

El Resumen de la Revisión Ambiental y Social está disponible en la página en inglés y en breve se publicará en español.

## **1. Overview of Scope of IIC E&S Review**

The proposed transaction entails an up to US\$20 million A loan under a project finance structure to Central Puerto (CP) Achiras S.A. (Achiras or the Company) to develop a greenfield 48 MW wind farm located 7 km southwest of the city of Achiras, in the province of Cordoba (the Project). The company, a wholly owned subsidiary of Central Puerto, S.A. (CP or the Sponsor), will sell 100% of its output to *Compañía Administradora del Mercado Eléctrico, S.A.* (CAMMESA), an Argentine mixed capital company owned in equal parts by large users, generators, transmission and distribution companies and by the Ministry of Energy and Mines under a 20-year Power Purchase Agreement (PPA). The total Project cost is estimated at US\$81.1 million. The Achiras project is the second project awarded to CP in Argentina's Renovar auctions.

The project is expected to consist of fifteen 3.2 MW wind turbines, a new 33/132 kV substation and approximately 17 km of new double-circuit 132 kV transmission line to connect the project to the Villa Mercedes-Rio Cuarto grid node. The sponsor has signed an MOU with Acciona Windpower for turbine supply and installation. The main construction contractor will be Milicic and the owner's engineer will be Ventus. Construction of the project is expected to begin in the second quarter of 2017 and operations are expected to begin in mid-2018. The project is expected to require around 110 workers during peak construction, and around 6 workers during operations.

An Environmental and Social (E&S) due diligence visit was conducted on March 31, 2017 by IIC and IFC teams, including an expert ornithologist specifically hired for mission. Prior to this visit, the teams had reviewed the project's EIA study. The representatives of the financial entities were accompanied by personnel responsible for Central Puerto S.A., responsible for the environmental, social and health and safety management of the company and the head of the project for the future wind farm.

## **2. Environmental and Social Categorization and Rationale:**

According to the IIC's Environmental and Social Sustainability Policy, the project has been categorized B as it expected to pose risks and impacts that are site specific and can be managed through the application of internationally recognized standard practices for this type of project. Key E&S issues are expected to include establishment of suitable company and EPC contractor E&S capacity and management procedures prior to construction, roll out of Human Resources (HR) policies and procedures, including Health & Safety, to all workers and construction contractors, waste and traffic management during construction, and post-construction bird monitoring during operations.

## **3. Environmental and Social Context:**

The municipality that has jurisdiction over the project is the Pedanía Achiras. The project area is 28.7 km from the Municipality of Achiras by road and 7 km measured in a straight line. The closest settlement to the project site is the town of Achiras, with 2,287 inhabitants, located 28.7 km by road. There are no communities located in the vicinity of the project site. The project land area had been allocated 55% to agricultural use, with soybean and fallow crops predominating (lots where nothing has been planted for at least a year and weeds have developed). In the remaining 45% the ecosystem of grasslands or natural pastures is developed for the grazing of cattle, horses and sheep (no farming is practiced in the vicinity of the wind farm): within the site there are practically no trees, except for a cluster of pines that surround a small disused house. There are no protected areas,

nature reserves or national parks in the vicinity of the project, nor are there any Important Bird Areas (IBAs) nearby.

#### **4. Environmental Risks and Impacts and Proposed Mitigation and Compensation Measures:**

##### **4.1 Assessment and Management of Environmental and Social Risks and Impacts**

###### *Environmental and Social Management System*

CP has an integrated management system certified under international standards ISO 14.001 (environmental management), ISO 9.001 (quality management) and OHSAS 18.001 (health and occupational safety management), applied to its thermal and hydroelectric activities throughout Argentina. The project will be managed within the framework of this integrated management system. The organizational and functional structure of the integrated system is aligned with the IFC PS 1.

###### *ESHS Policy*

CP has a Code of Business Conduct, a Mission and Vision Statement, a Corporate Governance Code, an Integrated Policy (Environment, Quality, Safety, Hygiene and Occupational Health) and a Human Resources (HR) policy. The Integrated Policy provides a general statement on the principles guiding all activities managed by the company. In general terms, the principles and objectives of these documents are consistent with the IFC PS 1. Notwithstanding this, CP will establish a project-specific E&S policy that, in addition to being in line with the Integrated Policy of Central Puerto SA, includes elements of a social nature, mechanisms for receiving and resolving labor and third party complaints, and responds to third party information requests and other key considerations identified in PS 1 (as outlined in ESAP action 1).

###### *Identification of risks and impacts*

E&S risks and Impacts for the construction phase of the project include those associated with the transportation of equipment and workers from the port of Bahía Blanca to the project site; traffic impacts; those associated with typical civil construction works (soil compaction, erosion, potential soil and groundwater contamination from hydrocarbon spills, vehicle emissions and dust generation). The most relevant health and safety risks will be those associated with work at heights, lifting loads, working in confined spaces, and risk of falling objects. Areas for the extraction of materials for civil works are not located in the Achiras area; sand will be extracted in Río Cuarto and stone from Berrotarán (80 km away) will be transported by truck to the site of the project. Typical E&S risks and impacts during the operations phase include risks to bird and bats arising from turbine operation and safety risks for workers, especially falls from height and electrical risks. Noise and shadow flicker effects are not expected to be relevant due to the absence of habitation or sensitive habitats near the project site.

Project risks and impacts were partially identified in the ESIA. CP will ensure that risks and impacts identified during lenders due diligence, and discussed in this report, as well as all ESHS risks identified during construction phase are appropriately communicated to contractors. CP will prepare an ESHS risk matrix identification (ESAP - Condition 3 - ii)

Although the original EIA of the project was approved by the Secretariat of Environment and Climate Change of the Province of Córdoba, an Addendum to the study will be submitted. The reason for the Addendum is due to the following changes made to the project: each generator will

deliver a power of 3.2 MW instead of 3 MW as planned; the number of generators shall be 15 and not 16; the total potential delivered by the park will then be 48 MW; the 33 KV line between generators will be aerial and not buried and the high voltage transmission line will be a double-circuit line, not a single circuit line as originally envisaged.. At the moment of preparing this report CP had not submitted to the environmental authority all the documentation required in the environmental license; CP shall submit this documentation in the short term (ESAP action 2).

### *Organizational capacity and competency*

During construction, CP will supervise all contractors (including environmental and occupational health and safety performance) by designating a team of experienced professionals. The sponsor has assigned an environmental manager and an occupational health and safety manager to work alongside Ventus, the project's technical supervising firm, during construction. The project construction contractors will be required to develop their own environmental and health and safety management plans and have their own E&S managers; these contractor management plans shall be consistent with CP's Environmental and Social Management Plan; CP will establish an Environmental and Health and Safety Committee, led by Ventus, for ensuring the alignment of the contractors' management plans with the CP's Environmental and Social Management Plan. The main contractors include construction company Milicic, and turbine supplier Acciona.

### *Training program*

CP will prepare and implement a training program, aimed at raising contractors and subcontractors' awareness on environmental, social, health and safety aspects of the Project, including emergency situations and issues related to communities' relationships and archaeological findings management (ESAP - Condition 3 - iv)

### *Monitoring and review*

As part of the ESHS Management Plan CP will develop and implement a Monitoring and Supervision Plan, prepared both for construction and operation phases, and aimed at: i) monitoring and measuring effectiveness of the ESHS management; ii) monitoring environmental and working conditions; iii) monitoring health programs; iv) monitoring legal compliance and v) monitoring and supervising contractors and subcontractors' activities during the construction phase. The Monitoring and Supervision Plan will involve the active participation of project contractors and subcontractors (ESAP Condition 3 - v). Although impacts on bird and bats are considered not relevant for this project, a related baseline and monitoring program shall be carried out by CP and included in the ESHS Monitoring and Supervision Plan.

### *Emergency preparedness and response*

CP will require the construction company prepares an Emergency Preparedness and Response Plan. This plan will include, in addition to measures aimed at protecting the life of workers and project facilities, considerations aimed at protecting the health and safety of neighboring communities and visitors to the project site. Protocols to be implemented by the project managers in case of an emergency and the necessary arrangements with the emergency services will be defined. The most relevant typical emergency conditions are: plant fires due to electrical failure or lightning strike, destruction of rotors by hurricanes or fires in the surrounding area (e.g. via burning of grasslands). CP will also require the operator to prepare an Emergency Preparedness and Response plan for the operation phase (ESAP Condition 3 - viii).

### *Stakeholder engagement*

There are no people living in the immediate vicinity of the project site, as noted in the project description, with the nearest settlement (Achiras) located more than 25 km away. CP has identified and established good relations with the owners of the land neighboring the project site, and has allowed the former owner of the project land to continue farming and livestock activities on the property until construction begins. Although no affected communities have been identified, CP will, in addition to participating in public meetings in Achiras, establish an external communication mechanism and assign a person (e.g. E&S Officer) to interface with landowners, the Achiras Municipality and any other project stakeholders who show interest in the project. This officer will also be responsible for responding to questions and/or grievances raised by third parties in connection with the project. (ESAP Action 8).

A meeting was held with the Mayor of Achiras during the site visit. The Mayor does not expect the project to generate negative environmental impacts on Achiras, and stated that (i) the wind farm is well accepted by the majority of the community, which sees it as a potential tourist attraction; (ii) the project is generally well known; and (iii) a public meeting(s) on the project has been planned with members of the council of Achiras and with the town community in general.

#### *Informed consultation and participation*

As no affected communities have been identified for this project, a full stakeholder engagement plan and grievance mechanism is not warranted. Instead (as indicated in ESAP action 14), the company will, in addition to participating in public meetings in Achiras mentioned above, establish an external communication mechanism and assign a person (e.g. E&S Officer) to interface with landowners, the Achiras municipality and any other project stakeholders who show interest in the project. This officer will also be responsible for responding to questions and/or grievances raised by third parties in connection with the project.

## **4.2 Labor and Working Conditions**

The construction phase of the project is expected to require a maximum of 110 workers, whilst about 6 permanent jobs will be created during the operations phase.

#### *Human resources policy and procedures*

CP will establish a Human Resources (HR) policy and procedures based on the principles of the human resources policies and procedures of the CP Integrated Management System and IFC PS 2. Contractors will be required to align with those principles. CP will also ensure that documented information is provided to workers, includes details of any collective bargaining agreements, hours allocated to work, wages, overtime, compensation, training and benefits provided to workers (ESAP Action 3 - vi).

#### *Working conditions and terms of employment*

CP will avoid discrimination and ensure equality of opportunity during the processes of employing its own and contracted workers, especially considering the aspects of gender equality of applicants to fill jobs. The use of local labor should be prioritized, thus allowing the local economy to benefit. (ESAP Action 3 - vi).

#### *Grievance mechanism*

The project will establish an workers' grievance mechanism that covers all workers and contractors and is accessible and transparent, providing timely feedback to claimants without risk of retribution and allowing anonymous complaints to be raised (ESAP action 3 vii).

### *Occupational Health and Safety*

During the construction phase, CP will ensure that the project and all contractors adopt the same Occupational Health and Safety (OHS) practices and procedures at the project level. At the request of the financing entities, the bidding documents included the specific requirements for contractor companies, aimed at demonstrating compliance with legal norms and the IFC Performance Standards.

Under a contractual requirement, CP and contractors shall have a manager and a team dedicated to supervising, training and enforcing their workers with appropriate occupational and health and safety practices and procedures. CP will require the EPC contractor develops and implements a Health and Safety Plan for the construction phase, which will aligned with the ESHS Management Plan prepared by CP.

Contractors' OHS Plans will include: i) a chart of key personnel describing their roles and responsibilities; (ii) a list of training courses to be given to workers indicating their frequency and training verification mechanisms; (iii) a procedure for managing personal accidents and incidents; (iv) contingency and emergency preparedness and response measures, particularly during high risk activities such as working from heights during the installation of turbines and electrical components

Law 24557 governing work related risks require all projects to have an on-site medical facility and basic medical equipment and medication. The project is expected to hire a permanent ambulance service during construction works, to provide basic emergency services and transportation to a medical facility in case of requiring urgent care. All workers will receive training on emergency preparedness and response.

### *Workers engaged by third parties*

The client has hired Ventus as 'Owners Engineer' to bring experience in the sector to the project. Ventus will have a dedicated team with permanent presence at the project site, and will be responsible for supervising contractor's responsibilities and managing the interface with them.

Health and safety aspects and risks will be managed by Ventus in coordination with each contractor's health and safety manager. All workers will be required to comply with a code of conduct that prohibits behaviors and / or activities that could endanger the lives of workers, members of the local community and / or produce environmental impacts. CP will prepare a Code of Conduct for workers, to be fulfilled by all contractors during the construction and operation phases (ESAP Condition 3 - ix).

## **4.3 Resource Efficiency and Pollution Prevention**

### *Greenhouse gases*

The project will not contribute to greenhouse gases (GHG) emissions, except during the limited duration construction period due to the consumption of fuel by vehicles and heavy machinery. The project will avoid emissions by displacing thermal power generation sources and thus qualifies to be included in the Clean Development Mechanism (CDM). Once approved, Project Emission Reduction Certificates, or "carbon credits", will be issued.

### *Pollution prevention*

The project's Environmental and Social Management Plan (ESMP) will include all necessary measures to minimize the production of solid and liquid waste. Domestic and sanitary effluents will

be separated and treated by chlorination prior to disposal in septic tanks or wells approved by local authorities. Regular physical-chemical and bacterial controls will be carried out to ensure the quality of drinking water, in compliance with applicable legislation. Preventive and control measures shall be taken to prevent and properly manage contamination of soil, rainwater and / or groundwater by spillage of lubricating oils or other polluting substances used in the assembly and / or maintenance of electromechanical installations. Hazardous materials will be stored in containers transiently until their final disposal.

Noise and shadow flicker effects during the operation phase have not been identified as relevant to the extent that they warrant a detailed study of their effects on sensitive receivers, considering that there are no dwellings in the vicinity of the project.

#### *Solid waste management*

During the installation tasks of the wind turbine units, as well as during the construction of the transformer station and the high voltage transmission line, solid waste produced in the work area will be separated, stored and disposed of to the municipal waste dump of Rio Cuarto (as confirmed by the mayor of Achiras). In the event of any type of waste considered to be hazardous, in accordance with current legislation, CP will be responsible for its temporary collection and storage until delivery to an authorized carrier for transfer to an authorized hazardous waste disposal company.

### **4.4 Community Health, Safety and Security**

To ensure a harmonious relationship with landowners neighboring the project site, CP will prepare and implement a Code of Conduct (see ESAP action 9) that will be mandatory for all contractors and their subcontractors. All workers will be required to comply with the Code of Conduct, by which specific behaviors and activities that could put in danger the lives of the individuals themselves, other workers, flora/fauna and members of the local community will be prohibited.

#### *Infrastructure and equipment design and safety*

During construction phase, the main project impact for the public will be linked to interruptions in local traffic during transportation of turbines, heavy machinery, workers and other materials along state highways. This may lead to traffic delays and increase the risk of road accidents. CP will implement (or require the EPC contractor to implement) a Traffic Management Plan (ESAP Action 4) to identify the safest transportation routes, implement any road improvements needed to transport electromechanical elements, install road traffic safety signs, and prepare and apply traffic safety rules to all project drivers. Turbines are expected to be transported to the project site late in the evening to avoid blocking traffic on state highways during the day and during peak traffic hours. CP shall be responsible for maintaining direct contact and active coordination with the public services during any construction work that may result in the interruption of such services.

The traffic management plan shall include specific emergency preparedness and response measures to be implemented with the assistance of local authorities in the event of such events. In case of an accident, CP will take all measures to ensure that the impacts to the public are mitigated and managed. CP will present the contractor's traffic management plan to lenders for review prior to the start of construction.

#### *Security personnel*

As the project site is remote and there are no communities nearby, security personnel related risks are expected to be very low. CP will make use of a limited number of unarmed private security

personnel to control site access and prevent theft during the construction phase. These personnel will be trained in CP's Code of Conduct to ensure that interactions with workers and any neighboring landowners are cordial and professional.

#### **4.5 Land Acquisition and Involuntary Resettlement**

The company has purchased the land required for the wind farm on a willing buyer, willing seller basis from a single commercial farmer and there will therefore be no involuntary resettlement associated with this component. Before being acquired by CP, the project property was used for agriculture and livestock rearing. The construction of 17 km high voltage transmission line requires easement agreements with land owners affected by the right of work (RoW). Legal records and studies have identified 20 landowners along the RoW. While the project is negotiating good faith agreements, eminent domain can apply in the event amicable agreements are not achieved, thus triggering the application of PS5. The project is responsible for compensating landowners for impacts to losses suffered on crops, trees, structures, etc. The project will prepare a record for each land owner, identifying details of the owner's land, including a photographic registry. The project will prepare an entitlement matrix identifying the compensation (*indemnización*) rates and amounts to be paid to each landowner, in alignment with IFC PS 5 (ESAP Action 5).

#### **4.6 Biodiversity Conservation and Sustainable Use of Living Natural Resources**

Potential bird and bats mortality due to collisions with wind turbine blades was assessed to be one of the more relevant potential operations phase risks for this project. As a result, the company commissioned a specific study to evaluate these risks, the main conclusions of which are as follows: (i) no endemic, restricted or threatened bird or bat species were found on the farm, nor is there any critical habitat present; (ii) no IBAs, conservation areas or wildlife corridors are located nearby or within distances that could be affected by the project; and (iii) nearby wetlands will not be affected by the project.

The main recommendations of the study were to: i) remove the small pine forest that could be used by birds as a nesting site; (ii) remove animal carcasses that are common in the area, to avoid the arrival of carrion birds that could suffer impacts on wind turbines, such as the Andean Condor (*Vultur gryphus*) that inhabits the area; (iii) request the owners of a feed-lot located about 12 km from the project site that they take action to avoid attracting carrion birds to the project area; and (iv) develop a construction and post-construction bird and bat monitoring program for the project (ESAP action 12). The expert ornithologist retained by the Lenders for E&S due diligence purposes concluded that the project is not expected to be a threat to any sensitive species, in confirmation of the findings of CP study.

A qualified expert shall be hired to complete the project's bird and bat baseline studies over the course of a year and to monitor bird and bat impacts for the following two years (ESAP Action 6); a Biodiversity Action Plan, prepared by the mentioned qualified expert will be implemented by CP (ESAP Action 7).

#### **4.7 Indigenous People:**

No Indigenous Peoples live in or near the project area and thus Performance Standard (PS) 7 is not applicable.

#### **4.8 Cultural Heritage**

While it is not expected that project activities could lead to the discovery of archaeological and / or

paleontological material and therefore PS 8 is not applicable, the main contractor and subcontractors will be informed and trained on how to proceed with chance finds of such materials; In the case of such a find, construction works located at the site of the find will be stopped and the municipal authorities of Achiras notified immediately.

## 5. Local access of project documentation

For additional information please contact:

## 6. E&S Action Plan

Item	Action	Deliverable	Completion Date
1	Approve an Environmental, Social and Health and Safety (ESHS) Policy conforming with IFC Performance Standard (PS) 1, that includes the management of labor and working conditions, stakeholder engagement and grievance resolution.	ESHS Policy in form and substance acceptable to the Senior Lenders.	Prior to first disbursement
2	Submit to Senior Lenders proof of full compliance with requirements indicated in the DIA ( <i>Declaración de Impacto Ambiental</i> ) issued to Achiras Project by the environmental authority on 26 August 2016	Documented proof of compliance with DIA requirements	Prior to first disbursement
3	<p>Submit the final Environmental, Social and Health and Safety (ESHS) Management Plan prepared for Achiras. The ESHS Plan shall include:</p> <ul style="list-style-type: none"> <li>i. An organizational structure, in form and substance acceptable to the Senior Lenders, of all construction and operational staffing arrangements for managing the environmental and social, and occupational health and safety aspects of the Project.</li> <li>ii. A risk and impact identification matrix and hierarchical mitigation measures for the project, aligned to paragraph 7 of IFC PS1 and the party responsible for their implementation, and an implementation schedule.</li> <li>iii. A contractor management procedure, in form and substance acceptable to the Senior Lenders, including: a worker code of conduct and the procedure for communicating it to all workers; model clauses to be included in contracts with contractors to cause them to comply with the project's environmental and social policies and procedures</li> <li>iv. A training program aimed at raising contractors and subcontractors' awareness on environmental, social, health and safety aspects of the Project, including emergency situations and issues related to communities' relationships and archaeological findings management</li> <li>v. An ESHS Monitoring and Supervision Plan, both for construction and operation, aimed at: i) monitoring and measuring effectiveness of the ESHS management; ii) monitoring environmental and working conditions; iii) monitoring health programs; iv) monitoring legal compliance and v) monitoring and supervising contractors and subcontractors' activities during the construction phase. Although impacts on bird and bats are considered not relevant for this project, a related baseline and monitoring program shall be carried out by CP and included in the ESHS Monitoring and Supervision Plan.</li> <li>vi. A Human Resources Policy, conforming to IFC Performance Standard (PS) 2, establishing that management of contractors will be aligned with the principles of this Policy. Documented information provided to workers shall include details around collective agreements, hours of work, overtime, compensation, training, and benefits. CP will avoid discrimination and ensure equality of opportunity during the processes of employing its own and contracted workers, especially considering the aspects of gender equality of applicants to fill jobs</li> <li>vii. A grievance mechanism for workers to raise workplace concerns, compliant with guidance in paragraph 20 in PS2. Documented grievance mechanism shall include: strategy for ensuring accessibility by workers; flow diagram from reception to resolution of complaints; roles and responsibilities of those involved; reasonable time limits for complaint resolution; and provisions for handling anonymous complaints</li> <li>viii. An emergency preparedness and response plan that aligns with paragraphs 20 - 21 of IFC PS1. The plan will include, among others, measures to be taken during construction and operation phases, when workers will be working at height and exposed to electrical risks. A permanent ambulance service shall be contracted and be available at the project site. The plan will include measures to be applied in emergency situations originating from natural causes (thunderstorms, fire propagation, etc.) and anthropic ones (falls of operators from the generator, electric accidents, overcharges and short circuits, etc.). Coordination of actions</li> </ul>	ESHS Management Plan in form and substance acceptable to Senior Lenders	Prior to first disbursement



Item	Action	Deliverable	Completion Date
4	As part of the ESHS Management Plan, the project will submit, in form and substance acceptable to IFC-IIC, a transportation management plan identifying how it will ensure the safety and security of all those potentially affected during the transportation of project equipment and machinery in public areas. The transportation management plan will include specific emergency preparedness and response measures to be implemented with assistance from local authorities in the event of an emergency; in the event of an accident, the Project will take all measures to ensure that impacts to the public and the environment are prevented and managed accordingly	Project transportation management plan, in form and substance acceptable to the Senior Lenders	July 31, 2017
5	As part of the ESHS Management Plan, CP will evaluate the impacts caused by the construction of the High Voltage Line (HVL), identifying potential losses suffered on crops, trees, structures, etc.. CP will prepare a record for each land owner, identifying details of the owner's land, including a photographic registry. CP will prepare an entitlement matrix identifying the compensation ( <i>indemnización</i> ) rates and amounts to be paid to each landowner	Reports of potential impacts on owner's lands including an entitlement matrix compensation	Prior to first disbursement
6	Contract qualified expert(s) to complete the project's bird and bat baseline studies over the course of a year, and to monitor bird and bat impacts for the following two years.	i. Terms of Reference for work and CV of expert (s) both acceptable to the IIC/IFC. ii. Biodiversity Expert Contract iii. Report on baseline conditions iv. Monitoring report	i) Prior to First Disbursement ii) and iii) Within one year of First Disbursement iv) Quarterly from date of Physical Project Completion.
7	Prepare and implement a Biodiversity Action Plan for the project	Submit a Biodiversity Action Plan in form and substance acceptable to Senior Lenders	Prior to first disbursement
8	To convene public meetings in Achiras establishing external communication mechanism; to assign a person responsible to interface with landowners, the Achiras Municipality and any other stakeholders who show interest in the project. The officer will also be responsible for responding to questions and/or grievances raised by third parties in connection with the project.	Minutes of public meetings held	Prior to first disbursement
9	Submit an Environmental and Social Compliance Report to the IIC annually.	i. Report Template ii. Comprehensive report, detailing compliance with all Environmental and Social Requirements, as defined in the Loan Agreement.	1. Prior to First Financial Close 2. Annually from date of Financial Close