon entering into the concession contract.

Q15: What impact might the choice of the legal form have on changes after contract signing? Would changes in the JV-structure in a partnership (e.g. I/S) rather lead to a material change of the contract than changes in a capital company?

A: The DEA cannot give a firm and final answer to this question, as whether a change should be considered material will always depend on a specific assessment of each case.

However, the DEA can inform that changes in a JV-structure in a partnership organised as an I/S (interessentskab) can under certain circumstances be considered a (legal) termination of the legal entity in accordance with Danish law.

Relating to changes in a capital company (here understood as a limited liability company like an A/S, ApS or similar) please refer to the European Court of Justice's (ECJ) ruling in case C-454/06, Presstetext, paragraph 40, where the ECJ stated that:

"As a rule, the substitution of a new contractual partner for the one to which the contracting authority had initially awarded the contract must be regarded as constituting a change to one of the essential terms of the public contract in question, unless that substitution was provided for in the terms of the initial contract, such as, by way of example, provision for sub-contracting."

However, in the same case, the ECJ furthermore states in paragraph 51 that:

Public contracts are regularly awarded to legal persons. If a legal person is established as a public company listed on a stock exchange, it follows from its very nature that the composition of its shareholders is liable to change at any time. As a rule, such a situation does not affect the validity of the award of a public contract to such a company. The situation may be otherwise in exceptional cases, such as when there are practices intended to circumvent Community rules governing public contracts.

It is the intention of the DEA that the review clause, mentioned above under the answer to question 13, will cover changes in a capital company as well.

A draft on this review clause can be found [here](#) or on the DEA's website [here](#).

It is important to underline that it is only a draft and that the DEA might change the wording and content of the review clause in the tender conditions.

Q16: Regarding the permitted changes after contract signing: Would it be considered as change in the composition of the consortium if the shareholdings in a JV-Partner (HoldCo) would be transferred to a third party? Would your assessment differ in case (i) a minority or (ii) a majority of HoldCo-shareholdings (shareholders' shareholder) is subject to such a transaction?

A: The DEA understands the question to concern changes in ownership of a company holding shares in a member of a consortium/joint venture.

The DEA cannot give a firm and final answer to this question. In case of a contemplated change in the ownership structure of a prequalified consortium the DEA will always undertake an individual assessment in the light of the current and then-existing case law, hereby also whether the contemplated changes in the shareholdings of the holdco may be intended at circumventing the public procurement rules. To the extent relevant, any accept of a contemplated change will furthermore be subject to approval of the (indirect) transfer of the authorization to produce electricity pursuant to section 10 of the Electricity Supply Act, cf. Consolidating Act no. 1329 of 25 November 2013.

Generally however, it should be expected that changes of the composition of shareholders in companies participating in a consortium will be permissible, cf. the above stated in respect of European Court of Justice, case C-454/06, Presstetext. Furthermore it should also be expected that a transfer of shares in a parent company of a holding company (shareholders' shareholder) will be permissible.

Q17: Do the requirements with regards to shareholder's obligation (joint and several liability) towards DEA substantially differ from the requirements imposed on the investors in Horns Rev 3?

A: No. Legal entities supporting the tenderer under the Horns Rev 3 tender procedure was also required to co-sign the concession contract and undertake joint and several liability with the concessionaire. The scope and extent of the joint and several liability under this tender is not expected to substantially differ from the requirements imposed on the investors in Horns Rev 3.

Q18: Will there be a cap on the decommissioning obligation?

A: Obligations in relation to decommissioning will be stated in the tender conditions. In general, it is not expected that there will be a cap on the decommissioning obligation for Danish offshore wind farms.

Q19: In case of replacement of members, will the replaced member be jointly and severally liable for decommissioning?

A: The DEA intends to include a review clause in the concession agreement. The review clause will also regulate the replacement and removal of concession/joint venture members. A draft on this review clause can be found [here](#) or on the DEA's website [here](#).

It is important to underline that it is only a draft and that the DEA might change the wording and consent of the review clause in the tender conditions.

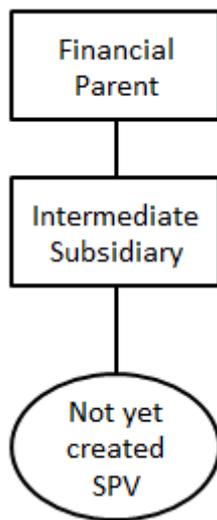
Q20: Please list all needed decision from DEA / Danish State regarding the winning bid before it gains legal force and when these decisions were taken for Horns Rev 3.

[Un-answered. The DEA will answer this question as soon as possible.]

Q21: If a "not yet created SPV" applies for prequalification with support from one (or several) supporting company (companies), what should be written in the PQQ under:

- A1 – 2
- A1 – 6
- B1 – 1
- B1 – 2
- B2
- B5
- B6

Could the details and information of the "not yet created SPV's" owner company be given? From our side, this would be preferable especially since the "not yet created SPV" is not planned to be a direct subsidiary to the main parent company on whom the "not yet created SPV" can rely on financially. In the example below the information from the Intermediate Subsidiary would be given in place of the "not yet created SPV".



A:

- It will be acceptable that the name of the applicant is stated as “ a not yet established subsidiary of [owner company]” in A.1 – 1 “Name”
- In respect of A.1 – 2 “Full postal address”, the address of the owner company may be inserted, if the SPV “under establishment” will have its address there or leave it blank.
- In A1 - 6 “Country of registration”, “not yet established” may be inserted.
- In respect of B1 + B2 “Economic and financial standing”, these should not be filled out/ submitted for the SPV, however B3 should be crossed off and the information covered by B1 + B2 should be submitted for all companies on which the SPV is relying financially along with the required documentation that the SPV can rely on the capacities of the such companies.
- B5 should be crossed of confirming that the SPV together with the companies upon which it relies financially fulfils the minimum requirement for financial capacity in terms of minimum yearly turnover.
- B6 should be filled in confirming that the supporting companies fulfil the minimum requirements for financial capacity in terms of equity ratio or long term debt rating.

Q24: Please confirm that Total equity can be calculated as Equity + (Untaxed reserves * (1 – corporation tax))

A: To the extent that this calculation of Equity is in accordance with the national accounting rules and requirements for financial reporting in the applicant’s country of registration, the DEA accepts that the total equity is calculated as set out above when calculating the equity ratio. All applicants are encouraged to seek their own individual legal and financial advice in preparing their application for prequalification under this tender procedure.

Q23: We plan to apply as 50% - 50% consortium with equal agreement power. However to make the day to day construction and operation work function optimally one of the parties, currently not finally decided which, will assume operatorship during construction and operation. Must this decision be taken before prequalification?

A: »Pursuant to the contract notice section III.1.1, litra B the organization of the consortium/joint venture must be described, including the division of tasks within the consortium/joint venture.

However to the extent that it has not yet been decided which consortium member who will take on the role of operatorship during construction and operation at the time of prequalification, it will be sufficient to just describe the intended organizational setup, without identifying which member will take on this role.«

Q24. How much of the steering of the consortium must be included in the prequalification description i.e.

- a) Steering Committee procedure**
- b) Voting Commitments**
- c) Deadlock Procedures**
- d) Management Board description**
- e) Shareholder meeting**

A: Please refer to PQQ A.3, no. 2 according to which an applicant consortium should explain the consortium structure, the role of each consortium member, their shareholdings and how relationships will operate. This description should not exceed approximately 1,000 words. The primary purpose of this description should be to provide the DEA with a (high-level) general understanding of the consortium structure and how the cooperation, including decision-making, between the consortium partners will be organized. Detailed descriptions of different decision-making procedures will therefore not be required. Please also refer to question no. 5.

Q25: In PQQ Form No. 3 it says: (herinafter "the above stated undertaking") hereby declares that the [insert name and business registration number of the applicant] which applies for prequalification can rely on the capacity of the above stated undertaking with respect to the information stated in section III.1.2) of the Contract Notice.

If the applicant is a joint venture, should the support form be directed at one specific JV partner since Form No 1 will make sure that all JV members in jointly liable or should the support form be directed at the JV as a whole? In either case what should be written in the yellow part.

A: The declaration of support must be issued to the applicant. Where the applicant is a joint venture, the declaration of support should be directed at the joint venture as such.

The joint venture may be identified in PQQ Form No 3 (the yellow part) as: "[JV NAME] a joint venture consisting of [company X], business registration no [xxxxxxx] and [company Y], business registration [xxxxxxx]".

If the applicant is a, to be created SPV, could the company to which the SPV will be a subsidiary to be inserted in the yellow part above?, i.e.: (herinafter "the above stated undertaking") hereby declares that XYZ A/S, through a, to be established, Special Purpose Vehicle (SPV), which applies for prequalification can rely on the capacity of the above stated undertaking with respect to the information stated in section III.1.2) of the Contract Notice.

A: The declaration of support should be issued to the applicant. Where the applicant is a not yet established SPV, the declaration of support should be directed at the SPV as such.

The SPV may be identified in PQQ Form No 3 (the yellow part) as: "a not yet established subsidiary of [company X], business registration no [xxxxxxx]".

Q26: We understand from the presentation "Subsequent changes of a tenderer" that DEA will accept if a winning tenderer transfer its concession contract to a 100% owned subsidiary post award but this acceptance

may be subject to the winning tenderer undertaking joint and several liability with the subsidiary. Will the DEA also require joint and several liability from the winning tenderer if the winning tenderer as part of its bid has already provided a Declaration of Support – Economic and financial capacity from e.g. its parent company?

A: Any transfer of the concession contract requires the prior written approval of the DEA. In accessing a request for transfer and the question of whether to require the initial tenderer to undertake joint and several liability with its subsidiary, the DEA will inter alia put great weight on whether the concessionaire continues to satisfy the requirements for technical and financial capacity considered necessary to operate, maintain and dismantle the offshore wind farm (Please also see question no. 16). If this concern, in the opinion of the DEA, is not sufficiently catered for with the existing declarations of support provided by the tenderer initially, the DEA will generally require the initial tenderer to undertake joint and several liability in connection with a transfer of the concession contract to a 100% owned subsidiary.

Q27: Will the review clause only allow for addition of a "financial partner" to a winning consortium after contract signing, or will addition after contract signing of one or more partners which cannot be categorized as "financial partners" also be possible?

A: Please see answer to question no 13 and the published draft review clause.

Q28: Is our understanding correct, that applicants that intend to enter into a consortium (that has not already been incorporated) do not need to sign the "Consortium Declaration" (Form No. 1)? Our understand is, that only one of the potential future consortium members needs to sign the "Declaration of support" (Form no. 3 and 4)?

A: It is not a requirement that a consortium undertakes a special legal form prior to the prequalification date. A group of economic operators are allowed to put themselves forward as candidates and apply for prequalification. Please also see question 2 and 3.

The entities applying for prequalification as part of a consortium should be clearly identified in the application for prequalification and all members should execute the Consortium Declaration in Form no. 1.

If follows from the contract notice, section VI.2, no. 6 (II), that "If the applicant consists of more than 1 economic operator and/or the applicant relies on the turnover of other economic operators in order to meet the financial minimum requirements the combined sum of yearly overall turnover of all of the economic operators must pass the threshold for overall turnover (in average over the last 3 years) and each economic operator must either pass the threshold for equity ratio (total equity/total assets) or credit rating to meet the financial minimum requirements."

Only to the extent that the applicant consortium relies on financial or technical capacities of third parties, not being members of the consortium, will it be required to submit a declaration of support (form 3+4).

Q29: We understand that a consortium can establish a special purpose vehicle (SPV) after prequalification but before submitting a final bid, in order for such SPV to become the bidder (in case a final bid is submitted) and - if the bid is successful - the contracting party under the concession contract. We further understand that such use of a SPV after prequalification would be subject to DEA's consent but such consent would not be unreasonably withheld by DEA. If such envisaged concept is being made transparent already in the application for prequalification, are any members of the consortium required to sign the "Consortium Declaration" (Form No. 1) or rather the "Declaration of Support" (Form no. 3 and 4)?

A: Reference is made to the presentation on Subsequent Changes of Tenderer_18.06.2015, published on the DEA website.

Based on current case law, access to undertake changes in a prequalified consortium during the tender procedure prior to contract award is considered rather limited and can only be made with the prior written accept from the DEA, cf. contract notice section VI.2, no.9.

Due to the limited case law the DEA urge the potential applicant to carefully consider their constellation before applying for prequalification and recommend that applicants generally avoid changes to the prequalified entity before contract award.

The DEA will assess the permissibility of a requested change on a case by case basis based on the specific circumstances applying to the applicant in question and based on the concerns set out in the contract notice section VI.2, no. 9 and the presentation on subsequent changes dated 18.06.2015.

Also see answer to question 28 and 30.

Q30. In case the “Declaration of Support” is the appropriate form of declaration, is our understanding correct that only one undertaking needs to sign the “Declaration of support” (Form no. 3 and 4) and only such undertaking needs to commit to the joint and several liability towards DEA with the contracting party under the concession contract, provided that with the support of such undertaking the future SPV fulfils all prequalification criteria?

A: In case of the applicant being a consortium please refer to the answer to question no. 28.

Where the applicant is a not yet established subsidiary of one or more companies such founding companies should sign the “Declaration of Support” (Form no. 3 and 4).

If follows from the contract notice, section VI.2, no 6 (II), that “If the applicant consists of more than 1 economic operator and/or the applicant relies on the turnover of other economic operators in order to meet the financial minimum requirements the combined sum of yearly overall turnover of all of the economic operators must pass the threshold for overall turnover (in average over the last 3 years) and each economic operator must either pass the threshold for equity ratio (total equity/total assets) or credit rating to meet the financial minimum requirements. The same will apply for the founding companies/future owners if the applicant is a company that is not yet established at the time of prequalification application” [our underlining].

Q31: In case rather the “Consortium Declaration” needs to be signed, is it sufficient if not all but only one or some of the consortium members sign it and only such members who sign it need to commit to the joint and several liability towards DEA with the contracting party under the concession contract, provided that with the support of such member(s) the future SPV fulfils all prequalification criteria?

A: No. See answer to question no. 28.

Q32: Is it a requirement that each specific shareholder (including shareholders in the form of SPVs) in a consortium requesting for prequalification is identified at the time of such request? Or is it sufficient to determine the final shareholder entity prior to contract award? By way of example: a pension fund (represented

by its fund manager) requests for prequalification as a party to a consortium on the basis of pension fund no. 1, but this fund is later replaced by pension fund no. 99 controlled by the same fund manager.

A: Please see answer to question no. 14.

Q33: According to the Contract Notice III.1.2) an applicant must - amongst other information - submit a statement of the applicant's equity ratio as a percentage of total assets (total equity/total assets x 100) for the latest financial year (i.e 1 year only). According to the Contract Notice VI.2 the applicant must have an equity ratio of 20 % or as an alternative a long term debt rating.

Is it possible to fulfil the requirement of the above equity ratio by submitting an auditor's statement confirming that the applicant's current equity ratio is equal to or above 20 %, if the applicants equity ratio for the latest financial year is below 20 %?

A: No. According to the Contract notice section VI.2, no 6(II) and the PQQ section 6, page 15, the minimum required equity ratio must be met for the latest financial year.

Please note that where an applicant does not meet the minimum required equity ratio for the latest financial year, an applicant can still meet the alternative minimum requirement of a long term debt rating of BBB- or above (Standard & Poor's and Fitch) and/or Baa3 or above (Moody's) or an equivalent rating from another reputable international credit rating agency.

Q34: On 14 September 2015, the DEA published a Draft on a review clause setting out the more detailed rules on permitted changes to the concessionaire after signing the concession agreement. Could the DEA please confirm that this draft review clause merely governs the following situations: i) a change of control in a capital company (i.e. where the concessionaire is a (standalone) capital company) and ii) a removal, replacement or addition of a consortium member/joint venture member (i.e. where the concessionaire is a consortium or a joint venture)?

A: The DEA can confirm that the draft on the review clause is only regulating changes to the concessionaire, in the form of either:

i) changes of control, if the concessionaire is a capital company, i.e. a SPV or similar, as set out in section 1 of the draft on the review clause, or

ii) changes (removal, replacement or addition) of a consortium member/joint venture member set out under section 2 of the draft on a review clause.

Q35: Thus, could the DEA please confirm that the published draft review clause does not govern a situation, where the concession contract (post award) is transferred to a company, which is 100% owned and controlled by the concessionaire?

A: As such it is correct that the review clause does not govern the situation where the concession agreement (post award) is transferred to a company, which is 100 % owned and controlled by the concessionaire. However, any transfer of the concession contract will require the prior written accept of the DEA.

Please also pay attention to the answer to question 26 and the executive presentation on “Subsequent changes of a tenderer – New offshore wind tenders in Denmark – a general non-exhaustive overview”, page 7.

Q36: It appears from the tender notice that ‘If the concession contract is awarded to an applicant that is a special purpose vehicle (‘SPV’) the owners are required to undertake joint and several liability.’ On the contrary, it is set out as an answer to one of the FAQs in the presentation on joint and several liability that ‘only the company will be joint and several liable. The risk of shareholders is limited to the capital invested in the company, unless the legal form of the company entails direct and personal liability of the shareholders (e.g. partnerships) or if the shareholders undertake personal liability (e.g. parent company guarantee).

Please confirm that the shareholders of an applying SPV established as a limited liability company (A/S or ApS) prior to the application date will only be obliged to assume joint and several liability insofar as the SPV relies on such shareholder(s) in order to meet the minimum requirements regarding technical and financial ability (the SPV will not necessarily rely on all of its shareholders).”

A: As stated in the the executive presentation on “Joint and several liability – New offshore wind tenders in Denmark – a general, non-exhaustive overview”, page 2, where the winning tenderer is a not yet established company (SPV), the founding companies will be required to undertake joint and several liability with the tenderer.

Whereas a SPV (or similar) is established prior to prequalification and the SPV is the winning tenderer, the founding companies/shareholders will not be joint and several liable with the SPV unless the SPV relies on the financial or technical capacities of such founding companies/shareholders, cf. page 9 of the PQQ and contract notice section III.1.2(J).

Q (15.09.2015) Section IV of the Kriegers Flak PQQ document indicates the possibility to change the named entity to participate in the tender process post pre-qualification. Can you provide any further guidance around this process or provide any details around when this information will become available?

A: DEA has published on the web page an executive presentation on the possibility of making any subsequent changes in the tenderer after pre-qualification and throughout the duration of the contract.

Further, the DEA has published on the web page a draft on a review clause in the concession agreement. The review clause will set out the more detailed rules on permitted changes to the concessionaire and it will be included in the preliminary tender conditions that will be published soon.

Finally, questions and answers related to the conditions for pre-qualification are currently being published on our web page. Many of these questions and answers cover the same issue.

Q (15.09.2015): We are three independent companies that are currently considering to, through a jointly owned SPV, apply for prequalification to participate in the DEAs tender for the Kriegers Flak offshore wind farm. In this context, the DEA is kindly asked to confirm that if our jointly owned SPV is prequalified to participate in the tender, it merely holds a right to submit a bid for the tender in accordance with the DEAs guidance hereto, and not a legal obligation to do so.

A: The DEA can confirm that a prequalified tenderer (a jointly owned SPV) will have the right, but not a legal obligation, to submit a tender.

Q (13.08.2015): Kriegers Flak offshore substation

1) The single-line-diagram shows 2-Windings Transformers, please confirm that all main transformers on the offshore substations will be designed as 2-winding transformer.

2) The load-tap-changer of the main transformer is indicated at the 33kV winding, please confirm the correctness of the proposed design.

A:

1) Confirmed! All three 220/33 kV, 220 MVA main transformers on the offshore substations will be designed as identical 2-winding transformers.

2) Not confirmed! The transformers are specified with these nominal values:

Rated Power: 220 MVA; Rated voltages: 32/225 kV; Voltage regulation: Approximately $\pm 10 \times 1\%$; Vector group: D11Yn.

In the technical specification Energinet.dk has deliberately chosen not to specify in details how the voltage ratio regulation of $\pm 10 \times 1\%$ is obtained. Therefore we have also not specified the location of the tap changer. But our expectation is that it will be placed at the HV neutral.

Q (13.08.2015): Consent to release of information (PQQ)

The top of page 18 of the PQQ for Kriegers Flak mentions the following:

“The applicant’s submission of application for prequalification serves, at the same time, as the applicant’s consent to the release of any and all information from any contracting entity (or the like) identified in the references, if DEA wishes to verify information provided as part of a reference”.

Please could DEA elaborate a bit on what exactly is targeted by this clause and confirm that any information released shall be subject to confidentiality and solely used for the purpose of verifying the information provided in the references. Moreover, could the DEA please confirm that any requirement to release such information always shall remain subject to confidentiality provisions with third parties contrary hereto.

A: PQQ page 18, first paragraph: The DEA reserves the right to contact the contracting entities (or the like) identified in the applicant’s references, for instance, in order to verify information in the prequalification application, cf. also the contract notice section III.1.3, litra K, sub-litra b), and litra L. Example: An applicant has in his application informed the DEA of a reference (i.e. a project) with an installed capacity of 150 MW (cf. the contract notice section III.1.3, litra K, sub-litra e). The DEA might decide to contact the said contracting entity in order to verify the project information received in the applicant’s prequalification application.

The DEA will use the information solely for the Krieger’s Flak prequalification and will treat it as confidential information according to applicable law, cf. the contract notice section VI.2, no 5.

If the last part of the question (“Moreover, could the DEA...”) isn’t answered in the text above, please re-submit that part of the question with further explanation.

Q (03.08.2015):

(i) May a CompanyX be prequalified both on its own and as part of a consortium like financial institutions may? If CompanyX and CompanyY consider to participate in a consortium, but still would want to maintain the option of going alone - in case the consortium does not manage to agree on a bidding price or agree to dissolve the consortium of other reasons – do they then have to prequalify both as a consortium and as a potential stand-alone bidder?

(ii) Is it possible to engage further partners after contract award and concession,

For instance: get an equally well qualified technical investor as partner

For instance: get a technical partner who is also seconding people into the project and is investor in a SPV Kriegers Flak Offshore Wind.

(iii) If CompanyX partner up with another Company Y which is also prequalified in its own right after the prequalification deadline, may we then enter into a consortium (JV or similar) and participate together in the bid:

a) commonly under the CompanyX hat

b) under a common prequalified entity

c) under the entity of Company Y?

(iv) How should we understand the limitation of number of prequalified entities? If a company is applying on a stand-alone basis as well as part of a consortium, how will that be treated?

(v) How may the recent ruling in the Danish court regarding change of consortium after tender award, impact the Kriegers Flak process? May the number 10 be increased, given the court rule?

A: (i) Yes, a company may apply for prequalification both on its own and as a member of a consortium. A company has to (also) apply for prequalification on its own if it wants the option to participate as a stand-alone tenderer. Reference is made to the contract notice section III.1.1., litra c.

(ii) It is the intention of the DEA to include a review clause in the concession contract which will inter alia allow for the addition of a new partner after contract signing.

(iii) Identity between the prequalified entity and the entity submitting the final bid is generally required. Company X and Company Y will therefore need to team up prior to the prequalification deadline in order to bid as a consortium.

(iv) If a company applies as a stand-alone tenderer as well as member of a consortium it will count as two entities applying.

(v) Whether a change is permissible after contract signing will always depend on a specific assessment on a case by case basis. The maximum number of prequalified entities in the Kriegers Flak Process will not be increased.

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 (11.04.2014): The experience in O&M Many companies are now handling their assets through a SPV for each project. Typically then the SPV has pro forma and maybe de facto responsibility for the O&M (maybe even for the development) whereas the owner company/companies are actually seconding their employees into the SPVs for a proper setup and then being in the background for instance with the CEO of the company or on the board in addition to the seconded personnel and supervising the SPV for them to be independent. In particular for operation and maintenance it is for international businesses important to create local work on site and also have local employees for a long and stable workforce, that would then only for a short period be people from the parent company. The parent company would then use their experience in O&M to contribute to a proper set-up and for recommendations when challenging operation occurs.

Would this be sufficient for the O&M experience asked for as long as a parent company is prequalified? In particular the O&M part is for any energy business a typical local company. It would be more costly and against the intention to create local work places and have a local organization to expect this to be part of the parent company.

A (11.04.2014): DEA has understood the question as an inquiry whether the technical capacity of the parent company will be sufficient or whether a declaration of support from the SPV is also required.

The technical capacity/experience is considered to follow the actual company (economic operator) where the experience is obtained, cf. QA 4/ 14-2-14 and QA 18-3-14. Thus it will only be possible to rely on the experience of the parent company (economic operator) if the technical capacity/experience is obtained by the parent company (economic

operator) or if the relevant branch(es) of activities (constituting one or more independent business(es)) has/have been transferred to the parent company. What constitutes a "relevant" branch of activities will depend on the experience in question, i.e. in this case O&M. It is not possible on the basis of the information submitted (in particular, the lack of information regarding the contractual relations between the parent company and the SPV) to decide which economic operator in the example will be relevant when it comes to technical experience.

In case of doubt, the applicant may consider to include a declaration of support from the SPV in any event.

Q: Later SPV. As already stated in the DEA Q&A section, it is recommended to announce in the questionnaire, that a SPV may be set up prior to contract, or even by preliminary bid/ final bid, but that no guarantee can be made on the prequalification in advance. But as this is the most common way to manage assets, we must expect this to be accepted. Will this be sufficient if the SPV has the financial support and resource support from the prequalified parent company?

A (11.04.2014): If the applicant is a SPV 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/ 18-3-14. If this is stated in the application, it will be determined at the evaluation of the application for prequalification if the SPV can be prequalified. As the establishment and use of a SPV in this case will not be considered a change in the composition of the applicant, it will not be necessary to obtain written approval by DEA later in the process.

However, if it is not stated in the application for prequalification that the applicant is a SPV (that is not established at the time of the deadline for requests for prequalification) or if it is stated that the applicant (one or more other economic operators) "might use" a SPV, "reserves the right" to use a SPV or the like, the use of a SPV will be considered a change in the composition of an applicant and will thus require a prior written approval by DEA. Please note that written approval will not be withheld without just cause.

Q: In relation to question set C: C3 i it is written:

"The applicant must submit documentation and information on the experience of these other economic operators on which the applicant relies"

Our company would like the DEA to elaborate on this and specify what this imply and what kind of documentation and information you will require?

A (09.04.14): Question set C in the Pre-Qualification Questionnaire concerns technical capacity. Question C3 concerns situations where the applicant relies on the technical capacity of other economic operators.

The quote in the question above is from question C3, i). The information and documentation required in C3i) is the same as the information and documentation required (and specified) in C1 (project development and management of construction) /C2 (Operation and maintenance) concerning the applicant's technical capacity.

As it follows from question C3, ii) in situations where the applicant relies on the technical capacity of other economic operators, the applicant must document that the applicant can rely on the capacities of these other economic operators in this respect. This documentation can be provided using form no. 4 (project development and management of construction)/no. 5 (Operation and maintenance)."

Q: The experience in O&M

Many companies are now handling their assets through a SPV for each project. Typically then the SPV has pro forma and maybe de facto responsibility for the O&M (maybe even for the development) whereas the owner company/companies are actually seconding their employees into the SPVs for a proper setup and then being in the background for instance with the CEO of the company or on the board in addition to the seconded personnel and supervising the SPV for them to be independent. In particular for operation and maintenance it is for international businesses important to create local work on site and also have local employees for a long and stable workforce, that would then only for a short period be people from the parent company. The parent company would then use their experience in O&M to contribute to a proper set-up and for recommendations when challenging operation occurs.

Would this be sufficient for the O&M experience asked for as long as a parent company is prequalified? In particular the O&M part is for any energy business a typical local company. It would be more costly and against the intention to create local work places and have a local organization to expect this to be part of the parent company.

A (09.04.14): DEA has understood the question as an inquiry whether the technical capacity of the parent company will be sufficient or whether a declaration of support from the SPV is also required.

The technical capacity/experience is considered to follow the actual company (economic operator) where the experience is obtained, cf. QA 4/ 14-2-14 and QA 18-3-14. Thus it will only be possible to rely on the experience of the parent company (economic operator) if the technical capacity/experience is obtained by the parent company (economic operator) or if the relevant branch(es) of activities (constituting one or more independent business(es)) has/have been transferred to the parent company. What constitutes a "relevant" branch of activities will depend on the experience in question, i.e. in this case O&M. It is not possible on the basis of the information submitted (in particular, the lack of information regarding the contractual relations between the parent company and the SPV) to decide which economic operator in the example will be relevant when it comes to technical experience.

In case of doubt, the applicant may consider to include a declaration of support from the SPV in any event.

Q: Later SPV. As already stated in the DEA Q&A section, it is recommended to announce in the questionnaire, that a SPV may be set up prior to contract, or even by preliminary bid/ final bid, but that no guarantee can be made on the prequalification in advance. But as this is the most common way to manage assets, we must expect this to be accepted. Will this be sufficient if the SPV has the financial support and resource support from the prequalified parent company?

A (09.04.014): If the applicant is a SPV 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/ 18-3-14. If this is stated in the application, it will be determined at the evaluation of the application for prequalification if the SPV can be prequalified. As the establishment and use of a SPV in this case will not be considered a change in the composition of the applicant, it will not be necessary to obtain written approval by DEA later in the process.

However, if it is not stated in the application for prequalification that the applicant is a SPV (that is not established at the time of the deadline for requests for prequalification) or if it is stated that the applicant (one or more other economic operators) "might use" a SPV, "reserves the right" to use a SPV or the like, the use of a SPV will be considered a change in the composition of an applicant and will thus require a prior written approval by DEA. Please note that written approval will not be withheld without just cause.

Q: A company not being in a consortium and having sufficient resources, does it need to fill in the Forms 1, 3, 4, 5, 6 for the prequalification?

A (08.04.2014): No

The Pre-Qualification Questionnaire contains 6 forms that may be used when applying for prequalification. Out of these 6 forms it will be sufficient to submit only form 2 if following conditions both are met:

- 1) The applicant is not a consortium, Joint Venture or the like (i.e. the applicant is one economic operator/one company).
- 2) The applicant does not rely on the technical capacity and/or financial and economic capacity of other economic operators.

As both conditions are met in the example, the applicant does not need to fill in the Forms 1, 3, 4, 5, 6 for the prequalification

Please note that other documents providing the same information as form 2 may be used as well, if the applicant so chooses.

Q: There is only signature fields for the Forms, who should sign these? Does that have to be a person with procura (signing rights) for the company, or only so, if the financing and the resources are dependent on other companies?

A (08.04.2014): The signatures must be provided by persons authorised to represent the company (economic operator) in the specific context. Such persons do not have to have general authority to bind the company.

Please note that the Forms 3-6 must be signed by the supporting companies (economic operators) and not the applicant.

Q: Should the company representative be a person with procura in the company (In many companies that is only a few from accounting, the CEO and the Corporate Executive Committee) or could it be a person responsible for the quality of the technical experience (typically a VP within the area) or even the Project manager?

A (08.04.2014): The applicant representative (in the Pre-Qualification Questionnaire, question A2) should be a person authorised to represent the applicant. This person does not have to have general authority to bind the applicant.

Q: We cannot find any signature field on the application itself, that is the document with the various questions to be answered. What would you suggest is sufficient, that the accompanying letter is signed either by a person with procura (signature rights)/ a person responsible for the technical experience or the Project manager?

A (08.04.2014): DEA expects that a (short) accompanying letter will be sent along with the filled in Pre-Qualification Questionnaire. The signature on the application/the accompanying letter must be provided by a person authorised to represent the applicant in the specific context.

In regards to question set B, B1 and B2

Q: Do ENS accept that a statement based on the applicants statutory annual report according to ÅRL comply with IFRS?

Q: Will the applicant become disqualified if only the annual report of the economic operator on which the applicant relies comply with IFRS and includes all the B2 a)-e) mentioned parts?

A (04.04.2014): A correction to the Tender Notice has been submitted to TED (as well as published on our homepage)

The correction concerns (I) section II.1.2, lit. G (II) and section VI.2, no. 10 of the Contract Notice as further explained in the following:

I. DEA will remove the requirement that the required financial information shall be in accordance with IFRS. The reason is that DEA has examined the possibility, of an applicant that does not submit annual reports in accordance with IFRS, to get a statement regarding the required financial information in accordance with IFRS. It is the view of DEA that while this is possible, it will entail quite substantial costs for the applicants that do not submit annual reports in accordance with IFRS. As a consequence, the "cash flow statement" is also removed from the list in the Pre-Qualification Questionnaire, question B.2, regarding financial information which the applicant must provide along with the full annual reports.

Thus, it is not a requirement that the required financial information shall be in accordance with IFRS.

II. Furthermore, the wording of section VI.2, no. 10 regarding guarantees etc. will be changed. The terminology "compliance bond" will be changed to "penalty for defective performance". It will also be clarified that this penalty is applicable only until connection of the first wind turbine to grid (and not for the entire construction period). Finally, it will be added that in order to ensure the obligation to decommission the wind farm, the tender documents will include a decommissioning guarantee. The terms – including the exact amount - will be stated in the tender documents along with other guarantees, if any.

Q) The contract notice indicates that a minimal requirement is “The applicant must have at least one reference within project development and management of construction regarding an offshore wind farm of minimum 100 MW installed capacity, including all the key areas mentioned in letter L1, g); the reference must concern a project where construction is completed...”. Given this, can you please clarify:

a) Can the completion requirement refer to mechanical installation of at least 100MW capacity, if for example the reference is to a project larger than 100MW which is not yet fully installed (but of which more than 100MW has been installed), or if the reference is to a project which is not yet operational because of grid connection issues which are not the responsibility of the applicant?

b) Regardless of how completion is defined, is there a date by which the completion must be effected in order to meet this requirement? For example, is it possible for the reference to be to completion of capacity that will occur after the deadline for pre-qualification submissions, but before acceptance of qualified bidders?

A (03.04.2014): a) The contract notice states that in order to be considered for prequalification the applicant must have at least one reference within project development and management of construction regarding an offshore wind farm of minimum 100 MW installed capacity, including all the key areas mentioned in letter L1, g); the reference must concern a project where construction is completed. See also contract notice section VI.2, no. 7, and the Pre-Qualification Questionnaire, section II, no. 8.

DEA can confirm that this minimum requirement can be met by referring to a project where the installment of turbines with a minimum capacity of 100 MW has been completed, but where not all turbines reflecting the full capacity of the offshore wind farm have been installed before the deadline for pre-qualification. Furthermore, it is not a requirement that the 100 MW installed are connected to the grid at the time of the deadline for pre-qualification.

b) Only in regard to the Operation and maintenance ("O&M") of an offshore wind farm of more than 25 MW installed capacity it is allowed to refer to a signed contract where the performance of the O&M will be commenced after the deadline for pre-qualification, but no later than 1 July 2015. See also contract notice section VI.2, point 7, and the Pre-Qualification Questionnaire, section II, point 9.

In regard to project development and management of construction the completion must be effected before the deadline for requests for prequalification.

Q: As a follow up to the below question we can of course submit financial information for 2010 and 2011 from that larger business unit that the applicant was a part of until 2011.

A (03.04.2014): For the application for prequalification only financial documentation and information regarding the following economic operators is relevant:

- The applicant (or if more than one economic operator submits an application for prequalification (e.g. a consortium, a joint venture) all the participating parties/members of the applicant)
- Economic operators on whose financial capacity the applicant relies.

Reference is made to the Contract Notice section IV.2.2 and the Pre-Qualification Questionnaire, questions B1-B7 and section II.5-7, and form 2 (appendix to the Pre-Qualification Questionnaire).

Q: We would also like to ask how to interpret the questions B1, B2, B3, B6 & B7 in when the applicant is relying on an economic operator (mother company). Will it be sufficient to answer these with respect to the economic operator which the applicant relies on or shall also financial information on the applicant be submitted for B1, B2, B3 B6 & B7?

A (03.04.2014): It will not be sufficient to submit the financial documentation and information regarding the economic operator on whose financial and economic capacity the applicant relies. Financial documentation and information

regarding the applicant (or if more than one economic operator submits an application for prequalification (e.g. a consortium, a joint venture) all the participating parties/members of the applicant) must also be submitted.

Q: In relation to question B1 & B2, you are asked to enclose full financial information for each of the latest 3 financial years. What if the applicant was a part of another business unit until 2011? This means that the applicant only can provide separate financial information for 2012 and 2013 (expected completed in April 2014). Thus, it will only be possible to submit financial information for 2012 for the Pre-qualification and subsequently submit the financial information for 2013 when completed.

A (03.04.2014): The applicant must submit financial documentation and information as required in the Contract Notice, section III.1.2.- letter E, F and G (i.e. statements of overall turnover and equity ratio, full annual reports including audited accounts and - if relevant - information on long term debt rating). The required financial documentation and information is further described in the Contract Notice in the mentioned sections and in the Pre-Qualification Questionnaire, questions B1-B7 and section II.5-7, and form 2 (appendix to the Pre-Qualification Questionnaire). The applicant must submit said financial documentation and information regarding the applicant. If more than one economic operator submits an application for prequalification (e.g. a consortium, a joint venture) all the participating parties must submit their own documentation and information.

Furthermore if the applicant relies on the economic and financial capacity of other economic operators (e.g. a partner, a parent company, founding companies/future owners, or one or more affiliated companies), the applicant must submit documentation and information of the other economic operators. In this case the applicant must prove that the applicant has at its disposal the necessary resources, for instance by providing documentation that the applicant can rely on the capacities of the other economic operators in this respect (form 3 - attached as an appendix to the Pre-Qualification Questionnaire- can be used for this purpose).

The deadline for the submission of applications for prequalification is 23 April 2014 at 13:00 as stated in the Contract Notice section IV.2.2. Full annual reports completed and submitted to DEA after this deadline will not be taken into consideration.

Please note ex 2 in the Pre-Qualification Questionnaire in regard to the handling of economic operators where documentation and information on the overall turnover for each of the 3 latest financial years is not available.

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.

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.

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).

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

Q: Provided that criteria stated in the contract notice re 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.

Q: We have created companies specifically for the Danish tender projects. Since they are a new companies they will not fulfill either the financial nor the technical requirements. Is it feasible to apply for prequalification as this new companies, supported from a parent and sister company that does fulfill the requirements (financial , proof of experience, etc.)?

A (04.02.2014): An applicant can rely on the technical capacity of other companies, etc. (economic operators). An applicant can also rely on the financial capacity of other companies, etc. (economic operators) in terms of overall turnover but not in terms of the two alternative requirements: equity ratio or long term debt rating. If the applicant is a company that is not established at the time of the deadline for requests for prequalification, the founding companies/future owners must meet the financial minimum requirements. Reference is made to the Contract Notice section II.1.2), letter K.

Q: It is said to provide a maximum of 5 example of projects where we have development and construction experience from. What would be the minimum? Would one be sufficient to guarantee prequalification if all other requirements is met?

A (04.02.2014): Regarding project development and management of construction, applicants must submit minimum one reference that meets the criteria. Additional references can be enclosed and will be taken into account if more than 10 applicants meet both the financial and technical minimum requirements. Applicants are asked not to enclose more than five references in total.

Q: How do you judge construction experience? Is it the company that owns/constructs the project or is it the people within the company.

A (04.02.2014): A reference within project development and management of construction is a reference from the company, etc. (economic operator), that has entered into a contract regarding the said tasks.

Updated March 17th 2016.