

**1. Overview of Scope of IIC E&S Review** This summary is based on the information submitted by Petroquímica Comodoro Rivadavia S.A. (hereinafter, "PCR") for the wind farm project Parque Eólico del Bicentenario to be carried out by its subsidiary Parque Eólico del Bicentenario S.A (hereinafter, "PEBSA" or the "Client"); this information includes: Environmental Impact Assessment (EIA) with its annexes and addenda; baseline analysis of birds and other related reports; information on PCR's environmental and social procedures; and permits and agreements for PEBSA's use of the land. The environmental and social due diligence visit made between June 20 and 23, 2017, covered all PCR's cement plants in Pico Truncado and Comodoro Rivadavia; the Project site and the route that the equipment most surely will travel; as well as the communities of Jaramillo and Puerto Deseado, including the port facilities where the equipment will be unloaded to be transported by land to the Project site. During the visit, several meetings were held with those responsible for the development of the Project and their advisors, as well as with those in charge of managing the environmental and social aspects in PCR. Also, the Project team met with Puerto Deseado Mayor and with the Development Commissioner of Jaramillo.

**2. Environmental and Social Categorization and Rationale** This Project has been classified as of category **B**, according to the IIC's Environmental and Social Sustainability Policy, because it will cause impacts that may be avoided or mitigated by following generally recognized performance standards, guidelines, and design and managerial criteria for this type of projects. The main environmental and work-related aspects of this Project are: impact on the environment and the biodiversity; the resource efficiency and pollution prevention; labor and working conditions; and community health, safety and security.

**3. Environmental and Social Context** PEBSA will be located on national route 281 in Santa Cruz province, 17 km to the south-east of Jaramillo, and about 100 km to the north-west of Puerto Deseado. The Project site is a rural area dedicated to extensive farming with low-productivity cattle growing, and with almost no population. Jaramillo has about 350 inhabitants, whereas the town of Puerto Deseado has about 16,000. The main economic activities of the north-east area of Santa Cruz province are extensive farming and mining, with some specific ventures, such as oil extraction in the Caleta Olivia area (120 km northbound), the cement industry (developed by PCR) in Pico Truncado (100 km to the north-west) or the fishing industry in Puerto Deseado. There are no protected areas, Important Bird Areas (IBA) or areas of any biological, ecological or environmental interest near the Project site.

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

##### **4.1 Assessment and management of environmental and social risks and impacts**

a. *Environmental and Social Management System* PEBSA's Environmental and Social Management System will be based on that of PCR's, which is ISO 9001 certified and has developed an Integrated Management System (SGI) for dealing with Environmental, Occupational Health, and Safety and Security issues as required by ISO 14001 and OHSAS 18001 (yet uncertified). PCR's SGI includes a manual describing its different components and points out the documents associated with each one of them.

b. *Policy.* PCR has an Environmental, Occupational Health, Safety and Security Policy in place to govern the production of cement for the construction sector, the oil & gas industry, for mortars and precast concrete, and for oil & gas exploitation. This policy, however, does not include PEBSA's activities yet; so, the company shall prepare one or extend the scope of the one in place and shall include the contractors' work.

c. *Identification of Risks and Impacts.* The identification of environmental risks is included in the

document “Aspectos Ambientales” (Environmental Aspects) of the SGI, which suggests a procedure to identify and assess the environmental impacts, set objectives and goals, and define responsibilities. However, the scope of this procedure is limited to PCR’s cement-production activities, thus making it necessary for PEBSA to develop one to be applied to the wind farm. The risks associated with the construction stage of the Project are, among others: i) work-related (accidents caused when handling heavy loads, work at height, handling electricity, etc.); ii) road security (transportation of machinery, heavy equipment, and people); iii) handling solid and liquid waste; iv) spills; v) erosion; vi) camp site management; vii) community engagement; and viii) possible archeological and paleontological findings. The main risks at the operation stage are connected with the possible impact on flying fauna, namely birds and bats, and with the work-related risks derived from equipment maintenance and repairing activities.

d. *Management Programs.* At PCR there are management programs for each area, prepared by the Heads of Environment, Safety, Industrial Health and Security, Occupational Medicine, Quality Assurance, and the related Heads of Department. This results in specific programs for each industrial plant as well as one for the raw material quarry. PEBSA shall proceed in the same way for the wind farm construction and operation stages. As part of the management program, the significant environmental, occupational health, safety and security parameters to monitor will be established, and a measurement and follow-up program shall be added.

e. *Organizational Competencies and Capabilities.* PCR’s managerial skills will be used to develop PEBSA’s management programs, which will be supplemented with some specific hires where Project characteristics or dedication require it. Each contractor shall have someone responsible for safety and security issues, and their plans shall be coordinated with PEBSA.

f. *Emergency Readiness and Response:* PEBSA shall develop an Emergency Plan for the construction and operation stages, which allows for the adequate handling of the identified risks. In turn, each contractor shall have their own Emergency Plan in place prepared in consensus with PEBSA and in compliance with the instructions of the Aseguradora de Riesgos de Trabajo (ART) (occupational risk insurance company). In Jaramillo there is a medical assistance center that provides basic medical care, being Caleta Olivia Hospital the place to be referred to in serious cases. Jaramillo also has an ambulance, which is used for a significant stretch of route 3, thus this service should be reinforced.

g. *Engagement of Social Players.* In the Project area, no population is directly affected or benefited. The closest places are Jaramillo, with a population of about 350 inhabitants and located 17 km away from where the wind farm will be built; Tellier, with about 120 inhabitants and located almost 80 km away from the Project; and Puerto Deseado, with about 16,000 inhabitants and located over 100 km away from the place. During the field visit, meetings were held with Puerto Deseado Mayor and his government team, and with the Development Commissioner of Jaramillo. Both authorities showed their support to the construction of the new wind farm, as it will contribute to boost the local economy with job generation, though limited, and the possibility of creating services for the workers such as transport, food and accommodation for the workers.

During the field visit, it could be noted that, to date, there has not been any major disclosure efforts of the project. In order to remediate situation, the Client promised to hold at least two informative meetings, one in Puerto Deseado, which will also be attended by representatives of Tellier, and another one in Jaramillo. For these meetings the Client will prepare a presentation with tryptics for the participants and a video about wind energy; they will also explain the grievance and claim mechanism.

h. *External Communications and Grievance Mechanisms* The informative meetings shall include

at least the following topics: i) the description of the Project; ii) the description of the main impacts and associated risks; iii) the description of the proposed management measures; and iv) the description of the grievance and claim mechanism.

It is worth mentioning that the Client is subscribed to an online service called “Resguarda” ([www.resguarda.com](http://www.resguarda.com)) which enables stakeholders to submit grievances and claims, and is independently administered. The system includes a contact telephone number, an e-mail address and a web page to submit the grievance or claim. Each grievance or claim is recorded with a number and password, which allows the claimant to follow up on them and the pending resolution.

i. *Periodic Reporting to Affected Communities.* There are no communities that are directly affected by the project. The small town of Tellier is the only community on the road used to transport material and equipment for the construction of the wind farm. The Client shall properly inform its road security plan to prevent and avoid accidents on the road and, in particular, in the Tellier area. In Puerto Deseado, unloading machinery and materials could congest the port, which is used for fishing activities. In order to avoid this congestion, the Client is seeking to agree on the use of a nearby space that is owned by the Navy to decongest the port quickly and send the equipment and the materials from there to the final destination.

## **4.2 Labor and Working Conditions**

PCR’s Department of Human Resources will support PEBSA in hiring staff and managing labor relations. However, during the construction stage, hiring staff will be the responsibility of the contractors. PEBSA will see that the working conditions are in compliance with the policies and procedures of PEBSA and PCR.

PCR staff working in the cement industry are members of the Sindicato de Obreros y Empleados de PCR (SOEP) (PCR workers trade union). Staff grievances or claims are directly channeled to the company or through the trade union, with whom the company maintains a permanent open dialogue.

Each contractor working on the construction of the wind farm shall have a Head of Health, Safety and Security at the Workplace. They shall also have a Prevention Program in place to be developed during the construction works and a Staff Training Program, both duly approved by the contractor’s ART and PEBSA’s Department of Health, Safety and Security. Each contractor shall, among other things, train their workers in health, safety and security, and in the prevention of work-related diseases and accidents (Risk Prevention Program), give personal protection equipment, prepare and explain the security standards to observe at each task, provide with compliant transport services, keep the order and cleanness in the work site.

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

PEBSA is assessing water availability on site for the execution of the civil works. According to preliminary analyses, it is feasible to get water by drilling the ground. If this is confirmed, once the quality of the water is analyzed, the wells will be registered in accordance with applicable regulations. If the existence of water supply in the site is not confirmed, it will be bought from a neighbor that has active wells.

The concrete aggregates for the construction can be extracted on site and nearby depending on the required granulometries. However, legal registrations are necessary to be able to use them.

PEBSA should prepare plans to manage solid and liquid waste, both hazardous and nonhazardous,

for the construction and operation stages. For the construction stage, those plans shall be implemented with the contractors, who shall see they are complied with. In particular, the contractor of the civil works shall design a plan to handle the effluents from washing the equipment to mix and transport concrete. Moreover, each contractor will be responsible for handling fuel and lubricant waste from the operation and maintenance of machinery and equipment, as well as the storage, handling and potential spills.

Greenhouse gases and air pollutants are produced at the construction stage, due to the movement of machinery and the transportation of cargo and people. Contractors shall keep the equipment in good operating conditions to minimize such emissions, keep the roads wet, and cover cargos and piles of loose material to reduce the production of dust. The wind farm will result in reducing the annual emissions by about 213,733 tons of CO<sub>2</sub>.

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

There are no homes that are directly affected by the project. The area where the wind farm is located is inhabited, being Jaramillo the closest town. There are no rural homes near the Project site, so there is no risk of noise or shadow flickering effects caused by the wind generators.

The road security plan for transporting equipment from Puerto Deseado to the Project site runs in the periphery of this town and through Tellier on route 281. PEBSA is taking coordinated actions with the authorities to implement the necessary security measures.

The presence of temporary staff unrelated to the company in the work site during the construction phase may have disruptive effects if the necessary precautions are not taken. Attempts will be made to hire locally. If staff is hired elsewhere, contractors will have to take the necessary precautions to avoid conflict with the communities.

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

The land where the wind farm will be set up is private property. The Client reached a 35-year usufruct agreement for 2,474 ha. The deed of usufruct was signed in August 2016 and is valid until August 2051. Moreover, the Client receives 2 ha free of charge through an administrative easement agreement to set up the substation.

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

The site where the Project will be located lies on the Patagonian Desert: scarce vegetation, with low scrubs (lower than 50 cm), adapted to conditions of low humidity, low temperature, frost and strong winds.

Land fauna is also scarce in the area and, although there might be some species of conservational interest, baseline reports only identified species of minor concern, which are not considered to be affected by the planned works.

As to the birds, the list of species that might be found in the Project site is long. Therefore, apart from the baseline analysis performed for the EIA, PEBSA hired the services of a consulting firm to carry out more detailed studies, which involved 5 screening operations between November 2016 and March 2017. The IIC also requested the involvement of an expert to help determine the risk of affecting birds and design a more accurate monitoring plan. The conclusions of the analyses and the subsequent plans will be ready before the construction stage is completed.

The baseline analyses did not report the existence of bats. Nor were they found in places near the

Project site. However, as part of the bird fauna screening task, the presence of chiropterans will be recorded.

#### 4.7 Indigenous Peoples

There are no indigenous peoples in the Project's area of influence.

#### 4.8 Cultural Heritage

As part of the EIA, an anthropological and a paleontological surveys have been made. The anthropological survey did not reveal archeological material or geological formations that might contain it; thus, the probability of findings is significantly low.

The paleontological survey indicates that the geomorphological units found in the Project site have extremely low probability of having fossils.

In any case, PEBSA will prepare a procedure for dealing with chance finds of objects with cultural value.

### 5. E&S Action Plan

Item	Activity	Deliverable	Due date
1	Carry out a process of public disclosure in Jaramillo and Puerto Deseado, including: i) the description of the Project; ii) the description of the main impacts and associated risks; iii) the description of the proposed management measures; iv) the description of the grievance and claim mechanism; and v) a forum to collect feedback, suggestions and comments from the population.	Evidence (minutes, photographs, etc.) of the consultation events.	Prior to first disbursement
2	Set up a mechanism to engage with the stakeholders, in which any member of the community can express their comments or grievances, which are received and analyzed by the company's management, thus helping to solve potential conflicts at an early stage.	Engagement mechanism	Prior to first disbursement

3	<p>Set up the Occupational and Environmental Plan for the Construction Works (PGA-C) that includes contractors and that contains:</p> <ul style="list-style-type: none"> <li>a) The company's sustainability policies</li> <li>b) The legal compliance matrix</li> <li>c) The organizational chart and responsibility allocation</li> <li>d) A code of work conduct and a manual for the workers</li> <li>e) The mechanism for identifying environmental and social risks and impacts</li> <li>f) The preparation of programs and procedures to mitigate or eliminate environmental and social risks</li> <li>g) The plan to manage solid and liquid, hazardous and nonhazardous waste. Required authorizations.</li> <li>h) Permits and licenses to deliver quarry materials, water and other construction supplies.</li> <li>i) Training programs</li> <li>j) Compliance objectives</li> <li>k) The control and monitoring program</li> </ul>	PGA-C. Evidence of the implementation, such as the training reports, the legal compliance matrix, controls and monitoring activities	Prior to first disbursement
4	<p>Develop the health, safety and security plan (PSS) that includes contractors and that contains:</p> <ul style="list-style-type: none"> <li>a) The organizational chart and responsibility allocation</li> <li>b) The identification and assessment of risks of work-related accidents and diseases</li> <li>c) The safe work procedure, including the description of the personal protection equipment</li> <li>d) The road safety plan</li> <li>e) Training programs</li> <li>f) Emergency procedures. Location-specific courses of action (emergency services, first response services, authorities, etc.)</li> <li>g) The accident and incident investigation</li> <li>h) The control and monitoring program</li> </ul>	PSS. Evidence of the implementation, such as the training reports, the map of emergency and first response services, controls and monitoring activities	Prior to first disbursement

5	Develop a Plan for Archeological and Paleontological Control on the Work Site, which contains (at least): a) Procedures to be followed prior to starting the works b) Courses of action in case of findings c) Consultation references	Plan for Archeological and Paleontological Control on the Work Site	Prior to starting works
6	Determine the volume of greenhouse gases to be generated by the Project at the construction phase. Determine the total volume of water to be used at the construction stage of the Project.	Tons of CO <sub>2</sub> and m <sup>3</sup> of water	Prior to first disbursement
7	Develop a Plan of Environmental Management for Operations (PGA-O), which contains (at least): a) The organizational chart and responsibility allocation b) Risks and contingencies during operations, with remediation measures for cases of environmental damage c) The identification and assessment of risks and safe work procedures, including the description of the personal protection equipment d) Biological monitoring, especially birds and bats e) The waste management plan	PGA-O	Prior to starting operations

### Contact Information

For project inquiries, including environmental and social questions related to an IDB Invest transaction please contact the client (see **Investment Summary** tab), or IDB Invest using the email [requestinformation@idbinvest.org](mailto:requestinformation@idbinvest.org). As a last resort, affected communities have access to the IDB Invest Independent Consultation and Investigation Mechanism by writing to [mecanismo@iadb.org](mailto:mecanismo@iadb.org) or [MIICI@iadb.org](mailto:MIICI@iadb.org), or calling +1(202) 623-3952.