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Public

Environmental and Social Data Sheet

Overview

Project Name:	*FRENCH OFFSHORE ROUND 1 - SAINT NAZAIRE & FECAMP*
Project Number:	*2015-0929*
Country:	*France*
Project Description:	*Design, build, maintain and operate two offshore windfarms: Saint-Nazaire and Fécamp – 480 MW and 500 MW, 12 km off the French coast in both cases.*

EIA required: yes

Project included in Carbon Footprint Exercise[1]: yes

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

Environmental and Social Assessment

Environmental Assessment

The project comprises the design, construction, operation and maintenance of two offshore wind farms: one of the wind farms (Saint-Nazaire, 480 MW) is located 12 km off Saint-Nazaire in the French region of Pays de la Loire; the other (Fécamp, 498 MW) is located 13 km off Fécamp in the French region of Normandy.

By virtue of their technical characteristics both wind farms would fall under Annex II of Directive 2014/52/EU amending the EIA Directive 2011/92/EU. Under French law, an EIA including public consultation is mandatory and was duly conducted in 2013, for both wind farms including their grid connection facilities and maintenance bases, as well as the gravity-based foundation (GBS) manufacturing site for Fécamp, located in Le Havre port. The grid connection facilities consist in a double-circuit 225 kV cable of ca. 61 km in length – 33 km underwater and 28 km underground (for Saint-Nazaire) and of ca. 49 km in length – 18 km underwater and 31 km underground (for Fécamp), as well as the related onshore and offshore transforming substations.

Both EIS/EIAs evaluated potential impacts of the project on climate, air and water quality, soil, noise (underwater and over water), safety, benthos and fish; sea mammals; avifauna; electromagnetic fields, socio-economic impacts, visual disturbance; cultural heritage and monitoring.

The EISs identify several potential negative environmental impacts for which they propose mitigating measures. These EISs were reviewed by the competent authorities, on the basis of which they considered that if the mitigating measures are put in place the project will not have significant environmental or social impacts. The main project impacts, together with the proposed mitigating measures are listed below:

[1] 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 CO_2-e/a absolute (gross) or 20,000 tons CO_2-e/a relative (net) – both increases and savings.

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Saint-Nazaire -

1. Increased underwater noise may represent a risk particularly for sea-mammals present at or near the wind farm site, such as marine porpoise, dolphins, seals and pilot whales. As a mitigation measure, the promoter will use acoustic deterrent devices and noise ramp-up procedures ("soft-start / ramp-up") during piling. In addition, the promoter will monitor the effectiveness of this measure during piling using buoys fitted with hydrophones deployed around the monopoles, and during construction and early operation using autonomous detectors or wide-band tethered hydrophones.
2. Avifauna living near or in the corridor of the underground grid connection could suffer from loss of habitat and potential loss of broods. To mitigate this impact, the promoter will only be allowed to perform preparatory grid connection works during summer/autumn, the most sensitive periods for the affected species (black tern, meadow pipit).
3. In addition to the above impact to avifauna during construction, in particular two bird species[2] could potentially be significantly affected by the wind farms' operation:
    a. Great black-backed gull[3] – due to the high risk of potential collisions with the wind turbines. As a mitigating measure to the potential increase in mortality, the promoter has reduced the number of wind turbines to be installed, and will engage in an environmental management plan during the project operation to improve the conservation conditions of the nesting sites of this species, in particular by reducing the impact of invasive species or of human presence on those sites.
    b. Balearic shearwater[4] – The Balearic shearwater is critically endangered and with a rapidly decreasing population. It could be affected due to the barrier effect of the wind farm on the migratory route of a large part of the global population of this species, which use the site and its surroundings as a stop on their route. This species stops along its migration route to rest on the sea surface staying in clusters. These clusters can be disturbed in particular due to ships passing close by the birds. Hence, the promoter – on the basis of extensive site surveys and proposals from specialised ornithologists – has identified two measures to mitigate the potential impacts of the wind farm by reducing the nuisances to the resting behaviour of the migrating species that shipping creates in this species during their stop: (1) creation of specific routes for maintenance vessels to improve avoidance by the clusters of puffins and (2) sensitisation campaigns towards the yachting community to avoid disturbance of the clusters of puffins.
4. Local destruction of laminar seaweed habitat due to the installation of inter-array cables and wind turbine foundations. As a mitigant, the number of wind turbines has been reduced, the foundations are of monopole type – with a reduced footprint – and the inter-array cable will minimise the impact on dense laminar seaweed habitats.
5. Local destruction or disruption of river shores during the underground grid connection cable laying, with their potential impacts on the quality of groundwater. As a mitigant, the grid connection will be laid using horizontal directional drilling (HDD) to cross sensitive water bodies. In addition, special cable sheaths will be used to limit the disturbance of habitats and species.
6. In general, the grid connection corridor will avoid to the maximum extent possible protected sites or sensitive areas (beyond Natura 2000, which are outlined below), including habitats of protected or vulnerable flora or fauna such as the balansa clover, the southern water vole or the striped marsh-cricket.

Fécamp

1. The increase in underwater noise and the related impact to sea mammals (marine porpoise, dolphins and pilot whales) is expected to be limited, given that wind turbine foundations will be gravity-based, while the offshore substation will be installed on a jacket foundation. Hence, pile driving will be limited

[2] Both species are included in Annex 1 of the Birds Directive

[3] *Larus Marinus*, IUCN status: Least Concern.

[4] *Puffinus mauretanicus*, IUCN status: Critically Endangered.

to 4 to 8 piles. The proposed mitigating measures are similar to those in Saint-Nazaire: a deterrence/ramp-up/monitoring protocol will be put in place before and during the piling process, together with a visual monitoring protocol to detect marine mammals during the rest of the offshore construction activities (in particular dredging and dumping, underwater cable laying and foundation lowering).

2. The underground grid interconnection cable will mainly impact road traffic during construction. In order to mitigate this impact, construction works will not be performed during the summer period, in order to minimise impacts on touristic activities. Impacts to avifauna, bats (Natterer's bat – *Myotis nattereri*) or amphibians (Common toad – *Bufo bufo*) have been minimised by choosing a corridor that follows mostly existing infrastructure, and avoiding forested areas and wetlands. In addition, construction works will avoid reproductive periods of the above-mentioned fauna, or in the case of the common toad, amphibian protection fences will be installed wherever works need to be performed during the toad's pre- or post-nuptial migration periods. Finally, the underground connection cable installation methods will be adapted to the crossing of existing infrastructure or rivers (horizontal directional drilling) and to its installation in the Harfleur wetland (direct burial of high-density polyethylene sheaths). This will minimise disruption of traffic (in the case of infrastructure) and aquatic ecosystems (in the case of rivers and wetlands), due to the project construction and operation.
3. Destruction of seabed habitats is limited to a total surface area between 0.74 and 1.31 km^2, including underwater cable tracing and gravity-based foundation footprint. This is a negligible (< 1%) surface of the Natura 2000 site[5] in which the wind farm is located. In addition, the cable tracing is expected to be recolonised by the original species in a relatively short period of time, potentially prior to the end of construction.

The Environmental Impact Studies of both offshore wind farms and their associated grid connection facilities comprise – in compliance with the relevant articles in the Habitats Directive – an Appropriate Assessment (AA) of the impacts on Natura 2000 sites (including marine protected areas) in the light of their respective conservation objectives, as well as proposed measures in order to mitigate these impacts. These AAs have been reviewed by the relevant Competent Authorities, which 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.

Saint-Nazaire

The wind farm site is ca. 1 km away from the SPA FR5212014 – Estuaire de la Loire / Baie de Bourgneuf and from the SCI/SAC FR5202011 – Estuaire de la Loire Nord, while the grid connection infrastructure is less than 100 m from the SCI/SACs FR5200621 – Estuaire de la Loire and FR5200623 – Grande Brière et marais de Donges. In addition, the underground connection cable crosses the latter SCI/SAC close to the onshore substation. Overall, the AAs covered all Natura 2000 sites within a 55 km radius from the project site.

The AAs took a tiered approach, performing first a broader assessment on the expected impacts on the habitats and species relevant to all Natura 2000 sites listed above, concluding that the sites where impacts were likely were those closest to the wind farm and the interconnection facilities, i.e. closer than 15 km. Thereafter, the AAs perform a detailed assessment of the potential impacts on the habitats and species of the selected sites, in particular in regards to avifauna and marine mammals in the case of the wind farm, and in regards to marine and terrestrial flora, birds and bats.

In regards to the grid connection, the main mitigating measure proposed is to route the underwater and underground connection cable segments in such a way as to minimise impacts on flora and fauna species listed as important to the site conservation objectives. For instance:

1. The underwater cable will avoid areas with high concentration and density of laminar seaweed.
2. The cable landfall works will be organised to avoid as much as feasible the white dune habitat and the foreshore vegetation, and will be sited on the already anthropised sites around the landfall.

[5] FR21310045 – Littoral seino-marin, see below.

3. Whenever the underground cable works take place close to bat colonies, they will only be carried out during the day. If they require the destruction of large trees, a bat specialist will be consulted prior to the felling, to ensure that the tree does not contain cavities containing bats. In case a tree is occupied by bats and cannot be avoided, felling will only occur under the control of a bat specialist, outside calving and hibernation periods, and using state-of-the-art techniques[6].

Fécamp

The wind farm site and the underwater grid interconnetion cable are located within the SPA FR21310045 – Littoral seino-marin, established in 2013. The project site amounts to ca. 4% of the overall Natura 2000 site. The AA focused on the potential impacts of the wind farm on the inventory of species present in the site, based on surveys performed by the promoter in 2008-2009 and 2012-2013. This inventory contains two vulnerable species, two near threatened species, and a critically endangered one[7], for which the AA considers a medium risk of impact due to loss or modification of habitat, collision with wind turbines in operation or modification of trajectories (barrier effect).

The AA goes on to analyse the significance of the wind farm impacts on the species present in the inventory. These species showed during the surveys a flight altitude below the area swept by the wind turbine blades, a low absolute or relative presence on the project site, or a low sensitivity to offshore wind farms.

In addition, the wind farm is located beyond the 10 km distance to the shore where most of the species fly, and the wind turbines will be oriented following eight north-northeast parallel lines – hence reducing the barrier effect to flight paths perpendicular to the shore, which radar surveys showed being the most common flight direction within the site. On this basis, the AA concluded that the impacts on these species would not be significant and that the wind farm would not affect the ecological functioning of the site.

In addition, the grid connection landfall is adjacent to the SCI FR2300139 – Littoral cachois and FR2302001 – Réseau de cavités du Nord-Ouest de la Seine-Maritime. Overall, the AA covered Natura 2000 sites within a 55 km radius.

Public Consultation and Stakeholder Engagement

The two wind farms have followed extensive public consultations with the local populations and the relevant authorities, in line the requirements of the national law. These consultations were undertaken in three broad phases: (1) voluntary informal consultation during project development; (2) public debate and (3) formal public consultation, the latter two as required in the national environmental law and tender documents. The duration of the formal public consultation is determined by the competent authority, and cannot by law be shorter than 30 days, or longer than two months.

Saint-Nazaire

The voluntary informal consultation process consisted of three working groups and a plenary, which included authorities, experts, local and professional associations, as well as the promoter and RTE, the French grid operator in charge of the wind farm interconnection. These working groups met from 2012 to 2014, and their goal was to ensure adequate stakeholder engagement. The National Commission for Public Debate (Commission Nationale du Débat Public, CNDP) organised the public debate from March to July 2013, set up a dedicated website, and issued its conclusions in September 2013. During the debate the CNDP requested the promoter to perform additional studies, in particular in regards to avifauna and the visual impact of the wind farm. Around 1200 people attended the debate, and more than 5300 visited the website. Finally, the project underwent a formal public consultation process between 10 August and 25 September 2015.

[6] Obstruction of the cavities during the night, once all bats have exited them, slow felling and preservation of the cavity.
[7] VU: Gavia immer (in Europe), Rissa tridactyla; NT: Ardenna grisea, Hydrocoloeus minutus ; CR: Puffinus mauretanicus

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Fécamp
The voluntary informal consultation process took place between 2007 and 2009, involving local stakeholders and elected officials, fishermen, local associations and business players with the same goal as above. The National Commission for Public Debate (Commission Nationale du Débat Public, CNDP) organised the public debate from March to July 2013 and issued its conclusions in September 2013. More than 2000 people attended the debate, and more than 12300 visited the website. Finally, the project underwent a formal public consultation process between 1st and 8th September 2015.

Other Environmental and Social Aspects

The legality of both the concession agreement and the award and operating licence of each wind farm have been challenged in court by local associations. The arguments put forward in all these challenges are wide-ranging and very similar for all of them. They pertain to the form of the permitting process (e.g. the length of the public consultation) and to its content (e.g. the ESIA not taking into account in sufficient detail risks such as one or several wind turbines collapsing). All the challenges have been rejected in the relevant courts, although two of them are still pending the decision of French highest administrative jurisdiction (Conseil d'Etat).

As part of the permitting process, the promoter will perform a thorough and overarching monitoring programme to assess the actual impact of the project on the environment. This monitoring programme will cover impacts on seawater quality, benthic species, fish stocks, marine mammals, avifauna, etc. during the periods relevant to each impact.

The promoter has a sound environmental management capability, a good understanding of regulatory and environmental monitoring requirements, as well as adequate knowledge of the mitigating measures to be performed during construction, notably in light of the detailed studies undertaken on the subject. In light of this, the promoter's environmental capacity is considered adequate.

EIB Carbon Footprint Exercise

The emission savings are estimated at 694 000 tons of CO_2 equivalent per year, based on 3480 GWh/a average annual generation over the project life (for both wind farms) and the Bank's Carbon Footprint methodology (75% operating margin and 25% of build margin).
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

For both wind farms, the EIAs and AAs 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.

The Bank will require the promoter to submit electronic copies of :

1. The Conseil d'Etat decisions rejecting all legal challenges, prior to the signature of the Finance Contract.
2. Summary reports of any environmental monitoring that is undertaken during the construction and operation phases that the promoter submits to the competent authorities.

On this basis, the overall environmental impact of the project is considered to be acceptable to the Bank.