

Offshore Wind Ports Platform Meeting

Monday 26 September 2022, 10.00 – 15.00

Niedersachsen Port of Cuxhaven

Ports updates

- **Port of Amsterdam:**

- Funding: Heavy up-front investments are required which they need the Dutch government to step in. At this moment the government do not feel the sense of urgency that port capacity is a topic.

Operators support the statement offline, but they are afraid to support this message openly, due to tender-processes which they are in.

- Port space: A port development of 15 hectares with 580m quay side is perceived 'too-small' by the market. Whereas every development >10 hectares should be embraced by the market since sufficient port capacity will become more and more scarce. Solution can be in joined-port-industry-projects. Ports working together in certain projects so the projects can be continued as good as possible.

- **Port of Galway:** Ireland is due to deliver 7 GW of offshore wind energy by the end of 2030, however only one port on the island - Belfast Harbour - is suitable for building offshore wind farms.

The main challenge for ports is clarity on timescales. This would help developers and give confidence to investors looking at the detailed infrastructure plans brought forward by ports.

- **Port of Roenne:** The port is currently serving Parkwind's Arcadis Ost 1 offshore wind farm, located northeast of the German island of Rügen, as the project's storage and marshalling port.

The Port has recently signed a contract for the pre-assembly and installation of 50 turbines for the Baltic Eagle project situated in German waters 40 km west of Bornholm in the Baltic Sea.

The Port has already done some investments to take on OWE-projects, but they don't have the space to meet the increased interest that will be needed. Therefore, they are now starting a futureproofing of the port, so that within a few years they will be able to handle more and larger wind turbine projects.

- **Port of Bilbao:** The Port facilities are currently home to two companies dedicated exclusively to the traffic of wind power components: Haizea Wind, a manufacturer of wind towers, monopile foundations or primary steel for transition pieces, and Siemens Gamesa, which has its export hub in Bilbao. Both are located in the Port expansion area.

In addition, there are plans for Haizea Wind to expand its premises, with surface areas and deadlines still to be determined. Navacel also has plant facilities in the Bilbao Estuary which enable it to manufacture these components and subsequently export them.

At the same time, the port has other operators, such as stevedoring companies, with dedicated specific space to this type of traffic.

Like other ports, the main challenge for the Port of Bilbao is to provide the space for all the industries that need it. Therefore, they believe it is key to also work on improving the infrastructure of land corridors for transporting oversized and overweight wind components.

- **Port of Nantes Saint-Nazaire:** The Port hosted the installation of the 80 GE Haliade 150-6 MW wind turbines at the 480 MW Saint-Nazaire wind farm site. The construction of the wind farm which began in mid-April was completed well ahead of schedule, by the beginning of September instead of December 2022. This is the first commercial-scale wind farm installed in French waters.

The French transmission system operator Réseau de Transport d'Electricité (RTE) is responsible for connecting the wind turbines to the national electricity grid and will continue to work until all 80 units are installed and fully commissioned by the end of this year.

Additionally, the Port hosts three other offshore wind projects which are under construction: Fécamp (500 MW – 71 wind turbines), Courseulles-sur-Mer (450 MW – 64 wind turbines) and Port-Saint-Louis-du-Rhône. Large areas are required for the laydown of wind power components and for the maintenance of these equipment, therefore their main challenge like other ports is space and how to use it when there is no project in development. Today they are delivering what it was in the pipeline 5 years ago.

- **Ports of Niedersachsen Cuxhaven:** The Port is host of the Siemens Gamesa nacelle factory which has been converted and upgraded for the new product generation. Serial production has started, and a total of 140 turbines from Cuxhaven will be installed at the Hollandse Kust Zuid offshore wind park in The Netherlands for customer Vattenfall, making it the largest in the world at the time of commissioning with a capacity of 1,500 MW. It will also be the world's first subsidy-free offshore wind power plant.

Cuxhaven has also started to work on hydrogen, aiming to establish a hydrogen economy as a central component of developing the city's objective of becoming a climate adapted and carbon-neutral city by 2030.

The Port also hosts Nordmark, a Danish high-tech company which specializes in the field of high precision machining of large scale XXL components for the wind industry.

- **Port of Tenerife:** The Port continues to host the development of the 50MW Granadilla offshore wind farm, the first in Spanish port waters.

The bulk of the electricity generated will be used for self-consumption by the port facilities and its concessionaires, within the framework of the Port Authority of Tenerife's commitment to decarbonising its operations.

The project has already commenced application for the administrative concession of the area of water in the port area from the Tenerife Port Authority, having completed the tender process and moved into the comments phase, which will be analysed in detail. The next step will be to start the characterisation of the offshore wind farm through environmental campaigns and the related environmental impact assessment.

The Port also host other initiatives such as the installation of floating photovoltaic in the southern mouth of the port Granadilla, and the use of the new dock as an experiment to obtain energy from the waves.

- **Port of Den Helder:** The Port has been an important hub for the offshore energy industry for over 40 years and has a vast network of more than 200 supply companies. In the new energy environment, more activities are coming to the Port, who is then choosing the activities that are closer to their profile. For these new activities there are several challenges:
 - **Port space:** for PoDH to deliver O&M activities for the offshore wind energy, the port needs at least 4hectares of project space, including 300m quay. With the new ambitions more space will be necessary, which can only be resolved with funding and a clear pipeline of projects.
 - **Sustainability:** legislation is slowing down innovation and construction of new infrastructure related to green bunkering fuels. Grid congestion causes delay in construction of shore power facilities.
 - **Circular economy:** Ports are part of the circular economy in receiving decommissioned offshore assets. As long as these goods are regarded as waste, legislation prevents the goods from being reused as raw materials. Ports are bound by this legislation.
- **Port of Aalborg:** Port of Aalborg has invested significantly in the company's east Aalborg business park over the years. Among the investments is a new 140,000 square metre large business area named the Anchor, which is the location of Netic, a new data centre that is designed to run solely on wind power.

The Port is also working on a new Power-to-X plant that will produce green e-methanol for use in the transport sector. The new electrolysis plant with a capacity of 120 MW and an associated e-methanol plant will need a 25-hectare area which will be located at the Eastern side of the Port.

Additionally, the Port together with the Aalborg University and other stakeholders are cooperating to attract qualified labour force and make Northern Denmark an even more attractive place for bigger companies.

For Port of Aalborg finding the right work force together with storage capacity are the most crucial challenges they are facing.

- **Lindø Port of Odense:** The Port has plans to invest between DKK 4 and 5 billion to stablish what it would be the country's largest dry port intended to accommodate the upcoming offshore wind sector.

The establishment of the dry port will see the Port of Odense move the warehousing and logistics part away from the port area to a new 500,000 sq m hub located close to the motorway and the railway.

- **Port of Grenaa:** The Port plans to become more involved in the development of offshore wind farms with its two new operation and maintenance (O&M) facilities which will be built as part of the Port's infrastructure expansion.

The Port highlights the importance of keeping track of the developers and the pipeline of wind farms projects in the different sea basins which will need the use of port facilities.

- **Port of Normandy:** The Port has made investments in 2022 to strengthen the infrastructure of the port of Cherbourg:
 - Partial reinforcement of the quayside at 27 and 50 T/m² to allow the assembly of the quayside tower sections
 - Upgrading 15 ha of ground up to a bearing capacity of 15 T/m²
 - Finalization of the outstream maintenance base for the Courseulles Offshore Wind Farm (OWF) in early november.

Other activities:

- St Brieuc OWF: Van Oord occupies 5 ha of ground in Cherbourg as "Marshalling Port" for the St Brieuc OWF. Handling and storage of pin piles and grout (installation of silos alongside the quay). Occupation of the ground planned until end of 2023.
 - Fécamp OWF: Boskalis stores quarry materials (approximately 250,000 tonnes) in Cherbourg for the foundation anti-scour system. Occupation of 4 ha planned until the end of 2022. In 2023, Cherbourg will be the assembly hub for the 71 wind turbines of the Fécamp wind farm (15 ha until March 2024).
 - Courseulles OWF : SAIPEM has chosen the port of Cherbourg for the reception, storage and loading of quarry materials for the foundations of the Courseulles OWF (7 ha until December 2024).
 - Asso.subsea renting ground in order to store cable protection on port of Cherbourg for various OWFs in the Channel.
 - In order to plan the occupation of the open spaces in Cherbourg from 2024 to 2027, Ports of Normandy are going to launch a Call for Expression of Interest (CEI) aiming at listing the needs in port spaces for offshore wind and tidal players.
- **Port of A Coruña:** The Port continues with the development of the "A Coruña Green Port" Project. Currently, the three wind turbines that the company Inditex is going to install at the outer port are under administrative procedure. The project will produce 18 MW which will supply green energy to their headquarters located very close to the outer port. The surplus of energy would be resumed through a shared self-consumption system with surpluses, to provide green energy to the port and decarbonize their activities. There will be also a hydrogenate with a 1MW capacity, to supply trucks and buses with green energy. The project has been presented to the European Funds (Next Generation), and it is promoted by Enerfin (from Elecnor group).

Recently there has also been announced a new wind energy platform for testing prototypes for offshore wind, 10 km far away from the port, in which Port of A Coruña is collaborating with the National Electric company (REE) as well as with the regional government of Xunta de Galicia. This platform will also include the evacuation cable, with a capacity of installing 3 prototypes.

On the other hand, the Port of A Coruña is receiving different interests from companies looking for the development of different projects related to the offshore wind sector, to provide components (mainly foundations), to France, Scotland and Ireland. For this purpose, the port has a total area of 100 Ha to satisfy the needs of the industry.

- **Port Atlantique La Rochelle:** The port had a successful experience as Logistics Hub in the construction of the first French offshore wind farm in Saint-Nazaire. Port Atlantique La

Rochelle and its operators aim to position themselves as experts and long-term players in the marine renewable energy sector.

In order to provide an effective response to the needs of infrastructure, expertise and flexibility to the prerequisites of floating wind projects, the Port has joined forces with the Atlantic coast ports of Bordeaux, Bayonne and Rochefort-Tonnay-Charente. These 4 ports emphasize their complementarity skills in the logistics chain due to their proximity and together can provide up to 90 hectares of dedicated surface. Supported by the Nouvelle-Aquitaine Regional Council and in collaboration with the Aquitaine Blue Energies cluster, this synergy is starting from now with a response to the call for expressions of interest launched by the French Government on future projects (Groix-Belle-île and Oléron).