

Luxembourg, 12th July 2023

Environmental and Social Data Sheet

Overview

Project Name:	ECUADOR-PERU POWER INTERCONNECTION
Project Number:	2021-0138
Country:	Ecuador
Project Description:	Investment loan to part-finance the Ecuadorian side of the Power Interconnection between Ecuador and Peru in 500 kV
EIA required:	Yes
Project included in Carbon Footprint Exercise ¹ :	Yes

Environmental and Social Assessment

Environmental Assessment

The project comprises a 500 kV single circuit (approximately 280 km) from the substation Chorrillos to the border with Peru (Frontera Peru), the extension of the substation Chorrillos and the intermediate new substation Pasaje. The Promoter of the project is CELEC (La Corporación Eléctrica del Ecuador). The Peruvian section of the interconnector (270 km transmission line (TL) between substation Piura Nueva and the border with Ecuador) is considered to be an associated facility (on this section, see below in Other Environmental and Social Aspects).

The length of the section Chorrillos-Pasaje is approximately 205 km, while the section Pasaje-Frontera is 75 km. As a security measure, in the event of a power shortage, two 230 kV link lines will be connected from the SE Pasaje to an existing 230 kV line, each with a length of 0.87 km and 0.67 km. Its route starts from the SE Pasaje until it connects with an existing TL (built) at 230 kV. The construction of the 500 kV transmission line involves the establishment of a 60-metre wide right-of-way along its entire length. For the short 230 kV lines the right-of-way is 30-metre wide.

According to the national legislation, the project falls within the category of projects likely to have significant environmental impact and for which the preparation of an environmental impact assessment (EIA) report is required. Given the potential impact on the local communities and rights holders, an integrated Environmental and Social Impact Assessment (ESIA) has been prepared and was subject to public consultation process.

The ESIA and the Environmental and Social Management Plan / ESMP (PGAS², the Spanish acronym) were prepared within the framework of the country's environmental permitting process, including an analysis of alternatives (socio-environmental considerations addressed). An update of the ESIA and ESMP for the TL and the substation Pasaje, the ESIA and ESMP for the expansion of the SE Chorrillos and the Resettlement and Livelihood Restoration Plan / RLRP (PRRA³, the Spanish acronym) were prepared and published between April and May 2021. Public consultation and stakeholder engagement were carried out in December 2020 and in March 2021 and corresponding consultation reports have been prepared. As part

¹ Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO₂e/year absolute (gross) or 20,000 tonnes CO₂e/year relative (net) – both increases and savings.

² PGAS – Plan de Gestión Ambiental y Social (in Spanish)

³ PRRA – Plan de Reasentamiento y Restitución de Activos (in Spanish)



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of the permitting process, between 18 and 25 June 2022, 16 public hearings were held and a consultation report was prepared. The environmental licence was issued in April 2023.

The route of the TL was modified to address: (i) the agreements with banana and sugar producers; (ii) the issues related to geological aspects and the stability of surrounding terrain influenced by changes in climate patterns; and (iii) avoidance or minimisation of impacts on critical natural habitats (avoidance of 3 areas with critical habitats and mitigation measures to be included in the design, construction, and operation of the project).

The main impacts are associated with right-of-way along the entire length of the transmission line, the construction of towers, and land acquisition for the new substation. The TL right-of-way strip has an estimated area of 1708.50 ha. Clearing of vegetation cover in right-of-way areas will only be restricted to infrastructure installation sites (towers and substation Pasaje) and in those areas with tall vegetation, which could interfere with electrical structures and represent a risk by not respecting the safety distances.

The ESIA includes an identification of the risks (seismic risks, landslides, storms, and floods) and defines mitigation measures. The Promoter must ensure that all defined plans and measures are duly applied and implemented throughout all phases. Other risks that may arise for nearby communities stem from project induced traffic, impacts of noise, dust, labour risks and risks related to the presence of security personnel and the influx of labour force during construction. The potential climate risks to the infrastructure were taken into consideration during the preparation of the feasibility study and the final design.

Associated with this operation, some moderate cross-border impacts can be expected, the operation being an interconnection between two countries (see more information below in the section *Other Environmental and Social Aspects*). The corresponding studies are at preliminary level.

EIB Carbon Footprint Exercise

In accordance with the Bank's current Carbon Footprint methodology, the project presents sources of CO₂ equivalent emissions from electric (ohmic) losses. These emissions are however largely offset by the indirect emission savings resulting from the reduction of inefficient fossil fuel generation and increase in renewable production (2030, base scenario) enabled by the project. The total relative effect of the project is a net annual reduction in CO₂ equivalent emissions by 185 kt CO₂-e per annum.

For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

EIB Paris Alignment for Counterparties Framework

The operation has been assessed for its Paris alignment and it is considered to be aligned against low carbon and resilience goals in line with the policies set out in the Climate Bank Roadmap and with the EIB's Energy Lending Policy.

Social Assessment

Public consultations on this first version of the RLRP were attended by a total of 270 participants who raised as main concerns the following: (i) compensation for the right-of-way for the transmission line; (ii) engagement during the preparation of the RLRP; (iii) expectations for local hiring; and (iv) access to mechanisms for possible claims.



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In the area of direct influence of the project, 29 communities have been identified in the provinces Guayas and El Oro, where the predominant economic activities are agriculture and livestock (95.48%), and to a lesser extent industry or manufacturing (2.66%). The area of indirect influence covers 30 communities, located in the provinces of Azuay, El Oro and Guayas. No indigenous communities have been identified in the project area. No impacts on cultural sites have been identified, and the National Institute of Cultural Heritage has issued the Conformity Opinion for the project.

Land use shall be either permanent or temporary. The permanent use of land will lead to physical displacement (7 cases), economical displacement (2 cases) and the impact on livelihoods in rural areas due to the establishment of rights-of-way that will restrict use of agricultural land. The Chorrillos substation will be expanded within the property where it is currently located, whereas in the case of the Pasaje substation, land has already been purchased. Land acquisition is necessary for the works or services related to the project, such as the towers that support the TL. Where land use is temporarily required for construction purposes, this land will be returned to the original landowners following the implementation of reinstatement measures.

Affected persons will be compensated fairly at the market value. Most adverse impacts on livelihood will be short-term ones and derive primarily from disturbances caused by construction. Impacts include temporary loss of and reduced access to agricultural or grazing land and impacts on community assets and infrastructure. The Promoter will seek to secure voluntary agreements for the land as well as commensurate compensation measures.

The RLRP includes assistance activities related to the affected population, social support for vulnerable affected people, restoration of economic income in the remaining area of the land, legal guidance and an information, dissemination and consultation programme.

Gender considerations are included in the ESIA and in the first version of the RLRP, as well as measures to reduce, mitigate or effectively/compensate impacts to avoid gender-based discrimination.

The influx of workers from other regions during the construction of the project may generate tensions with the surrounding communities, an increased perception of insecurity and of sexual harassment and gender-based violence. The ESMP establishes requirements for the contractor company (ies) in terms of Code of Conduct, procedures and protocols, sanctions for non-compliance, training of employees on the Code of Conduct. Awareness and information raising sessions should be provided to the communities on the existence of such Code and the mechanisms and processes to report any violations.

The RLRP will be updated to reflect the final design of the project and a new round of consultation and stakeholder engagement will be carried out.

Public Consultation and Stakeholder Engagement

Consultation and stakeholder engagement has been carried out during the ESIA process (ESMP included) and on the first version of the RLRP. To note that the updated documentation will be subject to an additional and final round of consultations and stakeholder engagement.

A stakeholder engagement plan (SEP) has been developed which defines the scope of engagement activities during the construction and operation stages. Its specific objectives are to (i) identify the stakeholders and the type and level of information necessary; (ii) organisation of the consultation process and access to information, ensuring accessible and transparent consultation with affected project stakeholders; and (iii) establishment of a relevant grievance mechanism.



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The SEP provides a framework for the development of constructive long-term relationships based on a two-way dialogue and communication as well as ongoing stakeholder identification, analysis, mapping and prioritisation, consultation and engagement, risk and issue identification, and information sharing. The contractors shall have a “Manual for the management of queries, complaints, claims, suggestions and acknowledgments” throughout the entire life of the project.

Other Environmental and Social Aspects

In terms of organisational capacity, the Promoter has an internal team, *Environmental and Social Department*, with responsibilities related to E&S due diligence and monitoring, implementation of environmental management plans and occupational health and safety plans. The members of the team have been previously involved in projects of similar magnitude⁴ and have a good understanding of the E&S requirements related to the permitting and of the implementation and monitoring of the project.

In addition, the Promoter will set up a dedicated Project Management Unit (PMU) for the project that will have full-time environmental and social experts. The project benefits as well from technical assistance provided by Inter-American Development Bank expertise and support in the preparation of the updated version of the ESIA, ESMP and RLRP.

The project will further update and implement the SEP, including the grievance mechanism, to ensure the continuous and effective engagement of affected and interested parties, in particular surrounding communities.

As an associated facility of the project, the Peruvian section of the transmission line will require an assessment by the Bank of the environmental and social impacts and of the mitigation measures and residual risks. According to the legislation in Peru, the Peruvian section will undergo an environmental impact assessment (EIA) process, including public consultation.

According to the information presented in the ESIA prepared for the Ecuadorian section of the TL and in the pre-feasibility study available for the Peruvian section, the Peruvian section runs parallel to a national highway and a regional highway, it does not cross protected areas, and no indigenous communities were identified along the TL route. There are rural communities close to the route of the TL, so the interaction of the project with these areas should be verified in the field. The transmission line crosses the buffer zone of the Cerros de Amotape National Park, so management measures and necessary authorisations for the development of the Peruvian section must be coordinated with the regional authorities and civilian population. In summary, no significant E&S issues were identified at this stage, but this will need to be confirmed once the ESIA is prepared and information from the field surveys are available for the Peruvian section.

Conclusions and Recommendations

The Promoter has the capacity to implement the E&S requirements for the project. The investments targeted by the operation have been structured to meet the EIB E&S requirements and are not expected to have significant residual social and/or environmental impacts and risks, provided that all respective mitigation and remedial measures are implemented in full.

The Promoter will carry out, to the satisfaction of the Bank, the update of the ESIA, ESMP and the RLRP to reflect the final design of the project (the final route) and will make available to the public the updated documents, as well as carry out a new round of consultations and stakeholder engagement with project affected people and respective rights holders.

⁴ Construction of 500kV system between 2014 and 2019, covering 12 provinces, comprising 611 km 500kV transmission lines, 279 km 230kV transmission lines, 4067 MVA of transformation capacity by 4 substations of 500kV and 2 substations of 230kV, and 1 control centre for 500kV.



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The following conditions and undertakings will be included in the legal documentation of the project:

- Prior to the first disbursement, the Promoter shall submit the updated ESIA, ESMP (including the SEP and grievance mechanism) and RLRP, to the satisfaction of the Bank.
- As part of the Stakeholder Engagement Process and consistent with its stakeholder engagement plan, the Promoter shall make available to the project-affected communities and stakeholders the updated ESIA, ESMP and RLRP.
- The Promoter undertakes to share its knowledge and experience in the design, construction, and operation of the Ecuadorian section of the project, with its counterpart in Peru, and how the environmental and social aspects are addressed following industry best practices and the requirements of the Bank.
- The Promoter undertakes to make available to the Bank the ESIA study of the Peruvian section of the project when it is ready for Public Consultation.

In view of the above findings and with the appropriate conditions in place, the project is acceptable for EIB financing in environmental and social terms.