Luxembourg, 10.04.2017

Environmental and Social Data Sheet

Overview

Project Name:	*ANDE TRANSMISSION & DISTRIBUTION SYSTEM UPGRADE*
Project Number:	*2014-0563*
Country:	*Paraguay*
Project Description:	*The project aims at enhancing Paraguay's electricity distribution and transmission networks in the metropolitan area of Asunción as well as in the central and eastern parts of the country.*

EIA required: no

Project included in Carbon Footprint Exercise[1]: no

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

Environmental and Social Assessment

The project is an investment programme for the upgrading and modernisation of the electricity transmission and distribution networks in Paraguay.
In electricity distribution networks, the programme comprises the construction or replacement of LV and MV networks with voltage levels up to 23 kV as well as the installation of street lights. In transmission, the programme comprises the installation of 66 kV and 220 kV underground cables in Asunción and Ciudad del Este, the change of conductors for a 66 kV overhead line in the eastern region as well as the expansion and modernisation of substations.
The main purpose of the Programme is to renew ageing assets, to build or upgrade substations to meet growing demand as well as to improve the quality and reliability of electricity supply.

Environmental Assessment

The programme components relate to medium or low voltage equipment, works in substations, underground high voltage lines as well as refurbishment of existing overhead lines that are expected to have limited environmental impacts. If undertaken in the EU, given the nature and characteristics of the programme schemes, it is not anticipated that ESIAs would be required for these schemes.

[1] Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

The promoter has indicated that no physical resettlement is likely and that the programme will not be undertaken in protected areas.

During construction, environmental impacts are expected to relate to dust, noise vibration, traffic disruption, power cuts, disposal of replaced equipment, and vegetation clearance. Environmental impacts during operation will concern electromagnetic fields (EMF), noise disturbance and impact on flying vertebrates. When relevant, appropriate mitigation measures will be implemented to minimise impacts. This includes measures to contain the effect of noise during operation, specific maintenance procedures to minimise leakage of SF_6 as well as use of insulated or covered conductors for low and medium voltage networks.
During excavation works, particular attention will be paid to cultural heritage sites and archaeological monitoring will be undertaken in coordination with the competent authority when appropriate. In densely populated areas, particular attention will be paid to inform and coordinate with residents and local authorities as well as to contain the effect of noise, vibration and traffic disruption during construction works.
Regarding the schemes relating to works in substations, contamination from oil leakages of transformers is mitigated through the appropriate design of bunds.
In the metropolitan area of Asunción, the use of protected conductors for low and medium voltage networks is expected to have positive impacts on vegetation by reducing pruning needs and increasing network resilience to vegetation growth.

The main negative environmental impacts that have been identified are related to the disposal of the replaced capacitors and distribution transformers. Some of the existing capacitors and distribution transformers being replaced may contain PCBs[2], with potential environmental impacts in case of oil leakage. The national authority for nature and environment has established a national policy for PCB elimination and the Paraguayan government prepared a National Implementation Plan[3] for POPs[4] management. This plan identified PCBs as one of the top priorities for POPs management. The national policy for PCB management and disposal currently faces the lack of facilities for PCB disposal. Considering the existing national infrastructure for PCB management and disposal, there is a residual risk of accidental release of hazardous waste from PCB contaminated equipment that cannot be currently mitigated. This risk is deemed inherent to the existence of obsolete PCB equipment in the electricity networks. By removing old distribution transformers the programme will contribute to phase out PCB contaminated transformers. The promoter has indicated that a plan for PCB elimination is being prepared. The national policy for PCB elimination, associated updates of promoter's procedures for PCB management as well as future capacity building and regulatory developments are expected to further mitigate this risk. Appropriate monitoring and follow up of these measures will be undertaken.

Public Consultation and Stakeholder Engagement

As part of the standard practices of an experienced distribution system operator, customer relations and public relation officers would deal with complaints and grievances.
Appropriate communication programme will be implemented to inform the residents prior to starting construction works. This includes information materials and information meetings on the technical aspects of the works undertaken, the mitigation measures implemented and access to grievance mechanism.

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[2] Polychlorinated Biphenyl

[3] Called "National Implementation plan of the Stockholm convention for Paraguay": http://chm.pops.int/Implementation/NationalImplementationPlans/NIPTransmission/tabid/253/Default.aspx

[4] Persistent Organic Pollutants

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Other Environmental and Social Aspects

The programme by itself is not expected to emit significant amount of CO_2. Absolute and relative emissions of the programme are expected to be below the thresholds of the Carbon Footprint exercise.

Conclusions and Recommendations

The main environmental impacts that have been identified are related to the disposal of PCB contaminated equipment. There is a residual risk of accidental release of hazardous waste from PCB contaminated equipment with consequential environmental impacts. It is considered that the national policy for PCB elimination, promoter's procedures for PCB management as well as associated future capacity building and regulatory developments will be instrumental in mitigating this risk. The other environmental and social residual impacts of the programme are expected to be limited. Based on the information available and subject to the below undertakings, the programme is acceptable for EIB financing from an environmental and social perspective.

Particular conditions and undertakings:

- Formulation of an action plan for PCB management and disposal will be a condition for first disbursement.
- The Promoter undertakes to implement the programme in accordance with the EIB's Environmental and Social Handbook and in compliance with the permits from the respective environmental authorities. Electronic copies of environmental studies and environmental permits pertaining to programme components shall be sent to the Bank as soon as available.
- The Promoter undertakes to follow best international practices for waste disposal, in particular for the disposal of hazardous waste from transformers and capacitors. The Promoter undertakes to follow current international practices for the inventory, storage and elimination of PCBs contaminated equipment.
- The Promoter undertakes to inform the Bank of any change in the national policy and regulation on PCB management and to provide annual reports detailing the implementation of the national and international policies in terms of inventory, transport, storage and final disposal of PCB equipment.
- The Promoter undertakes to implement a communication programme to inform residents, prior to starting construction works, on the technical aspects of the works undertaken, the mitigation measures implemented and access to grievance mechanism.