

**Technical Cooperation (TC) Abstract  
Community Light Centers (RG-T2502)**

**I. Basic project data**

▪ Country/Region:	Regional
▪ TC Name:	Community Light Centers
▪ TC Number:	RG-T2502
▪ Team Leader/Members:	Sylvia Larrea (INE/ENE), Project Team Leader; Olga Morales (INE/ENE); Sergio Ballon (INE/ENE); Vilcen Soave (INE/ENE); Arturo Alarcon (ENE/CBO) y Enrique Rodriguez (ENE/CPE); Haydemar Cova (INE/ENE); Heleno Barbosa (OPR/ORP); Claudia Piras (SCL/GDI); Ramiro Lopez Ghio (FMM/CCO); Fabian Koss (EXR/CSO); Gerardo Martinez (EXR/CSO); Javier Jimenez (LEG/SGO); Rene Herrera (VPC/FMP); under the supervision of Ariel Yepez, Division Chief (INE/ENE).
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination.	Client Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	N/A
▪ Reference to Request: (IDB docs #)	TBD
▪ Date of TC Abstract:	September, 2014
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Bolivia and Peru
▪ Executing Agency and contact name (Organization or entity responsible for executing the TC Program)	Local Communities and Local Non-Governmental Organizations (NGOs)
▪ IDB Funding Requested:	US\$374,000
▪ Other co-financing	Philips in-kind contribution
▪ Local counterpart funding, if any:	In-kind contribution
▪ Disbursement period (which includes execution period):	36 months
▪ Required start date:	December, 2014
▪ Types of consultants (firm or individual consultants):	Firms and consultants
▪ Prepared by Unit:	INE/ENE
▪ Unit of Disbursement Responsibility:	ENE
▪ Included in Country Strategy (y/n);	No
▪ TC included in CPD (y/n):	No
▪ GCI-9 Sector Priority:	(i) Social policy for equity and productivity; (ii) Infrastructure for competitiveness and social welfare; (iii) Institutions for growth and social welfare; and (iv) Environmental protection, response to climate change and food security.

**II. Objective and Justification**

- 2.1 The general objective of this TC is to use sustainable sources of electricity to support community development through sporting events promoting social inclusion, public safety, and equal opportunities. The specific objective is the installation of pilot projects using high efficiency Light-Emitting Diode (LED) lighting technology powered with solar panels or powered by any other renewable energy technology in sports fields of rural and urban communities.

- 2.2 Justification. Latin America and the Caribbean (LAC) is one of the most unequal regions in the world. In particular, 30 million people lack access to electricity in LAC. In Bolivia and Peru, 2 million and 3 million people, respectively, lack access to electricity. Most of these people are located in rural areas where the connection to the electric grid is an economic and financial challenge. Likewise, due to unplanned migration, there are many urban areas in the surroundings of cities without access to electricity services. Inequality in terms of electricity access affects development opportunities, growth acceleration, sustainable poverty reduction and greater social inclusion.
- 2.3 Due to the existing inequality in LAC, 53.5 percent of young people between 13 and 23 years of age in LAC are not enrolled in school. Currently, the Bank is successfully using the benefits of sports as a development tool to motivate, train and retain young people in schools and other activities. The proposed Program: Community Light Centers seeks to combine the use of efficient and renewable energy technology with the benefits of sports for social development to: (i) Foster community life. The illuminated areas will provide a focal point for the community, allowing people to come together and enjoy playing football, whether it is school children playing after school or two neighboring villages, or other social activities, extending the area's hours of use; and (ii) Transfer Knowledge. The Project will train technicians in the communities in the use and maintenance of modern renewable energy technology (i.e., solar LED lighting) and train coaches in sporting and social issues to promote the development of the community.
- 2.4 The Program will provide electricity to poor communities, focused around community centers and sport fields, using high efficiency LED lighting technology powered with solar panels or powered by any other renewable energy technology in areas that do not have access to the public electricity network. In doing so, the pilot rural (or peri-urban) communities will enjoy a "last mile" sustainable energy infrastructure. Currently, these sports fields are only used during the day due to the lack of public lighting. With the installation of efficient and renewable energy technology, the operation hours of community centers and sport fields will be extended enabling them to serve not only as sports facilities, but also as multidisciplinary centers (social, health, education). Thus, the Program has the potential to improve the quality of life for youth and their families through the creation of multidisciplinary safe spaces allowing the development of community life at night.
- 2.5 A strategic alliance with Philips has been created for the development and sustainability of the Program. Philips is a leading company with recognized expertise in the development, manufacturing and application of innovative lighting solutions with LED technology<sup>1</sup>. This partnership aims to support the transfer of technical knowledge and qualified experience from Philips to the communities where the Program will be implemented. Furthermore, the Program will support the development of new alliances with community leaders and local NGOs to manage the use of lighted community centers and sports fields and oversee the implementation, progress and sustainability of the Program on site.
- 2.6 The Program is aligned with institutional priorities of the IDB as indicated in the Ninth General Capital Increase (GCI-9), contributing to 4 of the 5 strategic priority areas: (i) Social policy for equity and productivity through expansion and access to basic services; (ii) Infrastructure for competitiveness and social welfare through the expansion of infrastructure and energy efficiency; (iii)

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<sup>1</sup> Currently, Philips has completed the installation of lighting facilities in several countries in Africa and LAC.

Institutions for growth and social welfare institutions that are enhanced by strengthening public safety and social rehabilitation; and (iv) Protection of the environment in response to climate change by promoting renewable energy.

- 2.7 Additionally, the Program supports the strategies of the IDB in the involved countries, considering: (i) increase generation of electricity from clean and renewable sources of energy (Bolivia 2011-15, Peru 2012-16); (ii) stimulate economic and social inclusion by improving life conditions for vulnerable population (Peru 2012-16); and (iii) improve the infrastructure of the country (Bolivia 2011-15). It is expected that the development of this Program and its evaluation will serve to replicate the Program in other communities in LAC.

### III. Description of activities and outputs

- 3.1 **Component I: Infrastructure Development.** This will finance: (i) identification and selection of 20 community centers / sports fields for the installation of LED lighting technology powered by solar panels or powered by any other renewable energy technology, (ii) design and planning of the installation; and (iii) procurement of civil works necessary for the installation and operational set-up of the lighting. Philips will provide the LED technology lights as part of its in-kind contribution.
- 3.2 **Component II: Knowledge Transfer.** This will finance: (i) technical training in the use and maintenance of electrical systems installed on the sports fields ensuring long-term proper operation; (ii) training of coaches (certified trainers) on sporting and social issues so that they exert a positive influence on the community; and (iii) institutional strengthening and capacity building for key entities of the community and partnering NGOs.
- 3.3 **Component III: Communication, publication and dissemination.** Component III will finance communication, publication and dissemination of the results to promote the Program's replicability in other communities of the region.
- 3.4 **Budget.** The total cost of the Program is US\$841,500 and is expected to be financed by: (i) IDB's funding of US\$374,000; (ii) Philips in-kind contribution of US\$457,500; and (iii) Local counterpart in-kind contribution of US\$10,000, as presented in the table below.

Activity/Component	Description	IDB/ Fund Funding	Philips*	Counterpart Funding	Total Funding
<b>Component I: Infrastructure Development</b>	<b>Materials:</b> luminaire and lighting controls for 20 sports fields		323,400		323,400
	<b>Installation:</b> poles, material transportation and installation for 20 sports fields	95,000	134,100		229,100
<b>Component II: Knowledge Transfer</b>	Technical training to communities and coaches' training	84,000			84,000
<b>Comp. III: Communication, Publication and Dissemination</b>	Communication, publication and dissemination expenditures	50,000			50,000
<b>Support the Implementation of the Program</b>	<b>Coordinator:</b> general implementation, budget control, and new partnerships' identification for further Program improvements.	80,000			80,000
<b>Evaluation and Monitoring</b>		50,000		10,000	60,000
<b>Contingencies</b>		15,000			15,000
<b>Total</b>		<b>374,000</b>	<b>457,500</b>	<b>10,000</b>	<b>841,500</b>

### IV. Executing agency and execution structure

- 4.1 The Program will be executed by local communities and local NGOs in each country to enhance community commitment. In order to assist the monitoring of the program execution the IDB through

its Energy Division (INE/ENE)<sup>2</sup> will hire two Program Coordinators (one based in each country). The Program Coordinators will also ensure the dissemination of information and lessons learned in each of the countries. Also, all the activities will be coordinated with the Energy Specialists based in the country offices of Bolivia and Peru.

**V. Project risks and issues**

- 5.1 The main risks are associated with delays in identifying and selecting the communities / sports fields, the long term sustainability of the Program due to changes in the responsible authorities and/or lack of local support. These risks will be mitigated through interaction with authorities in which the Bank already has projects and by establishing agreements for monitoring and sustainability of the Program.
- 5.2 In addition, the sustainability of the systems will be ensured by the warranties of the products and with the signature of agreements with the beneficiary municipalities, in which the responsibilities and funding sources for the maintenance of the equipment's will be clearly specified.

**VI. Environmental and social classification**

- 6.1 No environmental or social risks are expected. We expect a classification C.

Approved:

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(Original Signed)  
Ariel Yepez, Chief, Energy Division

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<sup>2</sup> Implementations of agreements with municipalities are expected, where the soccer fields are located to have their support during the installation of the luminaires.