

BII NEE STIPA II WIND POWER PROJECT – MEXICO
ENVIRONMENTAL AND SOCIAL STRATEGY – DRAFT

I. PROJECT DESCRIPTION

- 1.1** The Wind Project Bii Nee Stipa has been developed by Gamesa Energia S.A. (“Gamesa”) and Cableados Industriales S.A. de C.V. (“CISA”) and is composed of five phases with an overall capacity of 314 MW. The first phase, Bii Nee Stipa I (26 MW) has been completed and sold to Iberdrola S.A. in early 2010. Phases three to five will be developed in the coming years.
- 1.2** The Bii Nee Stipa II project consists of the construction and installation of a 74 MW ready to build wind farm in the Tehuantepec Isthmus in Oaxaca, Mexico. A total of 37 wind turbine generators (model G80) with a 2 MW nominal capacity will be installed with a net energy generation of 278 GWh per year. The project will also include: the construction of one substation; a 2.7 km-long double circuit 115 kV transmission line consisting of approximately eight towers, to connect the wind farm to the national grid; several smaller underground transmission lines within the wind concession area; and construction of maintenance and service roads within the wind concession

II. INSTITUTIONAL AND REGULATORY CONTEXT

- 2.1** Based on an initial design, which incorporated over 200 generators on three times the acreage, the Project was granted an Environmental License in 2003 by relevant Mexican authorities (SEMARNAT). The Environmental License has been extended several times by SEMARNAT. The Environmental License was most recently updated in February 2011 to incorporate modifications in design, including changes in number and capacity of the generators to incorporate technological advancements in generators commercially available on the market. The requirements to obtain other permits will be investigated during Due Diligence.
- 2.2** The Project triggers the following directives of IDB’s OP-703 Environmental and Safeguards Policy: B.1, Bank Policies; B.2, Country Laws and Regulations; B.3, Screening and Classification; B.5, Environmental Assessment Requirements; B.6., Consultations; B.7, Supervision and Compliance; and B.9 Natural Habitats and Cultural Sites; B.10, Hazardous Materials; B.11, Pollution Prevention; and B.12 Projects Under Construction. The OP-702, Disclosure of Information Policy also applies for this Project. Based on available documentation, it is not expected that OP-710 on involuntary resettlement will be triggered for this Project. However, the Due Diligence will examine

if land acquisition or economic displacement will occur in relation the Project. Based on available information, the Project had been classified by the Bank as a Category B operation.

III. ENVIRONMENTAL AND SOCIAL SETTING

- 3.1** According to the EIA, the wind concession covers an area of 514.078 ha. The total area to be permanently affected by the erection of the wind turbines, maintenance roads and the substation is currently unknown. The overall wind concession area had already been impacted by human activities such as agriculture, as well as grazing activities. According to the information available in the EIA, the landscape appears to be mostly composed of agricultural fields and pasture lands with patches of native jungle and thorn forest. Due Diligence will investigate the potential impacts to the areas from the placement of any nearby turbines.
- 3.2** There is no precise information available on the scale of economic activities, occurring within the wind concession area such as agricultural activities or cattle grazing; however, it appears possible that some economic displacement will occur as it has been stated that a few domiciles exist within the project footprint, some within a few hundred meters of planned turbine sites. There is no indication in the documentation that affected people have been appropriately consulted on the Project, which will be investigated during the Due Diligence.
- 3.3** The existing environmental documentation does not identify any sensitive habitats in the area, nor any sensitive or protected species of flora or fauna, aside from five bird species (*Colinus virginianus*, *Contopus cooperi*, *Vireo Bellii*, *Aimophila sumichrasti*, and *Passerina ciris*) all listed as Near Threatened on the IUCN Red List; however, the studies focus on avian fauna alone. A known migratory bird route exists to the south of the Project area and outside the area of influence. The Due Diligence will verify that no critical habitat exists in the Project area.

IV. KEY POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

- 4.1** Potential environmental impacts and risks associated with wind farms during the construction phase are mainly linked with the erection of the wind turbines, the installation of the transmission line, the substation and access roads. Main construction impacts are: (i) habitat disturbance; (ii) soil erosion; (iii) dust generation; (iv) increased heavy traffic; (v) noise; (vi) loss of vegetation and; (vii) occupational health and safety hazards for the workforce. Of specific importance for Bii Nee Stipa II, may be: impacts, including collision risk and habitat loss, to five bird species (*Colinus virginianus*,

Contopus cooperi, *Vireo Bellii*, *Aimophila sumichrasti*, and *Passerina ciris*) all listed as Near Threatened on the IUCN Red List, as detailed in the Bird Survey Report; consultation process with the community, presence/absence of sensitive habitats and/or species and potential impacts to each must be verified; and appropriate compensation plan in the event of impacts to agricultural or grazing activities.

- 4.2** Once in operation, main impacts and risk associated with wind farms are: (i) bird collisions; (ii) bat collisions and barotraumas incidents; (iii) loss of vegetation; (iv) accidental discharges of hazardous materials; (v) community health and safety hazards; and (vi) noise impacts caused by the wind turbines.
- 4.3** The Due Diligence will determine with more certainty the extent of anticipated impacts of the Project. It is expected that the Borrower will apply mitigation measures that corresponds to best industry practices for the wind power sector.

V. ENVIRONMENTAL AND SOCIAL DUE DILIGENCE STRATEGY

- 5.1** Based on the requirements outlined in IDB's OP-703 Environmental and Safeguards Compliance Policy, the Team proposes that the Bii Nee Stipa Wind Power Project be classified as a Category B.
- 5.2** The Bank will perform an Environmental and Social Due Diligence ("ESDD") in order to confirm that all of the Project's relevant impacts and risks have been, or will be, properly and adequately evaluated, and mitigated.
- 5.3** The ESDD will specifically address the following aspects:
- a.** Review current environmental information to ensure conditions remain consistent with the finding of the original EIA which described a larger project consisting of 225 generators on over 1700 ha of land;
 - b.** Determine if additional flora and/or fauna surveys should be conducted in order to determine potential impacts;
 - c.** Investigate the potential impacts of the transmission line and internal access roads, provided more details on their locations;
 - d.** Assess potential adverse socio-economic impacts of construction activities such as temporary, or permanent, loss of access to agricultural or grazing lands for farmers and herders;
 - e.** Determine the land ownership structure and if compensation plans (including for the rights of way) and land agreements are adequate.

- f.** Determine if the Policy on Involuntary resettlement applies for this project
 - g.** Assess the adequacy and timely consultation and information dissemination process with affected parties of the current project (note that there is no mention of any public consultation activities in the available documentation);
 - h.** Assess the adequacy of the health and safety procedures of the company;
 - i.** Review the Environmental and Social Management Plan (ESMP) to ensure the avoidance, minimization, and mitigation of any potential impacts;
 - j.** Determine if the Project has been developed and implemented in compliance with the environmental laws and regulations of Mexico;
 - k.** Given the location of the project, determine the extent of cumulative impacts.
 - l.** Review of the Noise Study to determine if any households will experience excessive noise impacts during construction or operations. Should any inhabitants be negatively impacted appropriate mitigation should be developed and implemented;
 - m.** Assess the Project's compliance with IDB's Environmental and Safeguards Compliance Policy (OP-703) and develop an Action Plan in order to resolve any observed non-compliance.
- 5.4** An Environmental and Social Management Report (ESMR) will be prepared by the Project Team as part of the ESDD to analyze the management of the environmental and social aspects of the project.

Figure 1: Project Location Map

BNSP2 Wind Farm

