Luxembourg, 23/09/2016

Environmental and Social Data Sheet

Overview

Project Name:	Norther Offshore Wind
Project Number:	2015-0871
Country:	Belgium
Project Description:	Construction and operation of an offshore windfarm 22 km from the Belgian coast with an estimated capacity of up to 370 MW.[1]
EIA required:	yes
Project included in Carbon Footprint Exercise[2]:	yes

Environmental and Social Assessment

Environmental Assessment

By virtue of its technical characteristics this project would fall under Annex II of Directive 2011/92/EU (amended 2014/52/EU). Under Belgian law, an EIA including full public consultation is mandatory and was duly conducted in 2011. The windfarm is located in the Belgian Exclusive Economic Zone (EEZ) of the North Sea, a dedicated zone for offshore windfarms which already contains 3 operating windfarms (C-Power, Belwind, Northwind) with construction started for a further windfarm (Nobelwind). It is thus also subject to United Nations Convention on the Law of the Sea ("UNCLOS") and national regulations concerning installation activities in the sea, making an EIA mandatory under national law. This covers the offshore windfarm and export cable up until the jointing pit in Zeebrugge. In addition, the Government of Belgium launched a Strategic Environmental Assessment (SEA) in form of a Marine Spatial Plan in March 2012, approving it in March 2014. This SEA was subject to a public consultation process and took into account different usages of the Belgian North Sea EEZ, including offshore wind energy production.

The promoter's Environmental Impact Study (EIS) was completed in May 2011. Under Belgian law, the Environmental Impact Assessment (EIA) of offshore wind farms in the North Sea is performed by a department of the Royal Belgian Institute for Natural Sciences – the Management Unit of the North Sea Mathematical Models (MUMM) on the basis of its analysis of, inter alia, the EIS. MUMM, i.e. the competent authority, concluded the EIA in November 2011 with a positive opinion towards granting the environmental subject to conditions. In particular the EIA includes an Appropriate Assessment of the impacts in neighbouring Natura 2000 sites in Belgium and the Netherlands[3] (including marine protected areas, the closest of which is ca. 6 km from the project site) in the light of their respective conservation objectives, as well as proposed measures in order to mitigate these impacts. The competent authority concluded that the project would not have significant effects in regards with the integrity of these sites, if the proposed mitigating measures are duly put in place. In the context of the EIAs of the Belgian offshore windfarms, an environmental management programme was undertaken by MUMM since the implementation of the 1st offshore wind concession in the region, aiming at verifying the implementation of the identified mitigation measures

[1] The project's grid connection infrastructure and associated facilities have been appraised in the context of project ELIA – SECURITY OF SUPPLY (2013-0005`).

[2] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

[3] BEMNZ0001 (SAC, Vlaamse Banken), BEMNZ0002 (SPA, SBZ 1/ZPS 1), BEMNZ0003 (SPA, SBZ 2/ZPS 2), BEMNZ0004 (SPA, SBZ 3/ZPS 3), NL2008003 (SAC, Vlakte van de Raan) and NL4000017 (SPA/SCI, Voordelta)

concerning fauna and avifauna appropriately, as well as at improving the measures to be proposed in future projects. The annual monitoring results are publicly available, as well as a review in 2013 on learning from the past to optimise future monitoring programmes[4].

The EIS[5] and EIA evaluate potential impacts of the project on climate, soil, noise (underwater and over water), safety, benthos and fish; sea mammals; avifauna; electromagnetic fields, socio-economic impacts, visual disturbance; cultural heritage; trans-boundary impacts (for the Netherlands) and monitoring.

The EIS identifies several potential negative environmental impacts. The main project impacts, together with the proposed mitigating measures (if any) are listed below:

- Firstly, during the construction phase, the increased underwater noise may represent a risk to benthos fish and particularly sea-mammals. Moreover, increased water turbidity may also represent a significant risk to benthos and fish. A range of mitigation measures have been included in the permit, including the banning of piling activities during 1 January to 30 April (sea-mammals breeding season); acoustic deterrents and noise ramp-up procedures ("soft-start piling").
- Secondly, there is a potential collision risk for avifauna, although the uncertainty in several factors is recognised. However, the potential risk to Annex 1 protected species (Little gull, Sandwich tern or Common tern) is judged to be low, although remains a concern. In order to study further this impact, an automatic bird radar system will be installed on the offshore substation. This will allow the monitoring of diversionary behaviour of birds at the site, combined with standard monthly bird monitoring across the Belgian offshore wind zone. The licence contains conditions for stopping the turbines in the event of a large bird migration with heightened risk of bird collision.
- Finally, the export cable will cross the Special Protected Area (SBZ-3). The competent authority considered that no significant risks are associated with the cable laying activities. Inter array cables and export cables need to be buried at least 1 m deep to limit environmental impacts.

The competent authority set out a comprehensive list of mitigation measures (including those indicated above) in the environmental permit issued in January 2012, aimed at mitigating the impacts above. In regards to noise impacts, the promoter has to propose piling noise mitigation techniques to the competent authority, for its approval.

The promoter has a sound environmental management capability, a good understanding of regulatory and environmental monitoring requirements, as well as experience in the mitigating measures to be performed during construction, notably in light of its previous offshore wind experience in the same area. In light of this, the promoter's environmental capacity is considered adequate.

EIB Carbon Footprint Exercise

The direct CO_2 emission of an offshore wind farm is 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 Belgium (75% operating margin and 25% build margin) the total relative effect of the project is a net reduction in CO_2 equivalent emissions by ~593 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.

[4] See http://odnature.naturalsciences.be/winmonbe2013/report

[5] The term EIS is used to cover both the Environmental Impact Report performed by Arcadis and the assessment performed by MUMM in the MEB (Milieueffectenbeoordeling)

Conclusions and Recommendations

The EIA concluded that with adequate precautionary measures, the impacts on fauna and flora, including on local and migrating birds, marine mammals, benthos and invertebrates were considered to be acceptable. Ministerial approval for the offshore windfarm and the associated cabling was given in 2011. This includes a comprehensive set of mitigation measures and monitoring obligations in line with the recommendations contained in the EIA.

The Bank will request the promoter a copy of the piling noise mitigation techniques proposed to the competent authority for approval, as well as a copy of its approval.

With the above conditions in place, the overall environmental impact of the project is considered to be acceptable to the Bank.