

Environmental and Social Strategy¹

A. Project Description and Context

- 1 The project sponsor, EDC, is the largest private-sector electric utility in Venezuela, which generates, transmits, and distributes electricity to the Caracas metropolitan area. Energy is generated at six thermo-power stations² in three locations, and transported through 100 transmission and sub-transmission substations, 1,300 kilometers of aerial and 817 kilometers of underground transmission lines in 223 circuits. The connection to the National Interconnected System of transmissions lines, is done through two 1,100 MW substations. In response to increasing power demand and aging equipment and facilities, EDC has developed a four-year investment plan for its company facilities and operations. The plan involves the following components: (a) distribution/retail system expansion and upgrades; (b) transmission system expansion and improvements; and (c) expansion and renovation of generating facilities. Under consideration for IDB financing, "The Project", is the component related to the distribution and transmission system expansion and upgrades (See Project Abstract).
- 2 The Project activities will occur across the areas of EDC operations, which is primarily in the metropolitan Caracas and surrounding areas. These areas are, for the most part, developed urban areas. EDC does, however, have transmission lines that pass within the Avila National Park. Caracas operations begin at the generation plants in the area of "Arrecifes" associated with the Tacoa Expansion and the Arrecifes Generation Facilities, located just west of the Simon Bolivar International Airport in the Vargas State. There is also the area around the Oscar Augusto Machado Generation Complex, located at km 8 (from Caracas) on the Pan-American Highway. The plant is located next to the Caricuao National Park.
- 3 Also included are EDC facilities serving the Cardón refinery complex and the Punto Fijo metropolitan area, located on the Paraguaná Peninsula in the State of Falcón in the northwest region of Venezuela.

B. Environmental and Social Compliance Status

- 4 Based on the Venezuelan Environmental legislation, none of the components of the EDC investment program are subject to an EIA or other environmental study, with the exception of a supply gas line extension at one of the generating plants.

¹ This Environmental and Social Strategy (ESS) is being made available to the public in accordance with the Bank's Policy on Disclosure of Information. The ESS has been prepared based primarily upon information provided by the project sponsors and does not represent either the Bank's approval of the project or verification of the ESS's completeness or accuracy. The Bank, as part of its due-diligence on the feasibility of the project, will assess the environmental and social aspects. This assessment will be presented in the project Environmental and Social Management Report, prepared by the Bank, and will be made available to public prior to consideration of the project by the Bank's Board of Executive Directors

² Fueled with natural gas, but some fuel-oil used as a back up source.

This extension is not part of the Project under consideration for IDB financing, but at any case the EIA for the pipeline has been completed and approved by the Venezuelan Ministry of the Environment and Natural Renewable Resources (MARNR).

- 5 Public consultation and alternative analysis have not been required under Venezuelan law for this Project's activities since they are considered minor extensions and upgrades of existing facilities. An alternative analysis and a public consultation program were, however, carried out as part of the EIA process for the pipeline expansion component of the overall investment plan.

C. Potential Risks and Impacts and Associated Control Measures

- 6 Much of the Project works will be completed at existing facilities with minimal impacts. The subprojects considered for the Project are mainly replacements of obsolete components and control elements by new technology, and the expansion and culmination of civil works for infrastructure. The majority of impacts and risks will be those traditionally associated with construction activities. The replacement of electrical equipment will result in the generation of hazardous and solid waste, which have the potential for environmental impacts if not disposed of properly. Also, there are potential impacts to the flora and fauna of some of the project areas, particularly new substations, although these are considered minor due to the urban environment where the activities will be located. Potential temporary and local social impacts such as power service interruptions and traffic are not likely to be significant. Operation of the expanded and rehabilitated network may potentially have minor incremental impacts related primarily to the health & safety risks of power transmission and distribution to workers and to people living nearby (especially squatters) who may come in contact with the equipment. No resettlement is envisioned.
- 7 Although not included in the Project, the one component of the EDC investment plan with the potential for significant environmental impacts is the construction of a 30 km pipeline as part of the expansion of the Tocoa generation facility. Potential impacts have been assessed and mitigation measures developed in an EIA that has already been submitted and approved by MARNR.
- 8 Since the great majority of the activities considered in the Project for financing are likely to generate low environmental and social impacts, the mitigating measures can be incorporated into construction management measures following best practices, all of which will be identified, budgeted, and scheduled in the Environmental and Social Management Plan (ESMP). The ESMP will be developed prior to the execution of construction Project activities.
- 9 EDC is developing an environmental management policy for the company. Currently it has a Risk Management Group (RMG) with a total of sixteen (16) full-time trained professionals in charged of managing environmental, social, and

H&S issues associated with construction and operations. The RMS is also responsible for the Emergency, Contingency, and Spill Prevention and Counter-control plans and procedures.

- 10 The RMG has also has developed environmental, health and safety audit protocols for the company. The protocols include the provision for preparing corrective action plans to remedy non-compliance issues, if necessary. EDC completed audits of its installations in 2002 and prepared corrective action plans for these facilities. For instance, EDC developed and implemented a plan for identifying and decommissioning PCB-containing equipment and successfully removed and appropriately disposed all PCB-containing existing equipment. These PCB oils and contaminated materials were sent to France (which operates high-standard PCB incineration facilities) for destruction. The exporting activities to France were carried out according to the pertinent environmental and international regulations. The total quantity of PCBs exported was 548 tons, which constituted 100% of the decommissioned equipment with PCBs. EDC's central RMG links to the field, plants, and other local operations through Safety Committees. There are a total of 26 safety committees, made up of 6-7 people each.
- 11 Other activities of the RMG have to date included: (a) the execution of several effluent and atmospheric evaluations; (b) the development of a community relations strategy and an environmental education campaign, and (c) the design and start up of a recycling program within the company and its subsidiaries.

D. Environmental and Social Strategy

- 12 The Bank will require the Sponsors to present an Environmental Analysis of the Project outlining environmental, social, and health and safety liabilities, risks and impacts associated with the Project, and information on the environmental, social, and health and safety liabilities, risks, and impacts related to both the existing operation and the overall EDC investment program.
- 13 The Bank, as part of the due diligence process, will analyze the environmental, social health and safety and labor aspects of the project and prepare an Environmental and Social Management Report (ESMR) for review and approval by the Bank's Committee on Environment and Social Impact (CESI). The environmental and social due diligence will specifically include the components listed below:

- a) An assessment of project compliance status with the applicable country (national, state, municipal) environmental, social, and health and safety regulatory requirements (*e.g.* laws, regulations, standards, permits, authorizations, applicable international treaties/conventions, etc.), Project-specific legal requirements (*e.g.* concession contract, etc.), and any applicable Bank environmental and social policy and guidelines;
- b) An evaluation of the proposed project to confirm that the Project's direct and indirect environmental and social impacts have been properly identified and evaluated, including related aspects of the overall investment program of which the Project is a component. In particular, an assessment will be made of the potential (i) liabilities associated to encroachment of people (squatters) into the ROWs of the transmission lines and the safety margins of the generation plants, and (ii) the potential impacts of the investment plan construction and operation activities to natural parks and other protected natural areas;
- c) An evaluation of potential, existing, and future environmental, social, or health and safety financial/credit risks and liabilities associated with the project, the project site, and the borrower;
- d) An evaluation to ensure adequate environmental and social mitigation measures and monitoring in terms of their completeness, sufficiency of detail, feasibility, cost, definition of responsibility, schedule, and quality control;
- e) An evaluation to ensure adequate health and safety plans and procedures, including their technical adequacy, given the potential project-specific health and safety risks, adequate level of training to be performed, and sufficient resources to be made available to ensure adequate implementation. If there is people encroachment in the transmission lines ROWs and other facilities, special emphasis will be given to an assessment of the adequacy of the plans to keep people away from stealing electricity and coming in contact with dangerous equipment;
- f) An evaluation to confirm adequate contingency plans, including confirmation that all relevant project-specific environmental risks have been identified, proper procedures have been developed, and sufficient resources will be made available to ensure adequate implementation;
- g) An evaluation of EDC compliance with the Fundamental Principles and Rights at Work and with any other international labor organization conventions and treaties which have been ratified by Venezuela;
- h) An evaluation of project-related information disclosure and public consultation activities that have been performed, as well as of the proposed future actions to provide adequate ongoing information disclosure and public consultation with the local population. Emphasis will be placed on the provision of clear and accessible

information for those near the facilities on the potential risks of trespassing and illegal connections to the lines, and other safety hazards;

- i) An evaluation, and further development as necessary, of project monitoring and supervision procedures to ensure proper implementation of environmental, social, and health and safety actions and requirements; and
- j) An evaluation of environmental, social, and health and safety terms and conditions in relevant project legal documents (*e.g.* concession contract, construction contract, operations and maintenance contract, etc.), in terms of sufficiency, potential risks or liabilities.