

BANI MATAFONGO WIND PROJECT
ENVIRONMENTAL AND SOCIAL STRATEGY¹

I. PROJECT DESCRIPTION

- 1.1** Grupo Eolico Dominicano (GEDOM), the Borrower, is seeking financing from IDB (up to US\$ 35.4 Million) for the construction, operation and maintenance of a wind power project and associated infrastructures to be built in Dominican Republic. The Bani Matafongo Wind Power Project (BMWPP) will have a power generation capacity of 30.6 MW. It is located in the central South West zone of the province of Peravia (see Map 1 in Annex). Total project's costs are estimated at US \$ 73.0 Million.
- 1.2** The BMWPP construction works are located between three municipalities, de la Caldera, Arroyo Hondo and Vila Fundacion, all in the central South West zone of the state of Peravia, near the city of Bani. The BWPP entails the implementation or construction of the following components: (1) 17 VESTAS V90 wind turbine generators with a nominal capacity of 1.8 MW; (2) A 138 kV transmission line of 10 km from the project site to the national grid connection point Pizarrete-Cruce San Juan; (3) Civil engineering works consisting in the construction of access roads, a substation, and foundations and platforms for the wind turbines. Each tower is 78 m high and includes a rotor diameter of 88 m. The 17 wind towers would be erected at an elevation that varies between 99 m and 146 m above sea level, the approximate distance between each towers is 600 m. Each wind towers will be interconnected by medium-voltage (34.5 kV) underground lines which will carry the electricity generated by each wind turbines to the substation.
- 1.3** The total project workforce for the BMWPP is unknown. Construction activities are expected to start in 2011 with a commissioning date envisioned for the beginning of 2012.

II. INSTITUTIONAL AND REGULATORY CONTEXT²

- 2.1** In 2004, the Borrower presented an Environmental Impact Assessment (EIA) to the environmental authorities (Secretario de Estado de Meio Ambiente y Recursos Naturales). On June 28th, 2005, these authorities issued an environmental license for the project. Given the changes occurred in the design of the project since 2004 (reduction of the number of wind towers, technological and engineering modifications), the Borrower

1. This Environmental and Social Strategy (ESS) is being made available to the public in accordance with the Bank's Policy on Disclosure of Information. The ESS has been prepared based primarily upon information provided by the project sponsors and does not represent either the Bank's approval of the project or verification of the ESS's completeness or accuracy.

² This section would be complete during the due diligence process as we are unclear, given the changes in project scope of work, on the status of the project's requirements at the institutional and regulatory levels.

the Borrower had updated the original EIA. As of September 2010, the environmental license issued in 2005 is still valid.

- 2.3 The Project triggers numerous directives of IDB's OP-703 Environmental and Safeguards Policy: B.2, Country Laws and Regulations; B.3, Screening and Classification (Project categorization may changed); B.4, Other Risks Factors (client's capacity and commitment to address and manage environmental matters); B.5, Environmental Assessment (the EIA prepared in 2005 does not fully meet the requirements of this Directive); B.6., Consultation (evidence of consultation with affected parties regarding the Project's current scope of work); B.7, Supervision and Compliance. The OP-702, Disclosure of Information Policy also applies for this Project. The application of Directive B.9 on Natural Habitat will be determined during the Due Diligence. The application of OP-710 on Involuntary resettlement will also be determined during the Due Diligence process as some land acquisition may be required for the Right of Way for the transmission line.

III. KEY POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

- 3.1 The environmental impacts related to construction activities (e.g. soil erosion, noise, dust generation, traffic disruption) are likely to be of limited significance, and can be mitigated through routine standard procedures. Areas temporarily used or disturbed during construction will be reinstated and re-vegetated at the end of construction, and the permanent footprint of each tower is relatively small. Occupational health and safety hazards specific to wind energy facilities and activities primarily include working at heights. Hazards associated with working at heights can generally be prevented with an adequate health and safety management system.
- 3.2 The project area is located North of a protected area *las Dunas de Las Calderas* which (see Map 2 in Appendix). According to Birdlife International, the protected area is home to the Vulnerable West Indian Whistling-duck *Dendrocygna arborea* and Near Threatened Hispaniolan Palm Crow *Corvus palmarum*. A wide diversity of waterbirds are also present in this protected area including nesting species such as Snowy Plover *Charadrius alexandrinus*, Wilson's Plover *Charadrius wilsonia*, Least Tern *Sterna antillarum* and Willet *Catoptrophorus semipalmatus*. The Near Threatened Piping Plover *Charadrius melodus* has been recorded in small numbers. According to the information presented in the updated EIA, the birds present in *Las Calderas* protected area are not present in the project's area. The vegetation within the project's area combined with a low level of precipitations doesn't constitute optimal habitat conditions for permanent settlement of bird populations
- 3.3 Once in operation, the wind turbines may result in collisions of birds with wind turbine rotor blades and towers, potentially causing bird mortality or injury. Given the absence

of bird studies during the migration period, it cannot be determined at this stage if the project's area is found within the flight path of migratory birds. The Borrower will conduct bird studies during the fall migration period (October-November). The results of the studies will help to determine if the project's area is of significance for migratory birds.

- 3.4** Based on available documentation and completion of a site visit realized in August 2010, the visual impacts of the wind towers will likely be minimal and, the project does not face any public opposition.

IV. ENVIRONMENTAL AND SOCIAL DUE DILIGENCE STRATEGY

- 4.1** Taking into account the requirements outlined in IDB's OP 703 Environment and Safeguards Compliance Policy, the Team proposes that the Bani Wind Power Project be classified as a Category B. Project's categorization may change during the due diligence process given that the Project has been substantially modified and, to date, environmental and social information and impacts have not been updated accordingly.
- 4.2** The Bank will perform an Environmental and Social Due Diligence ("ESDD") in order to confirm that all Projects relevant impacts and risks have been, or will be properly and adequately evaluated, and mitigated.
- 4.3** The environmental and social due diligence for the Project will specifically address the following aspects:
- a.** Review of updated EIA. Determination if environmental and social impacts have been properly assessed given the changes in the scope of work of the project.
 - b.** Review of avian studies (to be carried out during the migration period) once available.
 - c.** Assessment of cumulative impacts on migratory birds, and development of an appropriate mitigation mechanism comprising real time monitoring of birds during migratory seasons and a wind turbine generators shut down procedure;
 - d.** Potential adverse impacts on terrestrial ecosystems as a result of construction activities i.e. Transmission line; towers; and access roads.
 - e.** Potential adverse socio-economic impacts of: land acquisition; construction activities; temporary loss of access to agricultural land; once further information on land acquisition required for the installation of wind towers.
 - f.** Assessment on the adequacy and timely consultation and information dissemination process with affected parties of the current project.

- g.** Review of the Environmental and Social Management Plan (ESMP), the ESMP should be ready for, and reviewed during the due diligence process.
 - h.** Determination if the Project has been designed and carried out in compliance with environmental law and regulations of Dominican Republic.
 - i.** Assessment of the client's capacity and commitment to address and manage environmental matters through the review the Company's Environmental, Health and Safety Management System, including plans and procedures, to assess their adequacy in terms of responsibilities, training, auditing, reporting, and resources to be made available to ensure adequate implementation.
 - j.** An evaluation, and further development as necessary, of Project execution monitoring and supervision procedures to ensure proper implementation of environmental, social, health and safety and labor actions and requirements;
 - l.** Assessment of the Project's compliance with all relevant safeguards directives of the IDB's Environment and Safeguards Compliance Policy, and development of an Action Plan for the timely resolution of non-compliances;
- 4.4** As part of the ESDD process, the Project Team will analyze the environmental and social aspects of the Project and prepare an Environmental and Social Management Report ("ESMR").

Map 1. Location of Bani Wind Power Project



Map 2. Location of protected area

