

TC ABSTRACT

I. Basic Project Data

▪ Country/Region:	BOLIVIA/CAN - Andean Group
▪ TC Name:	Support for the Implementation of Energy Efficiency Measures
▪ TC Number:	BO-T1335
▪ Team Leader/Members:	BALLON LOPEZ, SERGIO ENRIQUE (INE/ENE) Team Leader; CAMBLOR, ROBERTO ANDRES (CSD/HUD) Alternate Team Leader; INCHAUSTE DAZA, ADRIANA (CAN/CBO); SUBER, STEPHANIE ANNE (INE/ENE); TORIZ MONROY, MIRIAM PATRICIA (VPC/FMP); FORONDA NOGALES, SHIRLEY MABEL (VPC/FMP); SEMINARIO, ANA CECILIA (ITE/ITE); MARQUEZ BARROETA, FIDEL (INE/ENE); CARDENAS VALERO, JUAN CARLOS (INE/ENE); VANEGAS RICO, WILKFERG (INE/ENE); AOKI, ISSEI (INE/ENE)
▪ Taxonomy:	Operational Support
▪ Number and name of operation supported by the TC:	Program for the Development of Energy Efficiency in Street Lighting Systems in Bolivia. - BO-L1203
▪ Date of TC Abstract:	12 Mar 2019
▪ Beneficiary:	Plurinational State of Bolivia, through the Municipalities of La Paz and Santa Cruz
▪ Executing Agency:	INTER-AMERICAN DEVELOPMENT BANK
▪ IDB funding requested:	US\$600,000.00
▪ Local counterpart funding:	US\$0.00
▪ Disbursement period:	36 months
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	Energy
▪ Unit of Disbursement Responsibility:	Country Office Bolivia
▪ TC included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	Yes
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and innovation; Institutional capacity and rule of law

II. Objective and Justification

- 2.1 This Technical Cooperation (TC) aims to support Government of Bolivia (GoB) in the preparation and execution in the activities referred In the operation of BO-L1203, in addition, support for strengthening the capacities of the beneficiaries municipalities of the program, dissemination of results and the development of new potential projects of Energy Efficiency (EE) in Public Light (PL) in other cities of the country.
- 2.2 This technical cooperation (TC) is formulated to support the Program for the Development of Energy Efficiency in Street Lighting Systems in Bolivia (BO-L1203). The overall objective of the program is to support the sustainability of Bolivia's electricity matrix by promoting the efficient use of electricity through the implementation of Energy Efficiency (EE) measures. The program's specific objectives are: (i) to reduce the consumption of electrical energy used for public lighting system (PL) in the municipalities by replacing conventional lamps with more efficient ones and using new technologies for its operation; and (ii) improving public spaces through the rehabilitation of open areas. To achieve the objectives, the program will finance goods, works and services related to the replacement of conventional lamps in PL (in avenues, streets and parks) in the cities of La Paz and Santa Cruz de la Sierra, by

more Intelligent and efficient type of LED. The following will also be financed: (i) correction of poles and arms of posts as appropriate; (ii) installation of distance control system for a remote management of lightings; and (iii) Implementation of a solid waste management plan. The installation of remote management systems for lighting control will enable monitoring and control of PL, optimization of its maintenance and management, adjustment of the levels of lighting and monitoring the consumption, inter alias. Additionally, energy meters will be installed to PL to continuously record its energy consumption. For a replacement works of lamps, a hiring of local staff with a certain percentage of the participation of women will be a condition in the tender document, that is to be agreed in the coordination with the municipalities.

- 2.3 The activities to be financed by the program include aspects of innovation, digitalization, gender and diversity, productive local development and inclusion of people with disabilities, which are described below: (i) the incorporation of technological and digital innovation through Intelligent PL systems will improve lighting, optimize the consumption of electricity and increase the life of the luminaries. The lighting control system (tele-management system) will automatically adjust the lighting level according to the actual traffic levels, making use of the already installed telematic components. The improvement of PL systems will be complemented by the revitalization and improvement of some emblematic open public spaces of the beneficiary cities and, will promote and implement infrastructure designs that take into consideration the inclusion of people with disabilities; and (ii) labor insertion and productive local development through the training of electronics and EE skills for women and men in the municipal PL units and local personnel hired by the program. For the management of the solid waste generated by the change of luminaries, training will be carried out on better environmental and social practices in order to improve and strengthen the capacities of the Municipalities.

III. Description of Activities and Outputs

- 3.1 **Component I: Component I. Support for Preparation and Implementation of Program BO-L1203.** (i) revision and updating of the economic and technical aspects of the PL investments; (ii) technical expert related to the management of solid waste generated from the replacement of lamps; (iii) technical and economic design consultancy for the improvement of public space in the beneficiary cities; (iv) capacity building in energy efficiency and public lighting for the executing units and staff employed (Women and Men); and (v) support consultancy for the adequate implementation of the program.
- 3.3 **Component II: Component II. Support for Development of EE Projects in Bolivia.** The activities to be financed are: (i) consultancy of technical, economic, financial, procurement, environmental and legal support for the development of new EE projects in potential cities of Bolivia where EE to PL could be applied; and (ii) workshops on dissemination and exchange of experiences in the implementation of EE projects in PL. Workshops will also be financed to disseminate the results of this program with an emphasis on lessons learned in implementation and its best practices.

IV. Budget

Indicative Budget

Activity/Component	IDB/Fund Funding	Counterpart Funding	Total Funding
Component I. Support for Preparation and Implementation of Program BO-L1203	US\$510.000	US\$0	US\$510.000
Component II. Support for Development of EE Projects in Bolivia.	US\$90.000	US\$0	US\$90.000
Total	US\$600.000	US\$0	US\$600.000

V. Executing Agency and Execution Structure

- 5.1 This TC will be executed by IDB through the Energy Division (INE/ENE). IDB will act as executing agency by the request of the Government of Bolivia given the experience of IDB in the sector and the country, to facilitate coordination among the different actors of the beneficiary institutions of the TC. This TC will be executed by IDB through the Energy Division (INE/ENE). IDB will act as executing agency by the request of the Government of Bolivia given the experience of IDB in the sector and the country.
- 5.2 IDB will be responsible for selecting and hiring consulting firms and individual consultants. The acquisitions identified in this operation will be carried out in accordance with the following policies and procedures: For individual consultants, Human Resources Policies and Procedures (AM-650) Complementary workforce: contracting of consulting firms for intellectual-nature services: GN-2765-1 and its associated operational guidelines (OP-1155-4). Since the management of the resources is a responsibility of IDB, no audit is required or envisaged.
- 5.3 The implementation by IDB will facilitate hiring and conducting the studies and consultancies and maximize the technical knowledge of IDB in the different areas. Besides, the execution of TC by IDB will minimize the risks of duplication of efforts with other studies and TCs.

VI. Project Risks and Issues

- 6.1 The main identified risk is related to eventual delays in the implementation of the TC due to challenges in the coordination with different teams of the municipalities of the program and the TC. To mitigate these risks, IDB will hire technical consultants to support the validation of the products and will hold coordination meetings with the beneficiary institutions and other actors in the country.

VII. Environmental and Social Classification

- 7.1 The ESG classification for this operation is "undefined".