

Danish Kriegers Flak

Update

The Danish Energy Agency issued the Construction Licence for Danish Kriegers Flak on the 3rd February 2020



Photo: Global Marine Group/Osbit.

Construction work to start at the bottom in 2020

First up in 2020 is preparing the Kriegers Flak seabed to accept the cables. Global Marine Group is using the newly developed Subsea Pre-Lay Plough, which enables boulder clearance and pre-trenching up to 1,7m in a single run and backfilling of the trenches. The plough has been developed in collaboration with technology company Osbit.

Kriegers Flak is well under way



Kriegers Flak Project Director Ian Bremner.

By Ian Bremner

Construction works on the DKF project are currently scheduled to begin in February 2020. A key part of the preparations for this phase is the manufacture of the main component parts which is in full swing. To be more specific, by November 2019 the project had completed the manufacture of the monopiles at EEW in Rostock, which are part of the foundation structure, pending coating works. The second component part of the foundation structure, the transition piece, is being manufactured in Aalborg by Bladt Industries. Completion of the first transition piece is scheduled for February 2020, with all works scheduled for completion next summer.

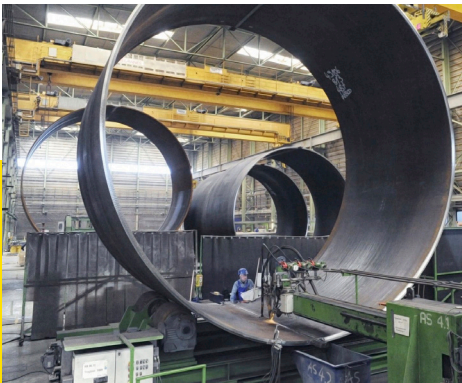
The cables required to connect the turbines have just begun to be manufactured by JDR Cable Systems, and they are also scheduled for completion in the summer of 2020.

Of course, these component parts must be installed, and this leads to our installation schedule. First up will be Global Marine, mobilising in February 2020 to prepare the seabed to accept the cables. Next in line comes our civil installation contractor Van Oord who are scheduled to start foundation works in May 2020. The project is targeting completion of the installation works for foundations and cables in 2020 to be ready for the wind turbine installation process to begin in early 2021.

In order to facilitate construction works, Vattenfall will establish temporary construction facilities in Rødvig. To be ready for the start of operations and maintenance of DKF in early 2021, Vattenfall plan to construct an operations building in the harbour of Klintholm.



Aalborg based Bladt Industries is manufacturing the transition pieces for the 72 wind turbines.



Rostock based company EEW finalized the production of the foundations by the end of 2019.

At your service: Kriegers Flak Service Group



Chairman of Kriegers Flak Service Group, CEO Christina Jensen of the shipping company Krinak A/S.

Sixty-eight companies covering four municipalities have joined forces to form a unique partnership in order to provide services to Vattenfall and its subcontractors during the construction of Kriegers Flak offshore wind farm. Kriegers Flak Service Group (KFSG) comprises companies from the municipalities of Stevns, Fakse, Guldborgsund and Vordingborg and the chairman of KFSG, CEO Christina Jensen, sums up the characteristics of the partnership using a single word – fantastic.

“The fact that even competing companies can join forces to offer the required services is extremely positive. They stand united in their efforts to provide local solutions; if we don’t do this, some external player is bound to come and snatch all the jobs,” says Christina Jensen, who besides the responsibilities as chairman is also CEO of the shipping company Krinak A/S with offices in Nakskov and Vordingborg. The 68 KFSG members count blacksmiths, electricians, master painters and companies in the transport, catering, clothing and accommodation industries in addition to drone inspection and other lines of business. Since Vattenfall successfully won the tender, Christina Jensen notes that the service group has been in close communication with the wind farm operator, who gives high praise to the network covering the four municipalities. For the benefit of Vattenfall and its subcontractors, KFSG has set up One-Point-of-Contact centres open for contact 24/7/365.

Point of departure for the wind turbines

The Port of Rønne was right in its bold decision to expand the harbour by 150,000 square metres in order to be able to provide services to the offshore industry, among others. As it happens, the 72 Siemens-Gamesa wind turbines will be shipped from this harbour to Kriegers Flak in 2021. Coordinator Lone Reppien Thomsen from Offshore Center Bornholm, OCB, has high hopes for the opportunities available to Bornholm, in terms of establishment of wind farms and production of wind energy.

“We would like to play a part in all Baltic Sea projects although at this stage our primary objective is to focus on ensuring the success of the Kriegers Flak project and ship the 72 wind turbines delivered by Siemens-Gamesa to the site from Rønne,” says Lone Reppien Thomsen.



Rønne harbour has been expanded by an additional 150,000 square metres for use by Offshore Center Bornholm. The harbour will be the point of departure for the wind turbines for Kriegers Flak offshore wind farm.

Photo: OCB.

Kriegers Flak is seen as the start of a new industry adventure for Møn



The Vattenfall service building will be ready for use in 2020 and will be located in the area detailed in the top right of the picture.

As early as a decade ago, the Construction and Environment Initiative set up by the local bank, Møns Bank, envisaged the opportunities that would be open to local commerce and industry, to citizens and to the local authority as a result of the Kriegers Flak project. Together with the municipality, they developed the future plans that Klintholm harbour was to serve as a service harbour, and when Vattenfall was awarded the contract for the offshore wind farm, the parties soon joined forces.

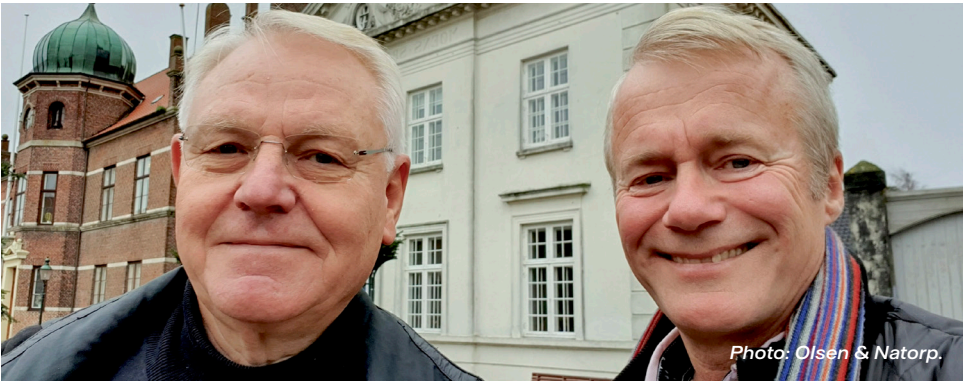
Today, there is an abundance of potential offshore wind turbine projects in the Baltic Sea. But as a member of the Initiatives, Nils Natorp, says: “The primary aim is to ensure that Vattenfall will be happy to have chosen Klintholm as its service harbour because we enjoy an excellent relationship with the company,” says Natorp, also managing director of GeoCenter Møns Klint science centre and chairman of Vordingborg tourist board.

A local boost

Former bank manager of Møns Bank, Hans K. Olsen, was one of the founders of the Initiative in 1983.

“The establishment of Kriegers Flak and any other plans for new offshore wind farm is like a fairy tale which will lead to new jobs and with this ensure continued progress instead of the reverse,” says Hans K. Olsen. Taking us down memory lane, he recalls that for almost 100 years hundreds of people found employment in the sugar industry on Møn until the factory in Lendemarke closed down in 1989. This set off the island's industrial decline which the Initiative and Møns Bank have actively sought to combat over the years.

“Now we might be looking at perhaps 500-700 new jobs, higher tax revenues and more development for our local community,” says Hans K. Olsen.



Hans K. Olsen (left) and Nils Natorp from the Construction and Environment Initiative expects the municipality to benefit hugely from Klintholm harbour's status as service harbour.

New jobs and educational programmes and investments in new infrastructure



Photo: Vordingborg Municipality.

Vordingborg mayor Mikael Smed expresses considerable satisfaction that Vattenfall has really paid attention to what was being communicated during the negotiations to construct a service building at Klintholm harbour.

Mikael Smed, the mayor of Vordingborg Municipality hopes that the construction of the new Kriegers Flak offshore wind farm will bring new jobs, business and education to the region. The local government and municipalities on Southern Zealand and islands can now open up new areas of work to the local community that support the development of the offshore wind industry in the area.

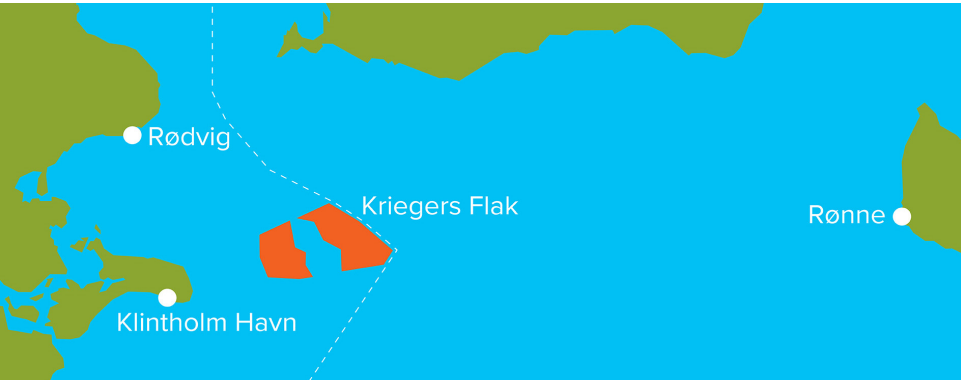
“A service building is being constructed at the Klintholm harbour by Vattenfall, who have been thoroughly engaged throughout the negotiations. The new building will bring workers to the Klintholm area revitalising the site.” explains Mikael Smed.

Investments in infrastructure

This is just the beginning as the mayor envisages Klintholm as a service provider to the off-shore wind industry for many years to come. As this new chapter begins, areas like Eastern Møn where jobs have been scarce in recent years will benefit hugely from the jobs created.

“A few German operators are also interested in working as service providers from our harbour. An invitation to tender for a new government-owned offshore wind farm is likely to be issued, with plans to construct a wind farm at Kadet Banke. Now that some developers have chosen to work with us, others may follow if we are able to keep up with demand, and provide the space needed.

New opportunities also bring new challenges as mentioned by mayor Mikael Smed, “Infrastructure is one of the challenges Klintholm harbour faces. At present only one single road leads to the harbour, which we will need to do something about. Also the harbour will need to look at new development, for example a new quay.”



In order to facilitate construction works, Vattenfall will establish temporary construction facilities in Rødvig. To be ready for the start of operations and maintenance of DKF in early 2021, Vattenfall plan to construct an operations building in the harbour of Klintholm. The 72 turbines will be shipped to the Offshore Center Bornholm in Rønne and from there to the wind farm site.

A large step towards a fossil-free future



Photo: Vattenfall.

Country Manager for Denmark, Jacob Nørgaard Andersen, emphasizes that within a few years Vattenfall will be making a substantial contribution to a sustainable future. Working towards fulfilment of the objectives of the world's first Climate Act, following its adoption by the Danish Parliament at the end of 2019.

By Jacob Nørgaard Andersen, Country Manager for Denmark.

Kriegers Flak in the Baltic Sea is set to have a capacity of about 604 MW with 72 wind turbines, which when constructed will become the largest offshore wind farm in Denmark so far. Thereby Vattenfall takes giant leaps into the fossil-free future to protect our children and future generations. We aim for climate neutrality when it comes to Vattenfall's own operations, those of our suppliers and also our customers. This is called our CO₂ Roadmap.

Ambitious roadmap

We inaugurated the Horns Rev 3 offshore wind farm in the North Sea in the summer of 2019. The capacity of 407 MW means HR3 can cover the annual consumption of electricity of 425,000 Danish households and Kriegers Flak can provide electricity to a further 600,000 households. In addition two other offshore wind farms are in our pipeline, Vesterhav Syd and Vesterhav Nord, with an overall capacity of 350 MW, equivalent to the electricity consumption of 380,000 households.

Assisting the world's first Climate Act

These four offshore wind farms will be providing electricity equivalent to the annual consumption of more than 1.4 million Danish households. As a result, Vattenfall will be making a substantial contribution to a sustainable future and not least to the fulfilment of Denmark's first Climate Act (passed by Danish Parliament at the end of 2019), which means that Denmark will reduce its gas emissions that relate to climate change by 70 percent within 2030.

Kriegers Flak Timetable

2012-2014: The Danish Energy Agency drafts an Environmental Impact Assessment (EIA).

2016: Vattenfall is granted the concession for Kriegers Flak offshore wind farm with the lowest offshore power price so far in Denmark of only €0.05 per kW.

2017: Siemens Gamesa wins the tender to supply 72 wind turbines for the Kriegers Flak. Each turbine has an effect of 8.4 MW.

2017-2018: Foundations and two substations are installed by Energinet at Kriegers Flak in the Baltic Sea. The substations will eventually transform the electricity power from the turbines to grid standard and connect the Danish and German grids via the German Baltic 1 and 2 wind farms.

2018: The preferred bidders for the seven remaining tender packages were selected in the autumn, and all the contracts signed by the end of 2018

2019: Monopiles, transition pieces and cables for Kriegers Flak are produced, and scour protection laid out on the seabed at every wind turbine position.

2020: Foundations and cables are installed.

2021: The 72 Siemens Gamesa wind turbines will be installed and put into operation in phases. Connection to the electricity grid is expected to be completed before the end of the year.