PROJECT POTEGOWO – ONSHORE WIND PORTFOLIO

Project name: *Potegowo*
Borrower: *Potegowo Mashav sp z.o.o*
Borrower`s Shareholder*: Potegowo Holdco sp z.o.o*
Project Sponsor: *Israel Infrastructure Funds (86%), Helios Energy Investments (5.9%), Caesarea Medical Electronics Holding Ltd (5.9%) and Cerac SA (2.2%)*
Sector: *Energy / Renewable (Onshore Wind)*
Country: *Poland*
Financial Product: *Project Finance*
Banca IMI S.p.A., London Branch: *MLA*
Equator Principles category: *B*

Project description

The Project consists of 7 wind farms divided into two main clusters:

- Potegowo East is composed of 38 Wind Turbine Generators ("WTGs") with an installed capacity of 118.25MW;
- Potegowo West is composed of 43 WTGs with an installed capacity of 101.25MW.

Scheduled completion dates are 30 June 2020 and 30 November 2020 respectively.

Constructions works, including both electrical and civil, are carried out under a Balance of Plant Agreement with highly experienced contractors: (i) Erbud Group, one of Polands' top five construction companies operating in civil engineering, road construction and construction projects for the energy sector both in Poland and in other European countries (the group has acquired and successfully completed dozens of wind farm construction contracts throughout Poland) and (ii) Electrum Sp. Z o.o., a Polish company providing engineering solutions to the renewables market that is involved in almost every wind project in Poland in recent years.

General Electric will be both the WTG provider and will undertake the Operation and Maintenance of the Project for 5 years with the option to be extended by the buyer by up to 18 years with an availability of 97% after the final completion date.

The Project will benefit from the local subsidy scheme for renewables, which is a 15-year Contract for Difference guaranteeing a fixed electricity strike price of 194.95 PLN/MWh for Potegowo West and 184.95 PLN/MWh for Potegowo East, for approximately 60% of the production, while the remaining 40% will be merchant with associated market risk.

The total cost of the project (including historical development costs) of PLN 1.2bn (EUR 283mln) was partially financed through a PLN 730 mln Senior Term Loan provided by EBRD, DNB, mBank, Bank Pekao and Intesa Sanpaolo.

Summary of Key Environmental Impacts and Risks

Construction phase

The main impacts of projects associated with wind farm development relate to earth works (primarily during setting of foundations for the towers), construction works and increased transport traffic and include intrusion and disturbance within soils strata, temporary change of groundwater levels (when groundwater draining is required during the construction), increased noise and vibration.

The Company is going to implement the best practice to limit the nuisance of the construction works. To limit the impact the investor is going to apply as the following measures:

- to use construction equipment complying with noise and exhaust fumes abatement levels while excavating for foundations and building provisional access roads;
- to plan transport routes for cars and heavy machinery in such way that local citizens are minimally impacted;
- in addition, to reduce noise emissions during the investment delivery stage, construction works which could cause excessive noise emissions should be reserved for daytime and organized in such a manner to reduce the noise-related nuisance to a minimum;
- to provide protection of trees within the access roads construction site with protective bands which should be removed immediately upon completion of construction works;
- to prevent contamination of the construction site with polluting substances, e.g. by well-sealed fuel distribution to equipment and vehicles operated during construction and maintenance;
- to conduct waste management in line with the provisions of Waste Act and local commune regulations.

Operation phase

Completed investigations and public consultations conducted primarily as part of the environmental impact assessments procedure identified that the main environmental impacts associated with the operation of the wind farm related to increased noise levels, change in the landscape and impact on avifauna and bats. Apart from the individual EIAs for the subprojects, a cumulative impact assessment has been completed for the Project as a whole. This assessment takes into account other wind farms in the vicinity of the Project's two subprojects in order to get a clear picture of the cumulative effect. Given below are the general conclusions of that assessment.

The main measure which may be used to prevent significant environmental impact of a wind farm is a **good choice of the location**. Thus, during the project preparation a number of different possible locations of wind turbines have been analysed. In preparation for the investment (apart from technological and economic issues such as winds characteristics and costs of land lease and use), the following issues, important from the perspective of environmental protection have been taken into account:

- existing state and way of land development and use of areas, which includes distribution of residential housing, forests, farming land
- mutual impact of individual objects on each other, including also possible aggregation of sound waves
- necessity of protecting residential housing against noise
- location from the perspective of birds and bats protection.

The second aspect of choice, which is also very important from the point of view of environmental protection, was the choice of a producer and a supplier of equipment. The company decided to install WTGs manufactured by the leading international company, General Electric.

Analysis of the placement of WTGs and successive preparation of variants of individual WTGs' location took several months. After many analyses of the preliminary lay-out of wind turbines, considering noise restrictions, avifauna protection, soil's characteristic, adjustments to the lay-out have been implemented. The layout of the wind turbines has been planned to achieve the following goals:

- not to exceed the binding environmental noise quality standards, established by an Executive Order from the Ministry of Environment;
- to be located out of birds' migration routes, birds' concentrations, feeding or nesting areas;
- to be located outside of valuable plants habitats, wetlands or forest areas;
- to be located out of natural and landscape protected areas;
- not to disturb the continuity of ecological corridors.