European Investment Bank

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Environmental and Social Data Sheet

Overview

Project Name:	BAY OF BISCAY INTERCONNECTION - PCI
Project Number:	2023-0373
Country:	France-Spain
Project Description:	The Project concerns the implementation of a High Voltage Direct Current (HVDC) link interconnecting France and Spain across the Bay of Biscay. The Project will have a rated capacity of 2000 MW, DC voltage of 400 kV and a total route length of circa 390 km.

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

The Project comprises 2 symmetrical HVDC monopoles, each having rated capacity of 1000 MW. Each monopole consists of two terminal HVDC converter stations connected via two HVDC power cables installed partly at sea and partly on land.

In France the Project comprises the following facilities:

- two HVDC converters in the municipality of Cubnezais (Gironde);
- 4x78 km of underground cables from Cubnezais to the cables landfall La Cantine in the municipality of Le Porge (Gironde);
- 4x150 km of subsea cables from La Cantine to the cables landfall Casernes in the municipality of Seignosse (Landes);
- 4x27 km of underground cables from Casernes to the cables landfall Fierbois in the municipality of Capbreton (Landes) in order to bypass the Capbreton submarine canyon. The route was originally planned to cross the canyon, but in 2019 the discovery of seabed instability along the edge of the canyon necessitated this partial rerouting.
- 4x30 km of subsea cables from Fierbois to the France-Spain maritime boundary.

In Spain the Project comprises the following facilities:

- 4x90 km of subsea cables from the France-Spain maritime boundary to the cables land fall in the municipality of Lemoniz (Biscay);
- 4x13 km of underground cables from Lemoniz to the converters site in the municipality of Gatika (Biscay);
- two HVDC converters in Gatika;

The Project will connect to the respective national transmission networks at Cubnezais and Gatika 400 kV substations that are adjacent to the respective converter sites.

Given its technical characteristics, the Project does not fall under either Annex I or Annex II of the EIA Directive 2011/92/EU amended by directive 2014/52/EU. The Project was subject to

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

multiple permitting procedures in France and Spain, as described in the below paragraphs. As the Project is a PCI (Project of Common Interest), the requirements of the TEN-E regulation 2022/869 also applied to the issuing of permits and public participation.

All the contracts for the works of the Project are signed and all the main permits are granted. The civil works are in progress for land cables and cables landfalls in France and for the converter stations in both France and Spain. Cable manufacturing is planned to start in 2025, with submarine and land cables installation works scheduled in 2026-2027. After testing, Project operation is scheduled to start in Q4 2028.

The Project is being executed through the joint company INELFE 50/50 owned by the two sponsors Red Eléctrica de España SAU (REE) and Réseau de Transport l'Electricité (RTE), the national Transmission System Operators (TSO) of France and Spain. Both sponsors have extensive experience with the implementation of HVDC subsea projects and the selected contractors are experienced and reputable companies.

France

As per requirement of the national environmental code, the Project has been subject to a full EIA. The relevant environmental authorisation was jointly granted by the prefects of the region/departments involved (Nouvelle-Aquitaine, Gironde, Landes and Pyrénées-Atlantiques) on 20/09/2023. The authorisation is valid for the duration of the operation of the Project.

The Project has been subject also to the following authorisation procedures:

a) Declaration of public utility (DUP) for the converter station of Cubnezais, granted by the prefect of the Gironde department on 06/11/2023.
b) DUP for the underground and subsea power cables, granted by the Ministry of the energy transition on 22/09/2023.
c) Concession to use the public maritime domain for the installation of the subsea power cables, jointly granted by the prefects of the region/departments involved on 19/09/2023. The concession has a duration of 40 years.

The converter station is being constructed over a flat land of circa 5 ha. The connection with the adjacent existing substation will be via a short overhead 400 kV line. The converter station will include two converter buildings (one for each HVDC monopole), their annexes as well as outdoor electrical equipment, in particular 7 converter transformers (6 for normal operation and 1 spare).

Underground cables are mainly installed in trenches excavated along roads, cycle paths and forest tracks. Crossing of rivers and waterways, including Dordogne and Garonne, as well as the main roads is done mostly via trenchless techniques (Horizontal Directional Drilling- HDD, bridging).

At the three landfall locations La Cantine, Casernes and Fierbois the costal dunes are crossed using micro-tunnels that extend up to 1,300 m off the coast. The junctions between the underground and subsea cables are made in underground chambers located behind the dunes at the landward end of the micro-tunnels.

At sea the cables will be buried in the seabed using either ploughing, jetting or trenching techniques depending on the features of the sea bottom. Prior to the actual laying of the cables, several operations of reconnaissance and cleaning of the seabed will be undertaken, including possibly some "pre-sweeping" operations consisting of flattening or softening the underwater relief in areas where there are underwater sand dunes. In the northern section of the marine route (Gironde-Landes) the cables will laid at a maximum water depth of 50 m. In the southern section of the marine route (from Landes to the maritime boundary FR-ES), the maximum water depth is circa 100 m.

The converter station site is not located within or in proximity of any protected site, in particular any Natura 2000 site, nor any natural areas of ecological, faunal, and floral interest (ZNIEFF). It is sufficiently far from the nearest sites not to have any impact on their conservation objectives.

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The terrestrial cables route has the potential to impact nine sites of the Natura 2000 networks[2]. It was therefore subject to an Appropriate Assessment in line with Article 6.3 of the Habitats Directive. The assessment concluded that, subject to the implementation of certain mitigants during the construction phase, the Project will not adversely affect the integrity of the sites concerned. The majority of the sites will not be affected because the Project works will be undertaken via trenchless techniques (HDD, micro-tunnelling, bridging) resulting in no or very limited impacts. Mitigation measures prescribed under the environmental authorization in certain locations include avoiding works during the breeding season (January-March) of legally protected species and validation of the construction sites boundaries by an ecologist. In addition, the impacts of the terrestrial cables route are either non-existent or low and temporary on the ten natural areas of ecological, faunal, and floral interest (ZNIEFF type I or II) concerned.

Concerning the marine domain, the distance of the cables route from the nearest sites of the Natura 2000 networks and from the Parc naturel marin du Bassin d'Arcachon is between 5.4 km and 39.6 km, and therefore impacts are unlikely (acoustic nuisances and turbidity of the construction site, alteration of the substrate). As per condition in the environmental authorisation, during the works at sea contractors shall in any case use soft-start techniques to allow marine mammals and fish to leave the area before the maximum noise emission is reached.

Ecological studies, including a biosedimentary study and associated sampling campaign for the marine part, were carried out to identify the population of legally protected species in the Project area, assessing the associated impacts and the appropriate mitigation actions.

In the marine domain, the impact of the Project on the populations of protected marine species has been evaluated as negligible. The impacts of pre-sweeping operations and cables installation works on the benthic populations are also considered low, because temporary, reversible and the affected surface is negligible (less than 1%) on the scale of the territory where benthic communities are identified in the biosedimentary study area.

In the terrestrial domain, with the implementation of avoidance and mitigation measures, the residual impacts have been assessed negligible for the vast majority of the species identified. However, there are low to very low residual impacts for 3 plant species[3], 11 fauna species[4] and groups of birds, amphibians, reptiles, and bats. A request for derogation to the strict protection of these species, together with a plan of compensatory measures, was therefore submitted by the sponsor and approved by the competent authority for reasons of overriding public interest, in compliance with the national environmental code and Article 16 of the Habitats Directive. The planned compensatory measures involve the restoration/creation of habitats for the species impacted via the designation of compensation sites, whose management and ecological monitoring will last for 25 years.

The construction of the converter station and the installation of underground cables in the Gironde section result in the loss of 6.25 ha of wetlands. In line with the requirement of the River Basin Management Plan Adour-Garonne, the loss will be compensated by creating 9.3 ha of wetlands, distributed over three sites.

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[2] NATURA 2000 FR7200678 – « Dunes du littoral girondin de la Pointe de Grave au Cap Ferret »
NATURA 2000 FR7200681 – « Zones humides de l'arrière-dune du littoral girondin »
NATURA 2000 FR7200660 – « La Dordogne »
NATURA 2000 FR7200700 – « La Garonne en Nouvelle Aquitaine »
NATURA 2000 FR7200686 – « Marais du Bec d'Ambès»
NATURA 2000 FR7200685 – « Vallée et palus du Moron »
ZSC FR7200712 « Dunes modernes du littoral landais de Vieux-Boucau à Hossegor »
ZSC n°FR7200713 « Dunes modernes du littoral landais de Capbreton à Tarnos»
ZSC n°FR7200719 « Zones humides associées au marais d'Orx »

[3] Lotier hérissé (*protection régionale)*, Romulée bulbocode (*protection régionale*) and Rossolis intermédiaire (*protection nationale*)

[4] Crapaud calamite (*Annex IV Directive Habitats, protection nationale*), Salamandre tachetée (*protection nationale*), Grenouille agile (*Annex IV Directive Habitats, protection nationale*), Rainette méridionale (*Annex IV Directive Habitats, protection nationale*), Faucon crécerelle (*protection nationale*), Fauvette pitchou (*Annex I Directive Oiseaux, protection nationale*), Oiseaux landicoles *(protection nationale)*, Loutre (*Annexe II & IV Directive Habitats, protection nationale*) Vison d'Europe (*Annexe II & IV Directive Habitats, protection nationale*), Campagnol amphibie (*protection nationale*), Hérisson (*protection nationale*).

The Project requires cutting down circa 16 ha of forest, of which 4.3 ha for the easements of the underground cables and 11.7 ha for the ecological compensation of wetlands and protected species. Forest clearing will be carried out outside the bird breeding season, from March to August inclusive.

Spain

The Project has been subject to a full EIA. The relevant environmental authorisation (DIA) was issued by the General Directorate of quality and environmental assessment within the Ministry of the ecological transition and demographic challenge on 14/12/2022. The authorisation is valid for the duration of the operation of the Project.

The Project has been subject also to the following authorisation procedures:

a) Prior Administrative Authorisation (AAP) granted by the General Directorate of Energy Policy and Mines within the Ministry of the Ecological Transition and Demographic Challenge on 20/7/2023.
b) Administrative Construction Authorisation (AAC) and Declaration of Public Utility (DUP) granted by the same General Directorate of the AAP on 26/2/2024, following a decision by the Council of Ministers.
c) The concession for the use of the public maritime-terrestrial domain for the installation of the power cables at sea and at landfall, which is expected to be granted by the General Directorate of the Coast and the Sea within the Ministry for Ecological Transition and the Demographic Challenge on 29/11/2024.

The converter station is located on an area of approximately 7 ha. The connection to the adjacent existing substation will be via a short 400 kV underground line. As the site selected is on a mound, significant earth movements are required for levelling the ground in the area. In terms of buildings, the criteria and requirements applicable to the converter stations are generally the same in France and Spain.

Underground cables will be installed in trenches excavated mostly along forest tracks and paths and the rest through crop fields and hay meadows. Crossing of the rivers (including the Butron) and of main roads will be done via HDD. At the landfall in Lemoniz, the cables will be installed via HDDs that extend from 600 m off the coast to the junction chambers located on land about 100 m above the sea level.

In Spanish waters the cables will be laid at a maximum water depth of 140 m. Cables installation techniques and works are similar to the French part, with pre sweeping operations plus jetting/ploughing in soft substrates and trenching in hard substrates. Where the substrate is rocky and very irregular (e.g. in the last 30 km of the sea route prior to landfall) rock placement (pouring small rocks to form a protective berm) will be used. As for the French part, impacts of cables installation works and associated operations on the benthic populations are considered low, because temporary, reversible and the affected surface is negligible.

The converter station site and the land route of the cables are not located within or in proximity of any protected site, in particular any Natura 2000 site.

The part of the marine route approaching the landfall and the landfall itself are located within the boundary of the Special Protection Area ES0000490 «Espacio Marino de la Ría Mundaka-Cabo de Ogoño», overlaid with the Important Birds Area «Ría de Gernika-Cabo de Ogoño»[5]. The Project was therefore subjected to Appropriate Assessment in line with the article 6.3 of the Habitats Directive. The assessment primarily concluded that, considering the spatial distribution of the marine Natura 2000 Network, there was no possibility of designing an alternative route that does not cross areas included in the Natura 2000 Network, since it

[5] This area is protected due to its importance as a marine strip associated with several breeding colonies of European storm petrels (Hydrobates pelagicus) and European shags (Phalacrocorax aristotelis aristotelis) established along the entire coastal sector and islets. The area is also important for a great diversity of migratory seabirds, among which the Balearic shearwater (Puffinus mauretanicus) and the Atlantic gannet (Morus bassanus).

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extends as a continuous strip in an east-west direction along the coast. The assessment also concluded that the Project will not adversely affect the integrity of the sites concerned.

The review by the competent authorities resulted in additional surveys and mitigation measures to be applied in general for works in the coastal area and at sea:

- Schedule of works will be adapted to the reproductive season of the protected species, avoiding as far as possible the period between December and July (both inclusive).
- Work in the area surrounding the landfall will be halted from 1 January and surveys will be carried out during the breeding season (January-February). If active breeding areas or signs of reproductive activity are identified in the nearest birds colonies of the SPA (Armintza and Anparrantxi Punta) the works will be stopped and the competent administration of the Provincial Council of Bizkaia will be informed, who will determine the conditions and additional measures it deems appropriate to resume the works.
- At night, light sources must be minimized, with the necessary guarantees for the safety of vessels and crew, to avoid glare and disorientation of seabirds and disturbance to aquatic species.
- The time period for carrying out noisy works will be reduced to the minimum possible, adjusting the work schedule to avoid, if possible, periods of greater presence of cetaceans in the potentially affected marine environment.
- Prior to the works, a preliminary survey of the potentially affected benthic communities will be carried out by means of observational surveys with divers and/or ROVs, characterising and quantifying the affected areas. Special attention will be paid to protected species, gorgonians and reefs[6]. Depending on the results of the monitoring of the recolonisation of benthic communities and the recovery of the habitats, the sponsor must carry out restoration measures, as well as the reconditioning of the seabed.

Prior to the start of the works on land, surveys will be carried out, focusing on protected species of forest birds (common buzzard, green woodpecker, lesser spotted woodpecker, great spotted woodpecker), of reptiles/amphibians (leper pond turtle, European pond turtle, long-legged frog, green lizard) and of the European mink with the aim of detecting the presence of specimens and/or nesting/breeding areas. The surveys will be carried out in different periods depending on the group of species involved, as specified in the DIA. In the event of a discovery, the competent administration of the Basque Government or the Provincial Council of Bizkaia will be immediately informed, and the works will be halted until the latter determines the additional measures that are necessary.

It is estimated that the Project will require the clearing of circa 13 ha of vegetation, which will be revegetated with native species after the completion of the works or compensated (1:2 ratio).

The substantial volume of excavated natural material at the converter site (estimated 400,000 m^3) will be 100% reused.

EIB Carbon Footprint Exercise

The sources of CO2 equivalent (CO2 e) emissions for the Project are the ohmic losses in the converters and in the cables of the Project and the indirect emissions resulting from the losses in the rest of the network. These emissions are however offset by the indirect emissions savings resulting from the avoided curtailment of intermittent RES enabled by the Project.

The corresponding average absolute emissions are estimated at 81 kt CO2 equivalent per year while the relative emissions savings are estimated at 1534 ktCO2 equivalent per year.

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.

EIB Paris Alignment for Counterparties (PATH) Framework

[6] Habitats of European Interest 1170, Annex I of the Habitats Directive

Redeia Corporación, REE's parent, is in scope and screened out of the PATH framework because has less than 20% of revenues from high-emitting activities and its physical risk anchor score is below 3.

The PATH assessment is performed at subsidiary level for RTE, rather than at the parent level (EDF). This is due to RTE's certification as an Independent Transmission Operator, in accordance with European Directive 2009/72. RTE is in scope and has been screened out for high emitting, given it is operating in a low-emitting sector. However, it has been screened in for high vulnerability and assessed as aligned with PATH resilience requirements.

Social Assessment, where applicable

The Project is designed to comply with the electromagnetic fields exposure limits set out in the corresponding national legislations and in Council Recommendation 1999/519/EC. A summer no-work window has been agreed with the authorities not to interfere with the touristic season in coastal areas.

Public Consultation and Stakeholder Engagement

As per requirements of the TEN-E regulation, the Project was subject to pre-application public consultations carried out over 2017-18 in both France and Spain. These consultations led, among other things, to the validation of the lowest-impact corridor for the Project. In France, a second pre-application consultation was carried out in 2020-21 for the bypass of the Capbreton canyon. For brevity, only the outcomes of the final statutory public consultations are reported in this ESDS.

France

The public inquiry took place in the 46 municipalities concerned by the Project from 17 October to 16 December 2022. The inquiry was advertised on six newspapers, including two with national coverage, and via 145 panels installed along the Project route. The inquiry dossier was available for the entire duration of the process at the 3 enquiry headquarters located in Le Porge, Capbreton and Saint-Jean-de-Luz and in the town halls of the other concerned municipalities. The public could submit observations by various means: during the 122 meetings organised by the inquiry commission in the involved municipalities, in registers available in the municipalities' town halls, by mail, by email and online. Nearly 2000 contributions were submitted during the process, the majority of which (59%) were filed by the residents of the Landes municipalities concerned by the terrestrial bypass of the Capbreton canyon. The contributions submitted are in general opposed to the Project due to concerns ranging from health risk (electromagnetic field), negative effects on tourism, depreciation of properties, effects of works on traffic to doubts about the actual benefits of the interconnection for citizens. The sponsor addressed the concerns raised, provided reassurances, and made the commitment of studying improvements that may be integrated in the detailed design of the Project. On this basis, the public inquiry committee issued a favourable opinion to the requests for environmental authorisation, DUP and marine concession of the Project on 8 February 2023.

Spain

Public consultation took place from 31 May 2021 to 2 August 2021. The consultation was advertised on the official gazette of Biskaia, the official gazette of the State and two regional newspapers. The Environmental Impact Study could be examined at the Industry and Energy Office of the Government of Bizkaia or downloaded from the web. The consultation gave the possibility to interested parties to submit online any relevant observations on the Project. In total circa 200 observations were received. The contributions submitted are in general opposed to the Project due to concerns ranging from negative impacts on sensitive habitats and water courses, health risk for humans and livestock, negative effects on tourism, depreciation of properties, to doubts about the actual benefits of the interconnection for citizens. The sponsor addressed the concerns raised referring to the outcomes of the EIA report and of the underlying assessments.

Other Environmental and Social Aspects

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The Climate Risk and Vulnerability Reports (CRVA) integrated in the EIAs indicate that the Project is not exposed to climate risks.

Based on both the Spanish and French EIA reports, the Project is expected to achieve favourable compatibility with the specific environmental objectives outlined in the Marine Strategy for the North Atlantic Demarcation.

The operation has been assessed for its Paris alignment. It is considered to be aligned for low carbon and resilience, in line with the policies set out in the Climate Bank Roadmap and with the EIB's Energy Lending Policy.

A team of the Bank visited the Project sites in both France and Spain from 11/9/2024 to 13/9/2024. The team noted excellent organization and oversight of operations at every construction site visited. In the land sections of both France and Spain, the team also observed signs and posters opposing the Project displayed outside a few private homes.

Conclusions and Recommendations

The Bank reviewed the EIA reports, the public consultation documents and the permits of the Project. Based on this review and the observations from the visits to the Project sites, the Project is acceptable to the Bank in environmental and social terms.