

Environmental and Social Data Sheet

Overview

Project Name: *ARCADIS OST I OFFSHORE WIND FARM*
Project Number: *2019-0882*
Country: *GERMANY*
Project Description: *The Project concerns a 257 MW offshore wind farm, comprising 27 wind turbines with a unit capacity of 9.5 MW located in German territorial waters. In addition, the Project comprises the inter-array cabling at 35 kV level and a 35/220 kV offshore substation. It will apply monopile foundations for both turbines and offshore substation.*

EIA required: yes

Project included in Carbon Footprint Exercise: yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

Environmental Assessment

The Arkadis Ost I Offshore Wind Farm ("the Project") comprises the construction and operation of an offshore wind farm with a capacity of 257 MW. The Project lies in the Baltic Sea, within 12 nautical miles northeast of the German island Rügen in Mecklenburg-Vorpommern, close to the existing offshore windfarms Wikinger and Arkona and in the direct vicinity of the planned wind farm Baltic Eagle. It is located in an area called cluster Westlich Arkonasee, which is designated as a priority marine area for wind energy in the current Spatial Development Programme of the Federal State, which came into force on 8 June 2016, supported by a Strategic Environmental Assessments (SEA).

The Project covers an area of ca. 30km². Each of the Project's 27 wind turbines has a unit capacity of 9.5 MW, a rotor diameter of 174 m and a hub height of 110 m. Turbines will be mounted on monopile foundations. The Project also includes inter-array cabling and an offshore substation.

A 5 km high voltage evacuation cable at 220 kV voltage level from the wind farm's offshore substation to the existing marine grid connection system Ostwind 2 will be implemented by the regional TSO. It is outside the scope of the Project but considered an associated infrastructure.

The Project is located outside of Natura 2000-sites. The closest distances to the closest Natura 2000 sites, Westliche Rönnebank (SAP DE-1249-301), Steilküste und Blockgründe Wittow (SAP DE-1345-301), and Erweiterung Libben, Steilküste und Blockgründe Wittow und

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Arkona (SAP DE-1346-301), are 11, 14 and 18 km, while the distances to the closest bird protection areas, Pommersche Bucht (SPA DE-1552-401) and Westliche Pommersche Bucht (SPA DE-1649-401), are over 21 km.

Wind farms and their grid infrastructure fall under Annex II of Directive 2014/52/EU amending the EIA Directive 2011/92/EU. Under German law (German Federal Emission Control Act), wind farms comprising 20 or more wind turbines are screened in for an EIA. Consequently, the Project had to undergo a full EIA process.

A first EIA for this project, including an offshore substation and internal cabling, was conducted in 2013. At that time, the project comprised 58 turbines, with 100 m hub height, 150 m rotor diameter and 6 MW capacity (i.e. 348 MW in total), on jacket foundations. Following a due process including public consultation, a permit was awarded in September 2014. The permit process is an integrated one, including the Appropriate Assessment of biodiversity, building permit, waterway rights etc. The permit contains a number of conditions and requirements for impact mitigation, most notably for bird observation during operation and reducing piling noise during installation.

While the initial Permit of 2014 enabled the promoter to successfully participate in a tender process in 2018 for a commercial support for the project, following the awarded capacity and the further development of offshore wind technologies the wind farm layout has changed. The wind turbine model is changed to a larger one, the number of turbines is reduced and the foundation is changed from jacket to monopile.

After prior consultation with the authority, the promoter applied for a permit amendment and submitted relevant documents, including an updated EIA, a Flora Fauna Habitat Compatibility Assessment, a Landscape Conservation Plan and other EIA-related documents in April 2019. After an assessment of completeness, the permit amendment application documents were made public for one month as from 20th January 2020 until 19 February 2020 and from 20 February 2020 until 19 March 2020 complaints against the permit could be filed. A public hearing took place on 11 May and the promoter expects to obtain the permit by the end of Q4 2020 with a two months appeal period.

The updated EIA assesses potential impacts of the project on biotopes, macro zoo-benthos, fish, sea birds and migratory birds, marine mammals etc. and proposes adequate mitigation measures. The documentation also includes an appropriate assessment of the project's impact on Natura 2000 sites. Cumulated impacts under consideration of neighbouring wind farms are considered.

The updated EIA concludes that the project does not have any significant environmental impacts post mitigation. The integrity of Natura 2000 sites is not significantly impacted by the project either. During construction the most relevant environmental impacts are expected to originate from modifications of the sea bed structure and from construction noise on fish fauna. During operation, most relevant environmental impacts relate to birds. Impacts during construction are mitigated by permit conditions on noise while operational impacts are mitigated by a reduced wind farm size and corridors between neighbouring windfarms.

The promoter has a very good understanding of regulatory and environmental monitoring requirements, as well as relevant experience in implementing mitigating measures during construction from its previous offshore wind farms. In light of this, the promoter's environmental capacity is considered adequate.

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Ostwind 2 is a grid development project to connect the Baltic Sea wind farms Arcadis Ost 1 and Baltic Eagle to the German extra-high voltage transmission grid. The connection to the German extra-high voltage transmission network takes place at the grid connection point in the substation Lubmin (Mecklenburg-Vorpommern).

Permits have already been granted for the Ostwind 2 project for the land route, for the 12 mile zone (12 nm zone) of Mecklenburg-Vorpommern and for a section of approx. 5 km in the Exclusive Economic Zone (EEZ). The planning approval decision according to the Seeanlagenverordnung for the Seetrasse up to the so-called bundling point in the EEZ was given to the RSO by the responsible Federal Maritime and Hydrographic Agency in August 2015 following a full EIA process including an Appropriate Assessment of the potential adverse effects on Special Areas of Conservation and Special Protection Areas under Natura2000.

EIB Carbon Footprint Exercise

The direct CO₂ emissions of an offshore wind farm are deemed negligible.

In accordance with the Bank's current Carbon Footprint methodology it is calculated that based on the avoidance of electricity generation from a combination of existing and new power plants in Germany the total relative effect of the project is a net reduction in CO₂ equivalent emissions by 623 kt CO₂e/a.

For the annual accounting purposes of the EIB Carbon Footprint, the Project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

Conclusions and Recommendations

The Project is considered acceptable for Bank financing from an environmental perspective subject to the following conditions:

- The promoter shall submit to the Bank a written confirmation from the nature conservation authority that the project has no significant impact on sites of nature conservation, (Form A or equivalent);
- Environmental permit for the Project to be issued and in force prior to financial close (with electronic copy to the Bank);
- Summary environmental monitoring reports for the Project, as to be submitted to the competent authority under permit conditions, shall be sent in copy to the Bank.