INTER-AMERICAN DEVELOPMENT BANK

URUGUAY

CARAPE WIND POWER PROJECT (UR-L1086)

Category B Project

Environmental and Social Management Report (ESMR)

September 2013

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I. INTRODUCTION

A. Summary Table

1.1

Country	Uruguay
Sector	Infrastructure and Energy
Project Name	Carape Wind Power Project
Borrower and / or Sponsor	Fingano S.A. and Vengano S.A.
Executing Agency and / or Company	Fingano S.A. and Vengano S.A.
Transaction Type	Project Finance
Total Project Cost (in US Dollars)	US\$ 221 million
IDB A-Loan (if applicable)	Up to US\$ 89 million
B-Loan/Co-lenders	China Fund (US\$44,5 million)
	Bank of the Republic of Uruguay (US\$40,2 million)
Environmental Category	В
Project Team	Gian Franco Carassale, Project Team Leader (SCF/INF), Steven Collins (VPS/ESG), Federico Chiaramonte, (SCF/INF), Maria Conejo (SCF/INF), Augusto Repetto (LEG/NEG), Juan Paredes (INE/ENE) under the supervision of Jean-Marc Aboussouan (Chief, SCF/INF)

B. Background

1.2 The Project is the result of an effort by the Government of Uruguay ("GoU") to diversify the Country's electricity matrix and reduce dependence on imported fossil fuels, which provided approximately 58 percent of the energy supply in 2009. In this context, the Sponsors successfully participated in the first wind and second wind energy tenders conducted by the *Administración Nacional de Usinas y Transmisiones* ("UTE" or the "Off-taker"), the governmental energy utility of Uruguay in January 2011 and August 2011. As a result the Borrowers were awarded two 20-year power purchase agreements (PPA) the first to Fingano S.A and the second to Vengano S.A.

- 1.3 Fingano S.A. and Vengano S.A., the Borrowers, are seeking financing from the IDB for the construction, operation and maintenance of a 50 MW wind farm (Carape I) and a 40 MW wind farm (Carape II). Additional financing is expected to come China Co-Financing Fund for Latin America and the Caribbean (the "China Fund") and Banco de la República Oriental del Uruguay ("BROU" and together with the IDB and the China Fund1, the "Senior Lenders"). In addition, the Inter-American Investment Corporation ("IIC") together with the Corporación Interamericana para el Financiamiento de Infraestructura ("CIFI" and together with the IIC, the "Subordinated Lenders") will extend subordinated loans.
- 1.4 The Borrowers are owned by consortium consisting of Corporacion America S.A. (40%), Grupo San Jose (40%), and Contreras Hermanos S.A. (20%). Corporacion America S.A is diversified Argentinean group with presence in Latin America, Asia and Europe and with over 7.000 employees. It currently operates in manufacturing, energy, infrastructure and agribusiness and is making significant efforts in renewable energy in Argentina, Chile and Uruguay. Grupo San Jose is Spanish group established in 1975 with presence in Europe, America, Asia and Africa. It employs over 3.200 employees. Grupo San Jose has significant expertise in wind farm construction, with over 500 MW installed and also operated in other areas such as real estate, energy and concessions. Contreras Hermanos S.A is an Argentinean group with an over 50 year track record in engineering, infrastructure, oil & gas (over 10,000km of pipelines installed), mining, energy and concessions. It has presence in southern cone of Latin America and employs 7.200 employees.

II. PROJECT DESCRIPTION

A. **Project Components**

2.1 The "Project" consists of the construction, operation and maintenance of a 50 MW wind farm (Carape I) and a 40 MW wind farm (Carape II), also referred to as Fingano and Vengano, respectively, and their associated facilities to be constructed in a zone of high wind potential in the Carape Hills, north of the City of San Carlos in the Departamento de Maldonado, Uruguay (see Figure 1). The Project site lies approximately 20 km south of

¹ The Transaction Consultation Document approved by non-objection of the China Co-Financing

Fund for Latin America and the Caribbean on May 14, 2013

the City of Aigua, approximate population 3,000 individuals (see Figure 2). The wind project areas lie on adjacent land areas (the Carape I site lies directly north of the Carape II site) between Route 39 and Route 109, approximately seven km to the east of Route 39 and approximately four km to the west of Route 109. The information provided below has been obtained from the EIAs for the Fingano and Vengano projects.



Figure 1. Project Vicinity





2.2 The Project encompasses the installation or construction of the following components: i) installation of 17 wind turbines (Vestas V112) with a nominal capacity of 3.0 MW each (Carape I - Fingano) and installation of 14 wind turbines (Vestas V112) with a nominal capacity of 3.0 MW each (Carape II - Vengano); ii) construction of one substation, which will be shared by both facilities iii) a shared 39 km-long, 150 kV transmission line to connect the wind farm to the national grid; iv) several smaller underground low-tension

transmission lines within the wind project area; and v) construction of access roads to be used for construction, maintenance and service within the wind project area (see Figure 3 for Site Layout).

a) Wind Turbines: The 31 Vestas V112 wind turbines to be installed on the site will have a tower height of 84 m and a rotor diameter of 112 m (see Figure 3 for site layout). Each rotor contains three blades and has a swept area of approximately 9,852 m². The V112 has a start-up wind speed of 3 m/s and a cut-out wind speed of 25 m/s, with a recut-in speed of 23 m/s. The turbines will each occupy an area of 0.11 ha for the foundation. A total of 3.41 ha will be occupied by the 31 turbines and a small area surrounding each turbine will be cleared for service and maintenance at each turbine location. Each generator will require a work platform of approximately 2,100 m² and will include a concrete foundation roughly 20 m in diameter and 2 m deep. Concrete for the foundations will be supplied from an existing batch plant in Aigua. Approximately 500 m³ of material will be excavated at each turbine site to prepare the foundation and work platform.

b) Substation: One, shared substation will be constructed for the Fingano and Vengano projects. It will be constructed on the Fingano site and will be owned by Fingano S.A. The Project substation (31.5 kV/150 kV) will be constructed to support the Project and will serve as the connection to the national grid. The substation will occupy an area of approximately 0.5 ha. A security fence will be installed around the substation.

c) Transmission Line: A 39 km-long 150 kV above ground transmission line will connect the Project (Fingano and Vengano) to the Uruguayan national grid (UTE). A separate EIA was prepared for the transmission line. Negotiations with the land owners along the transmission line have not yet occurred in order to agree land lease terms. The consultation and negotiation process for the transmission line will be conducted by UTE; due to the length of transmission line, approximately 66 parcels are expected to be impacted. According the regulation 349 of the Ministerio de Vivienda Ordenamiento Territorial y Medio Ambiente (2005) consultation for transmission lines below 150 kV is not required in Uruguay; however, the Bank does require consultation with affected parties. The consultation process conducted by the Borrower for the wind project area did include the transmission line alignment will be monitored by the Bank and land lease agreements, when finalized, will be provided to the Bank.

d) Low Tension Underground Transmission Lines: Smaller, low-tension underground transmission lines, each 31.5 kV, will be installed to connect the individual generators to the substation and then into the 150 kV transmission line. These smaller transmission lines will have a total length of 22 km (11 km for Fingano and 11 km for Vengano) and will be buried in trenches 1.2 m deep and between 0.60 m and 1.35 m wide. The alignment of the underground lines will follow the access roads.

e) Access Roads: A total of approximately 30 km of access / maintenance roads, some of which currently exist, will be constructed and/or maintained to allow access of heavy construction equipment and supplies as well as long-term service and maintenance of the wind farm. This includes 11 km of new access roads and 7 km of improvements to existing roads within the Fingano site and 11.25 km of new access roads and 0.7 km of improvements to existing roads within the Vengano site. The access roads will be between 5 m and 11 m wide and will remain unpaved. Rock and other material excavated during the preparation of the turbine foundations will be crushed to be used as base material for the new access roads. Magnesium chloride (bischofita), commonly used dust suppressant, may be applied to the access roads, if needed.

Project Aspect	Carape 1 (Fingano)	Carape 2 (Vengano)	
Capacity /	50 MW / 17 Vestas V112	40 MW / 14 Vestas V112	
Turbines	turbines	turbines	
Total Wind Project	2,135 Ha. (12.16 Ha)	2,135 Ha. (9.33 Ha)	
Area (Disturbed			
Area)			
Substation	Shared substation (31.5/150kV	7) occupying approximately 0.5	
	ha.		
150 kV	shared 39 km-long, 150 kV tran	nsmission line	
Transmission Line			
Low-Tension	11 km	11 km	
Underground			
Transmission Lines			
Access Road (km)	11 km of new road	11.25 km of new road	
(Ha)	7 km of existing road	0.7 km of existing road	
Prefabricated units	12 units (peak during	12 units (peak during	
	construction; will decrease	construction; will decrease	
	after completion of main	after completion of main	
	control building)	control building)	
Ha of disturbance	During construction: 3.7 ha	During construction: 3.0 ha	
at Foundations	(0.22 ha/turbine)	(0.22 ha/turbine)	
	After construction: 1.9 ha(After construction: 1.58 ha(
	0.11 ha/turbine)	0.11 ha/turbine)	
Living quarters	None, workers will be accomme	-	
Offices / Storage	70 m^2	70 m^2	
Hazardous waste	10 m^2	10 m^2	
storage			
Water	5000 l/day - 32 l/person/day	4000 l/day - 25 l/person/day	
Consumption			

(construction)			
Water	100 l/day - 17 l/person/day	80 l/day - 13 l/person/day	
Consumption			
(operations)			
Wastes (non-	Construction – 140 kg	Construction – 110 kg	
hazardous)	Operation -3 kg/day	Operation – 2kg/day	
Wastes (hazardous)	onstruction – 750 kg Construction –550 kg		
	Operation -0 kg	ation -0 kg Operation -0 kg	
Air Emissions (CO ²	143,889 ton CO ₂ /year	3,889 ton CO ₂ /year 115,111 ton CO ₂ /year	
reduction) –			
Estimated			
Number of	Construction – 80-160 Construction – 80-160		
Workers	Operations – 6 on-call maintenance personnel for both facilities		

B. Environmental and Social Setting

- 2.3 The two Carape Project sites are located in the Carape Hills, approximately 45 km north of the City of San Carlos and 20 km south of the City of Aigua in the Departamento de Maldonado in southern Uruguay. The terrain's mountainous topography creates an area rich in wind resources. Other wind power projects have identified the area as a potential development area and additional large-scale wind farms are currently in the development stage in the same general area of southern Uruguay. The Caracoles, Minas I, Palmatir, and Libertador projects are just a few examples of other projects in the general area of southern Uruguay.
- 2.4 According to the two EIAs, the wind project covers an area of approximately 2,135 ha, of which a total of 21.49 ha (approximately 1%) will be permanently affected by the construction of the wind turbines, maintenance roads, internal transmission lines, and the substation. The overall wind project area has already been largely impacted by human activities, primarily agriculture and cattle grazing. The landscape appears to be mostly composed of pasture lands with several eucalyptus and pine plantations that have been planted over the years apparently as small-scale, private agroforestry projects. Recently planted groves of both pine and eucalyptus observed during the February 2013 due diligence mission indicate that the trend of planting a non-native and introduced species for relatively quick harvest and economic gain continues.
- 2.5 The southern border of an Important Bird Area (IBA), the Serranía del Este, lies approximately 1.5 km to the north of the wind project area. The IBA is home to the Carpinterito Enano (*Picumnus nebulosus*) and the Nandu (*Rhea americana*) a flightless bird similar to the ostrich; these two birds are listed as Near Threatened per the IUCN Red List. A bird baseline survey has been conducted in accordance with the Bank's request to conduct bird surveys during one of the two annual migration seasons.

Following the bank's request, the Project contracted an environmental consulting firm, Estudio Ingeniería Ambiental, to conduct a series of four bird surveys on the Project site in order to comply with the Bank's standards for pre-construction surveys. According to the best information available, no migratory routes cross the wind project area; a known migratory route passes much further north of the limit of the wind project area, likely in the northern part of the IBA. Several Nandu individuals were observed during the due diligence mission in a field located a few kilometers from the project area. Due to the short construction period and minimal habitat disturbance the impact to the rhea is expected to be minimal. Little is known concerning how a wind farm may impact the rhea, as such; the Monitoring Plan should include monitoring the number of individuals present in the area and document behavior patterns to determine if the turbines have any significant impact on the species. Since the bird is flightless it does not pose a collision risk.

- 2.6 The EIAs for the Project did not identify any other species of concern; however, survey methods for birds, reptiles, amphibians and mammals did not appear to be adequate. The Borrower was asked, by the Bank, to conduct more thorough surveys for all species. In response to the Bank's request, the Borrower contracted a local consultant with experience in these types of surveys and new surveys (bird, bat, mammal, reptile, and amphibian) have been completed to Bank standards. A few protected bird species were identified on the site; however, analysis of their flight patterns indicates a low risk of collision with turbine blades.
- 2.7 Some small streams exist within the lower areas of the wind project and serve as important drainages for the hilly terrain. Several cattle ponds were also observed on the property. The EIAs did not identify any sensitive species living in or near the stream beds or cattle ponds. Nevertheless, stream beds, cattle ponds and riparian areas are considered to be sensitive environments and will be protected. Engineering design has placed the turbines and other project related infrastructure away from these sensitive areas.
- 2.8 The EIAs did not identify the project area as Critical Natural Habitat; however, the Bank's internal Decision Support System (DSS) has identified the area as Critical Natural Habitat based on information provided from NatureServe and the Nature Conservancy declaring the areas to be "Critical Ecosystems". The two sensitive habitat types include Northern Uruguay Well Drained Grasslands and Uruguayan Mountain Region Scrublands. The protected status is based on the habitat's role in protecting biodiversity as well as the severity of existing threats to the habitats including conversion to croplands, pasturelands, and afforestation with non-native tree species.

Social Setting

- 2.9 The closest cities to the Carape Project areas are Aigua, 20 km to the north, and San Carlos, approximately 45 km to the southwest. The wind project area also includes four cattle ranch properties, all of which have signed land lease agreements with the Borrowers in order to place turbines within the respective properties. There are an additional 66 parcels which will be impacted by the transmission line alignment. UTE will be conducting the negotiations for land use payments to these property owners.
- 2.10 Aigua is a town of approximately 3,000 residents located approximately 20 km north of the project area at the intersection of Route 39 and Route 109. Aigua is a small, tranquil city which boasts modern conveniences such as electricity, telephone, radio, television, sewers, and schools. The town hosts an annual boar hunt which is a national event drawing participants from across the country. The town is located only 40 minutes from the resort city of Punta del Este and draws many hikers and mountain bikers to enjoy scenic trails. As Aigua is the closest city to the wind farm, the majority of the labor required for construction is expected to come from Aigua. Transportation to the Project area will be facilitated by the city's location between two major routes; however, the Project is likely to provide transportation services for workers.
- 2.11 San Carlos has a population approaching 30,000 residents and is located approximately 45 km south of the Project area, also on Route 39 and just south of Route 9. San Carlos is a larger town with even more modern conveniences: better schools and healthcare facilities, entertainment, including movie theatre, a zoo, and a football team. San Carlos and the surrounding areas are known for their agricultural and in particular, cattle ranching industries. Laborers may be sought from San Carlos to work on the Project if a sufficient number of workers cannot be located in Aigua.
- 2.12 The Project area itself is largely uninhabited; however, four domiciles do exist within one km of the wind project area. These four property owners are cattle ranchers and all four have signed land lease agreements with the Borrower. The Borrower has established a 500 meter minimum buffer zone around any house to avoid impacts from noise or the blinking affect associated with wind turbines. The closest turbine to a home site is actually located at a distance of 600 meters.
- 2.13 Another 66 parcels will be impacted by the construction and operation of the transmission line. Under Uruguayan law, UTE is owner and operator of all transmission lines within Uruguay. UTE will be conducting the negotiations for the land use purchase agreements for impacted property owners along the transmission line corridor. This process is underway and is expected to terminate in April 2013.
- 2.14 The local communities depend on agriculture and cattle ranching as the main source of income. Property owners within the wind project area live a very rural lifestyle with fairly large ranch style homes surrounded by vast grazing land. Cattle raised for meat is

the primary source of income in the area; however, land owners in increasing numbers are planting pine and eucalyptus plantations. Some farmers in the area also produce olives, primarily to produce olive oil. All the homes in the immediate vicinity do have electricity, telephone and running water. For access to most social services residents must travel either to Aigua (20 km) or to San Carlos (45 km).

2.15 Indigenous Peoples: There are no indigenous people living within the wind project area, nor within the surrounding communities.

C. Project Schedule and Workforce

- 2.16 Based on information provided in the EIAs and during the due diligence mission, construction on each project is scheduled to begin by April of 2013 with an estimated 15 month construction period. Operations are scheduled to commence on the Fingano facility by the end of July 2014. The Vengano facility is expected to come on-line shortly thereafter.
- 2.17 A workforce of approximately 160 people is expected, on average, with a maximum of 160 employees during peak construction, split between the two facilities. Nearly all of the workforce will be comprised of local workers from the neighboring communities, particularly Aigua, only 20 km away. As the majority of the workforce will be local, no worker camps will be constructed on the site. Prefabricated units will be used to provide workers with changing rooms and a canteen. Due to remote monitoring capabilities of modern wind farms, it is currently anticipated that only six on-call staff will be required during operations for both facilities. These individuals will be present primarily to fulfill any maintenance operations required on equipment.

D. Alternatives Analysis

2.18 The project ESIA only analyzes the preferred alternative, or "the Project"; it does not provide a detailed alternatives analysis. The Project developer did conduct its own internal procedure to identify several alternative site locations and a selection process ensued to identify the preferred alternative. Selection criteria included geographical area which provides optimal wind conditions allowing for the use of 3 MW turbines rather using larger numbers of smaller capacity turbines as well as other factors including land ownership, proximity to existing infrastructure (substations and transmission lines), accessibility, and distance from major human settlements.

III. COMPLIANCE STATUS AND PROJECT STANDARDS

A. Appraisal Process and Local Requirements

3.1 Uruguay Law 16.466/94 Law of Environmental Impact Evaluation and Decree 345/2005 classifies projects and defines the degree of environmental impact evaluation required by

projects. The Direccion Nacional de Medio Ambiente Division Administracion (DINAMA) in Montevideo, granted the Declaration of Environmental Viability for the Carape I Project on 03 February 2011 and for the Carape II Project on 13 August 2012 following a review of the required environmental documentation (Viabilidad Ambiental de Localización). Under these regulations, both the Carape I and Carape II projects have been classified as Category B projects, each thus requiring the preparation and submittal of an Environmental Impact Assessment (EIA). Separate EIAs were prepared and submitted to DINAMA for approval. The environmental license for Fingano was granted by DINAMA on July 22, 2013 while the environmental license for Vengano is still pending; the Vengano EIA was provided to DINAMA on 15 January 2013. The EIAs for both the Fingano and Vengano projects have been provided to the Bank for review. The Ministerio de Industria, Energia, y Mineria (MIEM) granted permission for the Fingano project on 16 October 2012.

B. IDB Safeguard Policies

- 3.2 The Project triggers the following directives of IDB's OP-703 Environmental and Safeguards Policy: B.2, Country Laws and Regulations; B.3, Screening and Classification; B.4, Other Risk Factors; B.5, Environmental Assessment Requirements; B.6., Consultations; B.7, Supervision and Compliance; B.9 Natural Habitats and Cultural Sites; B.10 Hazardous Materials; B.11 Pollution Prevention; and B.15 Co-Financing Operations. The triggering of B.4, Other Risk Factors, relates to processes within the project cycle which will be controlled and conducted by UTE rather than the Borrower (see Table 2 below for details). The OP-702, Disclosure of Information Policy also applies for this Project. Based on available documentation, it is possible that OP-710 on involuntary resettlement will be triggered for this Project due to the number of impacted property owners which may experience economic displacement due to the alignment of the transmission line. It does not appear that any physical resettlement will occur in relation to the Project. Based on available information, the Project had been classified by the Bank as a Category B operation.
- 3.3 Table 2, below, illustrates the Project's capacity to comply with IDB's various policies and directives.

Policy / Directive	Applicable Aspect	Compliance Rationale
OP-703 Environmental and Safeguards Compliance		

Table 2: Compliance with IDB Policies and Directives

B.1 Bank Policies	Compliance with applicable IDB policies	The project is currently fulfilling commitments made to the Bank (see ESAP) in order to be in full compliance with all IDB policies and directives. The implementation of the ESMP will ensure the Project remains in compliance once construction commences and throughout operations.
B.2 Country laws	Compliance with country laws and regulations	The project is currently in full compliance with all Uruguayan laws and regulations. Land lease agreements have been made with the property owners in the wind project area and negotiations are occurring between UTE and land owners along the transmission line alignment. Environmental permits have been obtained for Fingano and are in the final process of completion for Vengano.
B.3 Screening and Classification	Application of appropriate classification	The Project has been screened for its potential environmental and social impacts and has been classified as a Category B operation.
B.4 Other Risk Factors	Third party negotiations	The project will result in economic displacement along the transmission line corridor, which must comply with the Bank's policy on Involuntary Resettlement. The negotiations and compensation will be conducted by UTE, not the Borrower. Land lease / land use contracts with impacted property owners along the transmission line will be provided to the Bank.

B.5 EA Requirements	Application of adequate assessment process	In accordance with both Uruguayan regulations and Bank policies for Category B projects, Environmental Evaluations (Assessments) were prepared for each project. For these projects, individual Declaraciones de Impacto Ambiental (DIAs) were submitted to the government of Uruguay. DINAMA has issued the license for Vengano; the license for Fingano is pending.
B.6 Consultations	Project has undergone appropriate public consultation	The project has conducted two public consultation meetings with the national and local authorities as well as the impacted communities. One meeting was held in Aiguá on December 21, 2011 and the other was held in Montevideo on December 22, 2011. The Project plans to conduct at least one more public consultation meeting to reflect recent changes to the project design. To date, the community supports the operation. Comments from the public have revolved around employment opportunities with the project.
B.7 Supervision and Compliance	Internal supervision and reporting	The Project's ESMP will contain provisions for self-monitoring and supervision, as well as supervision of contractors, in order to maintain a high level of compliance. Additionally, Government entities, as well as the IDB Environmental Safeguards Unit, in cooperation with Co-Lenders, will conduct their own supervision of the project. The Project will submit monthly compliance reports during

		construction and annual compliance reports during operations.
B.8 Transboundary Impacts	N/A	The Project does not impact neighboring countries.
B.9 Natural Habitats and Cultural Sites	Conversion of natural habitat	The project is situated within regional grasslands that have been identified by NatureServe and The Nature Conservancy as critical ecosystems that are important for biodiversity conservation. These habitats are important remnants of once expansive grasslands that are home to several globally threatened bird species. Throughout their range, these grasslands are under substantial threat from conversion to agricultural croplands, afforestation with non-native tree species, and historically from the invasion of non-native pasture species. Consequently, the Bank considers these habitats to be critical natural habitat. This habitat type is abundant throughout Uruguay. Since approximately 126,663 Ha of the defined critical natural habitat exist, the project does not appear present a significant conversion or degradation of critical natural habitat. The Project area current land use is pastureland eliminating the threat of conversion and in order to preserve the wind resources within the Project area, no eucalyptus groves will be planted.
B.10 Hazardous Materials	Waste management	The project's ESMP will provide a strict waste management program.

		Due to the nature of the operation, few hazardous materials are stored on-site during construction (minimal amounts of fuel and paint) and it is envisioned that no hazardous materials will be stored at the facility during operations. A licensed contractor will be contracted to handle the waste management.
B.11 Pollution Prevention	Pollution control and CO ₂ emissions	The project's ESMP will provide measures to control pollution such as sediment run-off. The project will reduce the country's CO ₂ emissions by 259,000 ton CO ₂ /year (estimated for both facilities combined) by providing a source of green energy.
B.12 Projects Under Construction	N/A	The Projects are not currently under construction,
B.13 Non-Investment and Flexible Lending Instruments	N/A	N/A
B.14 Multiple Phase Loans	N/A	N/A
B.15 Co-Financing Operations	Potential presence of other lenders	The Project's ESMP will comply with other lender's policies and assist the Project to maintain a high level of compliance.
B.16 In-Country Systems	N/A	N/A
B.17 Procurement	N/A	N/A
OP-710 Involuntary Resettlement	N/A	No involuntary resettlement in the form of physical displacement will occur as a result of the project;

		however, there will be approximately 66 property owners who will experience economic displacement due to the placement of the transmission line. These negotiations will be conducted by UTE but will need to be in compliance with the Bank's policy on Involuntary Resettlement. The Bank will monitor the negotiation process and review land lease / land	
OP-765 Indigenous	N/A	use agreements.	
Peoples		peoples will be negatively affected by the Project; and no indigenous groups have been identified in surrounding areas.	
OP-704 Disaster Risk Management Policy	N/A	The area is not known to be a disaster risk area.	
OP-270 Gender Equality	Avoiding gender discrimination within the Project or as a result of the Project. Providing opportunities for women.	Women will be incorporated into the labor force when feasible; no gender discrimination will occur due the project. The Project is currently attempting to identify social programs to benefit women and children in the local area.	
OP-102 Access to Information Policy	Project information disclosure	The Project has adequately disseminated information in the local community in radio advertisements and letters to stakeholders. Two public consultation meetings (one local and one in Montevideo) have also occurred; a third may also take place in the local community. IDB will also make relevant Project information available on its	

	website.

C. Project Requirements and Standards

- 3.4 The Borrower does not have an accredited corporate Environmental Management System such as ISO 14001:2004 standards for Environmental Management, or OHSAS 18001:2007 Occupational Health and Safety Management standards; however, the consortium has European roots and has significant experience in the construction and operation of wind facilities.
- 3.5 The Project is in the process of preparing a project-specific Environmental and Social Management Plan (ESMP) as defined in the ESAP. The ESMP will outline the Borrower's environmental and social responsibilities including waste management, traffic management, health, safety and labor, monitoring and auditing. The ESMP will also address specific project location related issues such as erosion control, spoils management, and road safety and will describe any detailed measures required (if any) to mitigate any potential issues.
- 3.6 The Borrower is developing a project-specific Social Support Program and a Community Relations Plan. The company is currently envisioning working with local schools to provide local school children with an opportunity to visit the wind farm (following the completion of all construction activities) in order to learn about wind energy. The Project is also encouraged to identify and promote projects and programs directed at supporting and improving the lives of women and children in the area. The Community Relations Plan contains the initial plans for the development of a Grievance Mechanism which will be implemented and tracked upon finalization of the plan.

IV. KEY ENVIRONMENTAL AND SOCIAL IMPACTS AND RISKS

A. Summary of Key Impacts and Risks

4.1 The primary potentially negative environmental impacts and risks during construction phase will be mainly associated with the erection of the wind turbines, the installation of the transmission line, the substation and the access roads. Main construction impacts are: (i) habitat disturbance; (ii) soil erosion; (iii) dust generation; (iv) increase in heavy traffic; (v) noise; (vi) loss of vegetation; and (vii) occupational health and safety hazards for the workforce. Most of these construction impacts and risk can be adequately mitigated through the implementation of appropriate management plans.

- 4.2 **Transmission Line:** UTE owns and operates all transmission lines within Uruguay and therefore, the routing, permitting, and consultation is controlled by UTE, with some cooperation with the Borrower, and follows a different regulatory process than the wind farm. This process is ongoing and as such the potential site-specific impacts are less defined. Generic potential environmental impacts and risks typically associated with the construction of a transmission line include: disturbance to habitat (flora and fauna) from clearing of the right-of-way, increased soil erosion, increased use of previously inaccessible areas, increase in heavy traffic from construction equipment, increase in dust, increase in noise, risk of collision for birds, conversion of land use with visual impacts, and economic displacement.
- 4.3 Once in operation, the potential main impacts and risks are: (i) bird and bat collision; (ii) barrier effects to movements of birds, both resident and migratory species; (iii) loss of vegetation; (iv) accidental discharges of hazardous materials; (v) community health and safety hazards; (vi) noise impacts caused by the wind turbines; and (vii) blinking effect caused by the turbine blades during dawn and dusk hours.

B. Environmental Impacts and Risks

- 4.4 Potential negative environmental impacts and risks during construction phase will be mainly associated with the erection of the wind turbines, the installation of the transmission line, the substation and the access roads. Main construction impacts are: (i) habitat disturbance; (ii) soil erosion; (iii) dust generation; (iv) increase in heavy traffic; (v) noise; (vi) loss of vegetation; (vii) occupational health and safety hazards for the workforce; and (viii) visual impacts near Uruguay's tallest mountain. Most of these construction impacts and risk can be adequately mitigated through the implementation of appropriate management plans.
- 4.5 **Transmission Line:** UTE owns and operates all transmission lines within Uruguay and therefore, the routing, permitting, and consultation is controlled by UTE and follows a different regulatory process than the wind farm. This process is ongoing and as such the potential site-specific impacts are not yet fully known. Generic potential environmental impacts and risks typically associated with the construction of a transmission line include: disturbance to habitat (flora and fauna) from clearing of the right-of-way, increased soil erosion, increased use of previously inaccessible areas, increase in heavy traffic from construction equipment, increase in dust, risk of collision for birds, and conversion of land use with visual impacts.
- 4.6 Once in operation, main impacts and risks are: (i) bird and bat collision; (ii) barrier effects to movement of birds; (iii) loss of vegetation; (iv) accidental discharges of hazardous materials; (v) community health and safety hazards; (vi) noise impacts caused

by the wind turbines; and (vii) shadow flicker caused by sunlight passing through the moving blades.

- 4.7 One of the potential risks associated with wind power facilities is bird collision. The bird field study conducted in July 2011, outside of the migratory seasons, registered only 18 species of birds within the wind project area (0.4% of the 446 bird species registered in Uruguay). Desktop studies from other nearby areas, however, indicated the potential presence of a significantly higher number of bird species in the project area, approximately 230. Additional surveys were requested by the Bank in order to provide more reliable baseline date. The project has contracted a local consulting firm capable of conducting these surveys. The consultant was hired to conduct a series of four field visits, starting in December 2012 and incorporating ten days of field activities during the fall (April/May) migration period. Several species were either identified on the project area or have been registered in the area during previous surveys including four species, listed as sensitive on the IUCN Red List of Species: Limnoctites rectirostris and Rhea americana (both listed as Near Threatened by the IUCN) as well as the Sporophila cinnamomea and Heteroxolmis dominicana (both listed as Vulnerable by the IUCN). Based on flight elevation observations collected during the surveys, none of these species pose a high, or even medium, risk of collision with turbine blades due to their relatively low elevation flight patterns. Some night-time migratory species were observed during the surveys; however, since the wind project area does not lie within any migratory routes or important fly-ways, the risk of collision to migratory birds is expected to be low as the numbers of individuals traversing the area will be low. The post-construction monitoring will help in determining the risk of collision during actual operations. Should collision rates be high during operations, mitigation measures such as changes in cut-in speed or mandatory temporary shutdowns could be implemented.
- 4.8 Bats also face collision risk, and other risks, associated with wind farms; in fact, the incidence of bat mortality is generally higher for bats than birds, presumably because bats seem to be attracted to wind generators. Several theories exist for this phenomenon including: the bats view the tower as a potential roost site, dead insects on and near the generator are seen as an easy food source, the bats are attracted to the heat produced by the generator, and the sound and electromagnetism produced by the generator disrupts their echolocation. Additionally, bats face barotrauma, a condition resulting from a sudden change in atmospheric pressure (such as encountered near the rotor of an operational turbine), which causes their fragile lungs to expand beyond capacity leading to death. Bat field surveys were not conducted in conjunction with the EIA and no caves were observed during field visits. Desktop reviews from other nearby projects identified several species (of the 20 species known to exist in Uruguay) with potential to exist within the wind project area. None of these species appear as threatened or vulnerable on the IUCN List of Red Book Species; however, due to lack of accurate data, the Bank

requested the completion of additional surveys. Additional bat surveys were conducted in December 2012 and 14 individuals representing two different species were captured. During the fall (April/May 2013) surveys, 20 individuals representing three species were captured and another species were identified by their calls using a sonic detection device. None of the species observed on the site is considered sensitive according to the IUCN. As with birds, the mortality to bats due to collisions with generators should be closely monitored and reported during operations.

- 4.9 The EIA did not identify any species of amphibians and reptiles occurring within the wind project area and it appears that no surveys were conducted during the field efforts which primarily focused on birds. Additional surveys for reptiles and amphibians as well as other species were requested. The Project hired a consulting firm to conduct reptile and amphibian surveys along with the other bird and bat surveys. Additional surveys were conducted in December 2012 and ten different species of reptiles and amphibians were observed within the project area, none of which are listed as sensitive by the IUCN. The second round of surveys conducted in April/May 2013 identified four additional amphibian species to bring the total to 13 species of amphibians. During these surveys, two additional reptiles species were also identified bringing the total to three. While none of these species are considered protected by IUCN, it was noted that several other species which are listed as sensitive by the IUCN and some of which are venomous (rattlesnakes) are likely to occur on the site based on existing registries. Environmental training should be provided to all workers to help identify these species and understand both the dangers associated with these species as well as their protected status. A procedure should be established to outline actions to be taken to protect the workers and the animal during an encounter with these species.
- 4.10 The barrier effects are related to displacement. Displacement occurs when a species decreases or discontinues use of an area due to a human activity. The level of barrier effect depends on species, turbine layout, the species ability to compensate for losses in energy due to avoidance, and most importantly, the size of the wind facility and the presence of other wind farms in the region. The proposed project will have 31 towers and is not located near other known planned wind farms. In addition, it does not appear that the wind project area is crossed by any avian migratory routes. As such, the barrier effect should not be significant.
- 4.11 Another impact will be the loss of vegetation within the project area and along the new access roads and the 39 km transmission line. As mentioned previously, much of the habitat has been previously significantly impacted by human activities. While the majority of wind project area has been converted to pasture lands, there are some stands of native vegetation and exotic tree species which may provide nesting habitat to various species of birds; these stands will be avoided during construction. The transmission line

alignment also lies within modified pasturelands; however, the removal of some large vegetation is more likely.

- 4.12 Maintenance activities during operation may cause accidental discharge of hazardous materials (e.g. from changing the oil in the generator, fuel leaks from maintenance vehicles or paint spills) or trigger occupational health and safety concerns (working at heights). These potential impacts and risks are easily managed and will be addressed in the Environmental Management Plan.
- 4.13 Community health and safety hazards specific to wind energy facilities primarily include: aircraft navigation safety; electromagnetic interference; and radiation. The potential of such hazards is not considered significant in the context of the Project since affected communities will continue their economic activities (grazing and agriculture) on the land where the Project is located. Increased community health and safety hazards related to public access may not be insignificant, and will need to be adequately addressed in the Project's Environmental Management Plan, including adopting appropriate risk prevention procedures and emergency planning during construction and maintenance activities.
- 4.14 Potential noise impacts caused by the wind turbines during operation on adjacent communities are not expected to be significant; however, there are some existing home sites within the Project area and near planned turbine locations (the closest in approximately 600 m) which may require mitigation. Based on the noise study, which represents a worst-case scenario, four home sites may experience noise levels higher than the acceptable standard for night time of 45 dBA and may require mitigation to reduce noise levels around these four residences. Noise levels for all homes are within an acceptable range of day time hours. Noise levels will be further verified through the periodic monitoring of noise level to be carried out during the Project's operation, including at the site's boundaries. Appropriate mitigation measures will be applied should noise levels exceed accepted standards.
- 4.15 The project is situated within regional grasslands that have been identified by NatureServe and The Nature Conservancy as critical ecosystems that are important for biodiversity conservation. These habitats are important remnants of once expansive grasslands that are home to several globally threatened bird species. Throughout their range, these grasslands are under substantial threat from conversion to agricultural croplands, afforestation with non-native tree species, and historically from the invasion of non-native pasture species. Consequently, the Bank considers these habitats to be critical natural habitat. This habitat type is abundant throughout Uruguay. Since approximately 126,663 Ha of the defined critical natural habitat exist, the project does not appear present a significant conversion or degradation of critical natural habitat. The Project area

current land use is pastureland eliminating the threat of conversion and in order to preserve the wind resources within the Project area, no eucalyptus groves will be planted

C. Social Impacts and Risks

4.16 Land Acquisition and Physical Displacement: The Project has already identified and secured the land required to install the turbines, substation, underground transmission lines, and access roads. These portions of the Project do not lead to any physical displacement or resettlement. Land contract lease agreements have been signed with the four individual land owners (all cattle ranchers) where the turbines, substation, underground transmission lines, and access roads will be located. The compensation package is consistent with IDB policies and offers a fair payment per ha disturbed, as well as a payment per turbine sited on the property. The main transmission line (39 km of 150 kV line) has been approved and land lease / land use agreements are being negotiated. Approximately 66 parcels (slightly less actual land owners) will be affected and no physical resettlement will occur; however, several of these owners may experience economic displacement as they lose the ability to farm portions of their land. Land lease agreements will have to be negotiated with the property owners. The Bank has requested to be updated on the negotiation process, to be conducted by UTE, as it progresses.

D. Cumulative Impacts

4.17 Cumulative impacts may exist in areas where multiple wind projects have been, or will be, constructed in close proximity to each other and within established migratory routes and corridors, or within sensitive areas. Although there are currently no other wind farms in the immediate vicinity, with the growing number of turbines planned to be erected in the area in the near future, the risk and concern of cumulative impacts also grows. Currently, any cumulative impact study relating to bird collisions with wind turbines, anywhere in the world, has been inconclusive due to the lack of data shared or otherwise obtained from the various wind farms in operation. Data for the monitoring efforts of this Project, as well as other projects will be helpful in determining the extent of cumulative impact is found to be significant.

E. Positive Impacts

4.18 The Projects will likely result in net positive benefits for the nearby communities as well as the country, in general. The Project, during construction phase, will provide direct employment to approximately 200 workers. A preference for workers from local communities will be provided.

- 4.19 Both Projects will be tied into the Uruguayan national grid, thus providing cleaner energy to the nation and reducing the carbon footprint of energy generation in Uruguay. The Fingano project is expected to result in an estimated savings of 143,889 tCO₂/year, through the displacement of thermal power generation, while Vengano will save approximately 115,111 tCO₂/year.
- 4.20 The Project is currently working with the community and local officials including the mayor of the nearest town to identify potential social programs which the Project can support. Preference will be given to social programs which benefit women and children. School field trips, as well as site visitations for other visitors, are envisioned for the future when the wind farms are in full operation to teach school children and the community about wind energy.

V. MANAGEMENT AND MONITORING OF ENVIRONMENTAL, SOCIAL, HEALTH AND SAFETY AND LABOR IMPACTS AND RISKS

A. Description of Management Systems and Plans

- 5.1 Both wind power plants will operate under the same ESMP, which will be developed according to the requirements established by the Uruguayan legislation and in line with the Bank's policies regarding Environmental Management Systems. The ESMP will include regular monitoring of the facilities and monthly reports will be prepared during construction concerning noise, air emissions, traffic issues, waste management, health, safety and labor performance, trainings, as well as other issues. Detailed logs will be maintained to document worker trainings, worker health certificates, work site incidents and accidents, waste registers, and vehicle maintenance. A monthly report will be provided to the Bank during construction and annual reports will be provided during operations.
- 5.2 The most relevant social activities implemented by the Borrower to develop a good relationship with the local communities include:
 - i. Public Consultations. The Project has already conducted two public consultation meetings with community members and local authorities. The consultation sessions were conducted locally and in Montevideo and provided an opportunity for interested people to learn about the project and have their doubts and concerns addressed by company representatives. The Project plans to conduct one more public consultation meeting in the local community, to discuss changes in the project design, mainly a reduction in the number of turbines to be installed. Details of the transmission line alignment were included during the consultations.
 - ii. Grievance Mechanism. The Project will implement a Grievance Mechanism to allow stakeholders an opportunity to voice their opinions, concerns, complaint, or

comments outside of the public consultation meetings. These comments will be recorded, as well as the Project's responses to these comments. Issues will be tracked to determine how the Project responds to complaints and works with the complainant to resolve outstanding issues. The Grievance Mechanism will be accessible to individuals impacted by the wind farm and the transmission line.

- iii. Community Relations Plan. The coverage of this plan includes both wind farms and the transmission line. Its goal is to establish community participation mechanisms and build positive relationships with interested groups to avoid or minimize potential social conflict situations during project execution. This plan provides both a general framework and specific procedural guidance for a continuous dialogue between the local population and representatives of the company.
- iv. Potential Social Programs. The Borrower is in the process of identifying potential social programs to support in the area. The Project will give precedence to social programs or projects which benefit women and children in the local communities.

B. Monitoring and Supervision

- 5.3 This project includes different levels of supervision. The most relevant ones include (i) Internal project supervision, conducted by the Borrower's environment team and defined within the ESMP; (ii) Bank supervision, carried out regularly by the project team with the support of specialized consultants as needed; and (iii) inspections from DINAMA, an entity of the Uruguayan Government responsible for enforcement of compliance with environmental laws and regulations.
- 5.4 The Borrower will conduct monthly internal audits and send monthly reports to the Lenders. The Bank, in coordination with other co-lenders, will conduct semi-annual supervision missions during the construction phase and annual supervision missions during operations to assess compliance with Bank policies. .DINAMA has the right to conduct unannounced site audits of all projects to ensure all environmental conditions are met.
- 5.5 The Borrower is currently preparing a detailed monitoring regime which will include surveys for birds and bats to assess the impacts of collisions to these species. The Borrower will work with the Bank and DINAMA to ensure monitoring protocols are compatible with both Bank policies and DINAMA requirements for wind farms in operation.

C. Indicators

5.6 In the case of environmental indicators, the projects will be assessed in terms of compliance with the IDB Safeguard Policies and compliance with local regulations. The annual report provided by the Borrower will detail vital information including calculated reduction of CO₂ emissions. Based on current energy production in Uruguay, the Carape

I and II Projects, combined are expected to create a reduction of approximately 259,000 ton CO_2 /year; the development goal is a combined reduction of 259,000 tons CO_2 /year. Carbon reductions will be directly related to the amount of energy generated, of which, an estimated 364.7 GWh is anticipated.

5.7 In the case of the social support programs, potential projects or programs must be identified through consultation with local authorities and community groups. Following project identification, a chronogram of activities will be developed which will include a list of components, specific activities for each component, and expected results. Results of the social programs will be reported in the semi-annual environmental and social monitoring reports

VI. REQUIREMENTS TO BE INCLUDED IN THE LEGAL AGREEMENTS

6.1 Based on the ESDD conclusions, the conditions described below are required to be fulfilled for the Project prior to loan approval/financial close and throughout the life of the loan, in form and substance satisfactory to IDB:

Throughout the Life of the Loan

- 6.2 The IDB will require within its Loan Agreement that the Project and each Project party (Sponsor/Borrower/Company) and other Project/Environmental parties, including construction companies and operators, and any contractors and sub-contractors will, at all times during the life of the Loan Agreement, comply with the following requirements:
- 1. All applicable environmental, social, health and safety, and labor regulatory requirements of Uruguay.
- 2. All requirements associated with any environmental, social, health and safety, and labor related permits, authorizations, or licenses that apply to the Project, the Borrower or any party responsible for executing the Project or its mitigation measures.
- 3. All environmental, social, health and safety, and labor requirements of the Project contracts and any subsequent modifications.
- 4. All aspects and components of all of the Project's environmental, health and safety, social and labor documents.
- 5. All relevant IDB policies such as the Environment and Safeguards Compliance Policy (OP-703), the Disaster Risk Management Policy (OP-704) and the Disclosure of Information Policy (OP-102), the Involuntary Resettlement policy (OP-710), the Operational Policy on Indigenous Peoples (OP-765) and the Gender and Equity in Development Policy (OP-270) and their respective guidelines.

6. Comply with all the requirements indicated in the Environmental, Health and Safety Action Plan.

Prior to First Disbursement

- 6.3 The Project will develop and implement a project specific ESMP to assess and mitigate the negative impacts associated with the Project. The ESMP will include a defined monitoring and supervision regime. All project contractors will also be required to comply with the actions described in the ESMP.
- 6.4 The Project will appoint an Environmental and Social Specialist (new hire or designate existing employee) for the duration of the construction period to prevent and manage potential impacts and supervise and monitor mitigation measures. The Borrower shall present to the Bank an updated organizational chart illustrating roles and responsibilities throughout the project cycle.
- 6.5 The Project will conduct community engagement activities with local authorities and community groups to identify and implement potential social programs. The Project will look specifically to support social programs directed at benefitting local women and children.
- 6.6 The Project will develop and submit to the Bank an Emergency Response Plan / Contingency Plan / Evacuation Plan.
- 6.7 The Project shall demonstrate to the Bank that all pending land use permits have been obtained. Copies of relevant permits, contracts, and agreements shall be submitted to the Bank.

Prior to Each Disbursement

6.8 The Sponsor/Borrower/Company shall certify compliance with all environmental social, health and safety and labor requirements in the loan agreement, including any Corrective Action Plans if applicable.

Prior to Construction

- 6.9 The Borrower shall develop and implement a grievance mechanism that corresponds to best industry practices (IFC Good Practice Note, Addressing Grievances From Project-affected Communities, dated September 2009) for the public, including those affected by the transmission line.
- 6.10 The Borrower shall incorporate into all contractors' contracts clear regulations and penalties for non- compliance with policies, plans and programs (including mitigation measures) adopted by the company. This will include clear procedures and timing for reporting environmental, health and safety related incidents/accidents and a specific

monitoring program to assess causes of incidents/accidents and track performance of the corrective measures. The Company shall provide evidence of supervision and oversight of the contractors.

6.11 The Project shall present report detailing the remediation and protection of the various cultural sites and present final clearance from Government to IDB. The report shall also detail the establishment of a Chance Find Procedure to be implemented throughout the construction period.

Prior to Operations

- 6.12 The Project will develop and implement a project specific ESMP for Operations to assess and mitigate the negative impacts associated with the Project during the operations phase. The ESMP will include a defined monitoring and supervision regime. All project contractors will also be required to comply with the actions described in the ESMP.
- 6.13 The project will develop a Bird and Bat Monitoring Protocol to be approved by the Bank. At a minimum, the bird and bat monitoring and related activities will be initially conducted for a period of two years following the start of operations of the Project. Depending on the survey results the Bank may decide to continue the bird and bat monitoring for additional years.
- 6.14 The IDB or an Environmental and Social consultant appointed by the IDB shall certify compliance with all environmental and social requirements of the loan agreement including any Corrective Action Plans if applicable.

ANNEX I: PHOTO LOG – CARAPE I and CARAPE II WIND POWER PLANTS



Figure 1: Overall view of wind project area



Figure 2: Wind measurement mast on project site



Figure 3: Second wind measurement mast



Figure 4: Planned location of turbine # 9



Figure 5: Planned location of turbine #8



Figure 6: Archaeological site to be protected within the wind project area

ANNEX II: ENVIRONMENTAL AND SOCIAL ACTION PLAN

Carape Wind Power Project – Environmental and Social Action Plan

September 2013

Key items	Actions/Deliverables	Deadline	Status/Details
1. Environmental and Social Ma	anagement System / Plan de Gestión Ambiental		
Policies			
Current policies need to be expanded	1.1 Expand the existing Plan de Gestion Ambiental (wastewater, waste, noise emissions, hazardous chemicals, soil conservation, restoration)	Prior to Board	Action completed
	1.2 Develop specific procedures for contractors (supervision and enforcement mechanism)		Action completed
Organizational Capacity			L
The current in-house staff capacity is insufficient to address potential issues	 1.3 Appoint an Environmental and Social Specialist (new hire or designate existing employee) to prevent and manage potential impacts and supervise and monitor mitigation measures. *The client shall present an organization chart of the current staff (positions and responsibilities) 	Prior to Board	Action completed
Stakeholder Engagement			
DisclosureofinformationandConsultationConsultation activities have focused on the wind park; communities have not	1.4 Work with UTE throughout the consultation process with impacted land owners and inform the Lenders of progress	Immediately following first consultation / Continuous	Ongoing – consultation will continue throughout construction
been consulted on the transmission line.	1.5 Develop a grievance mechanism that corresponds to best industry practices (IFC Good Practice Note, Addressing grievances from project-affected communities, dated September 2009) for the public, including	Prior to Board	Action completed

Key items	Actions/Deliverables	Deadline	Status/Details
	those affected by the transmission line		
	1.6 Disclose the grievance mechanism to local authorities		Action completed
	1.7 Disseminate the procedure to follow to make a claim under the grievance mechanism and provide training if required		Action completed
	1.8 Set up a focal point (Environmental and Social Specialist) to address claims during construction		Action completed
Management Programs			
Emergence Response Plan or Contingency Plan has not been developed	 Submit in substance and form satisfactory to IDB the following plans: 1.9 Emergency Response Plan / Contingency Plan (specifically to address uncontrolled fires) 	Prior to Board	Action completed
Permitting / Licenses			I
Environmental Permit	1.10 The Borrower shall present to the Lenders, the environmental permits from DINAMA for the Wind Farm (Fingano and Vengano)	Prior to First Disbursement	Action completed for Fingano; Environmental permit pending for Vengano
Environmental Permit	1.11 The Borrower shall present to the Lenders, the environmental permit from Dinama for the Transmission Line	Prior to First Disbursement	Action completed for Fingano; Environmental permit pending for Vengano
2. Labor and Working Condition	ns	I	
Improvements are required so the project is aligned with best industry practices in terms of health and safety	2.1 Incorporate in contractors' contracts clear regulations and penalties for non- compliance with policies, plans and programs such as the ILO Core Labor Standards (including mitigation measures) adopted by the	Prior to Board	Action completed

Key items	Actions/Deliverables	Deadline	Status/Details
of workers and affected communities	company		
	2.2 Define with contractors clear procedures for reporting environmental, health and safety related incidents/accidents		Action completed
	2.3 Develop a specific monitoring program to assess causes of incidents/accidents and track performance of the corrective measures		Action completed
	2.4 Provide evidence of supervision and oversight of the contractors by the company.	Ongoing basis	The Project will submit biannual monitoring reports to the Bank. The Bank or an independent environmental and social consultant will be asked to comment on this aspect in monitoring reports
3. Land Acquisition and Econon	nic Displacement		
Land negotiations for the Right-of- Way of the transmission line are still pending	 3.1 Present the updated land acquisitions arrangements according to final project's layout 3.2 Work with UTE to finalize negotiations of right of way for the transmission line 	Prior to First Disbursement	Agreements in place for wind farm area, process on-going with UTE for
	3.3 Demonstrate that all pending land use permits have been obtained		transmission line
There is no compensation plan or land lease agreements for property owners	3.4 Complete land lease agreements with affected land owners along the transmission line alignment and submit agreements to the Lenders	Prior to First Disbursement	Process on-going with UTE for transmission line

Key items	Actions/Deliverables	Deadline	Status/Details
Birds			
Bird Survey	4.1 The company will conduct bird surveys during the migratory season including analysis of impacts particularly identifying protected species and inhabitants of the Serrania del Este IBA, numbers of individuals, behavior, direction of flight, altitude, and a Cumulative Impacts Assessment.	Prior to Board	Action completed
Bird Monitoring Program for operations has not been developed	 4.2 The company will implement a post-construction Monitoring Program for birds. *Prior to start the monitoring, the protocol to be followed (if not IDB's) shall be presented to IDB for validation. *Based on the results, the post- construction monitoring may be extended beyond 2 years 	Prior to First Disbursement / Ongoing	Status will be determined during monitoring
Bats		<u> </u>	
Bat Monitoring Program for operations has not been developed	 4.3 The company will implement a post-construction Monitoring Program for bats. *Prior to start the monitoring, the protocol to be followed shall be presented to IDB for validation. *Based on the results, the post- construction monitoring may be extended beyond 2 years 	Prior to First Disbursement / Ongoing	Status will be determined during monitoring
5. Consultations	1	L	<u> </u>
Public consultation meetings including Wind Farm and Transmission Line.	5.1 Submit to the Lenders meeting minutes, attendance records, and video recordings of the two public consultation meetings	Prior to Board	Action completed