

**SUPPORT THE DEVELOPMENT OF ENABLING INSTITUTIONAL, POLICY AND REGULATORY  
ENVIRONMENTS FOR ENERGY EFFICIENCY (EE)**

**PR-T1257**

**CERTIFICATION**

The Grants and Co-Financing Management Unit (ORP/GCM) received the commitment of the **Green Climate Fund (GRN)** for up to US\$700,000 as confirmed by the Fund Coordinator, Brady Martin (ORP/GCM), March 30, 2018. An operation financed by the GRN receives a conditional certification given the circumstances of the Accreditation Master Agreement between GRN and the IDB. As such, a commitment by the GRN does not have validity until the Funded Activity Agreement (FAA) between the IDB and the GRN is agreed upon and signed for an operation. Therefore, this certification will remain conditional until the FAA is signed and effective.

Certified by:

Original Signed

07/19/2018

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Sonia M. Rivera  
Chief  
Grants and Co-Financing Management Unit  
ORP/GCM

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Date

Approved by:

Original Signed

07/20/2018

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Rigoberto Ariel Yepez-Garcia  
Division Chief  
Energy Division  
INE/ENE

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Date

## Technical Cooperation Document

### I. Basic Information for the Technical Cooperation (TC)

▪ Country/Region:	Paraguay/CSC
▪ TC Name:	Support the development of enabling institutional, policy and regulatory environments for Energy Efficiency (EE)
▪ TC Number:	PR-T1257
▪ Team leader/Members	Roberto Aiello (ENE/CPR) Team Leader; Emilio Sawada (ENE/CUR) Alternate Team Leader; Joel Hernández, Jeanette Bonifaz (INE/ENE); Manuel Fernandini (CMF/CPR); María Netto, Omar Villacorta, Gloria Lugo, Alex Vasa, Johan Arroyo, and Annabella Gaggero (IFD/CMF); Filippo Berardi, Gloria Visconti, Margarita Cabrera (CSD/CCS); Alonso J. Chaverri-Suarez (LEG/SGO); Daniel Hincapie Salazar (ORP/PTR), and Fernando Glasman, Jorge Luis González (FMP/CPR)
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination	Operational Support
▪ Associated Loan/Guarantee Name:	PR-L1146: Promoting private sector investments in energy efficiency in the industrial sector in Paraguay
▪ Date of TC Abstract authorization:	N/A
▪ Beneficiary (recipient countries or entities of technical assistance):	Vice Ministry of Mining and Energy
▪ Executing agency and contact name:	Inter-American Development Bank (IDB), through its Energy Division (ENE)
▪ Donors providing funding:	Green Climate Fund (GCF) <sup>1</sup>
▪ IDB funding requested:	US\$700.000 from GCF
▪ Local counterpart funding (if any):	N.A.
▪ Disbursement period:	48 months for execution and 36 months of disbursement
▪ Required start date:	April 1 <sup>st</sup> , 2018
▪ Types of consultants:	Firms and individual contractuels
▪ Prepared by the Unit:	INE/ENE
▪ Unit of Disbursement Responsibility:	INE/ENE
▪ Included in Country Strategy:	Yes
▪ TC included in CPD:	No
▪ Alignment to the Update to Institutional Strategy 2020-2020:	The proposed operation is aligned with the challenges of productivity and innovation by the promotion of energy efficiency programs and initiatives, and with the cross-cutting theme of climate change by reducing energy related greenhouse gas emissions

<sup>1</sup> The GCF is a United Nations Framework Convention on Climate Change (UNFCCC)'s financial mechanism that provides funding to promote mitigation and adaptation to climate change. The IDB is an entity accredited by the GCF to manage these resources. The framework for this relationship is established in the "Accreditation Master Agreement" (AMA) between the GCF and IDB approved by the IDB Board Executive Directors (GN-2895, Resolution DE-31/17). The GCF approval for the use of resources for this operation took place at the 19<sup>th</sup> meeting of the GCF Board. Use of such resources will be subject to the terms of such approval, the requirements set forth in document GN-2895, and the terms and conditions of the AMA (once it becomes effective) and of a Funded Activity Agreement (FAA) to be entered between the Bank and the GCF pursuant to the Clause 6 of the AMA.

## II. Description of the Associated Loan

- 2.1 The Inter-American Development Bank (IDB) will provide financial support to the Government of Paraguay through the *Agencia Financiera de Desarrollo* (AFD) – the development bank of Paraguay – to finance the “Promoting private sector investments in energy efficiency in the industrial sector in Paraguay” (PR-L1146)<sup>2</sup> (here after the “program”) with reimbursable resources from the Green Climate Fund (GCF)<sup>3</sup>. The objective of the program is to promote Energy Efficiency (EE) in the industrial Small and Medium Enterprise (SME) sector in Paraguay by providing medium and long-term finance for EE investment projects.<sup>4</sup> The successful implementation of financed projects will contribute to reduce Greenhouse Gases (GHG) emissions, thereby supporting the progress towards achieving the country’s climate change goals through the Nationally Determined Contribution (NDC)<sup>5</sup> of 20% GHGs reduction in 2030.

## III. Objectives and Justification of the TC

- 3.1 **Objective:** The objective of the TC is to support the execution of the program, “Promoting Private Sector Investments in EE in the Industrial Sector in Paraguay,” including through a more efficient and sustainable use of biomass and other EE technologies.
- 3.2 This TC supports the Vice-Ministry of Mining and Energy (VMME) of the Ministry of Public Works and Communications (MOPC) of Paraguay in promoting an enabling environment for private investments in EE by addressing institutional, policy and regulatory barriers, in particular to enhance the execution of policies to reduce energy intensity across the economy and improve the efficiency and sustainability of biomass as energy source.<sup>6</sup> This will include: (i) institutional strengthening through the review and recommendation of relevant EE policies, regulations, and institutional and legal frameworks; (ii) developing EE initiatives and programs; (iii) collecting and analyzing data related to the current use of biomass as an energy source across sectors; (iv) assessing relevant technological improvements and practices to transition to more efficient and sustainable use of biomass; and (v) several capacity-building and dissemination events for key stakeholders.
- 3.3 As a result of this TC, the beneficiary is expected to have a more robust understanding of the use of biomass as an energy source across end-use sectors, the challenges and opportunities to transition towards improved technologies and practices, and how to design and implement EE actions, including policies and regulations to promote and achieve more efficiency and sustainability in the sector. Furthermore, this TC will also benefit participating industrial SMEs from various

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<sup>2</sup> The Project Profile of this operation was approved on January 8, 2018.

<sup>3</sup> The program comprised of US\$20 million in reimbursable resources from GCF, plus US\$20 million from AFD (local co-financing). Although two additional TCs including: (i) this TC (PR-T1257) to support the preparation and implementation of the Loan PR-L1146 to promote execution of its policies to reduce energy use in private sector, in particular use of biomass; (ii) another TC (PR-T1249) to support AFD to adequately engage LFI, SMEs and technology providers in the program.

<sup>4</sup> Program activities include financing mechanisms, as well as non-financial instruments that aim to improve local technical capacity and knowledge on EE investments by LFI and SMEs.

<sup>5</sup> The NDCs are public outlines of climate actions countries intend to take under the new international agreement adopted in December 2015 at the Conference of the Parties (COP21) in Paris. EE is prioritized in [Paraguay’s NDC](#), which commits GHG emission reductions.

<sup>6</sup> Idem footnote 3.

sectors, including EE service providers and vendors, Local Financial Institutions (LFIs), and the National Committee of Energy Efficiency (CNEE)<sup>7</sup> which includes universities, other ministries, and national entities.

- 3.4 **Background:** Paraguay has already taken several steps to promote EE, including: (i) implementing regulations on EE in electrical installations; (ii) launching an EE labeling program; and (iii) creating the CNEE within the MOPC.
- 3.5 Guidelines<sup>8</sup> prepared in collaboration with the IDB and the AFD show that Paraguay has a large potential to promote EE measures within its industrial SME sector. The potential energy savings that can be achieved through concerted actions taken in this sector could reach at least 10% of the net energy demand of industrial SMEs in Paraguay.<sup>9</sup> EE measures by industrial SMEs are expected to result in the reduction in the use or displacement of firewood, the second-largest fuel source for the industrial SME sector,<sup>10</sup> thereby increasing productivity and contributing to reductions in GHG emissions.
- 3.6 The guidelines also show that despite SME interest in improving their businesses with more energy-efficient technologies, EE investments in Paraguay are hindered by the lack of medium and long-term financing and perceived risks by SMEs and LFIs regarding these investments. In particular: (i) from the SMEs perspective, perceived risks associated with EE technologies are related to their higher up-front costs, lack of information or trust in the performance of new equipment, and availability of reliable service for their installation and maintenance by local energy and technology service providers; and (ii) from the perspective of LFIs, their traditional “asset-based” lending approach limits the firms’ borrowing capacity. LFIs give little or no collateral value to EE equipment and typically do not recognize or are not willing to rely upon the project’s positive cash flows to determine a firm’s repayment or borrowing capacity. Furthermore, even if they would accept to consider such cash flows, the lack of experience to validate the risks involved in generating them restrains LFIs from considering EE projects as bankable business opportunities.
- 3.7 **Strategic alignment:** This TC is aligned with the priorities relating to energy, productive development and financial sector of the IDB Country Strategy with Paraguay (2014-2018) (GN-2769). The TC is also consistent with Bank’s priorities as set out in its Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy (GN-2609-1) and is aligned with the Support to SMEs and Financial Access/Supervision Sector Framework Document (GN-2768-7), the Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (GN-2710-5) and the Sector Strategy Institutions for Growth and Social Welfare (document GN-2587-2). According to the multilateral development banks’ approach on climate finance tracking, an estimated 100% of total IDB funding for this project is

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<sup>7</sup> With Decree No. 6377/2011 of 31 March 2011, the CNEE was created.

<sup>8</sup> [Carlino, H.; Netto, M.; Cabrera, M., Guía para la estructuración de instrumentos financieros para la promoción de la eficiencia energética: Estudio de caso de la AFD de Paraguay](#), BID, abril 2017.

<sup>9</sup> As part of the project design, this will focus on uses and technologies that are commonly used in specific sub-sectors identified, through which greater energy savings could be attained in Paraguay.

<sup>10</sup> The first-largest energy use in industrial sector is the “Others biomass waste” identified such as agro-forest waste (coconut waste, cotton shell waste, sugarcane husks and others) with 587,06 tons oil equivalent (toe) as of 2015; firewood shared 502,56 toe, which all together sourced 80,5% of the energy consumed by the country’s industrial sector (for power, direct heat and steam) and is often used very inefficiently, the remaining 19,5% corresponds to fossil fuels and electricity. [National Energy Balance of Paraguay 2016, September 2017.](#)

associated with activities which promote climate change mitigation objectives. This contributes to the IDBG's climate finance goal of 30% of combined IDB-Group operational approvals by year's end 2020. Further, it is aligned with Paraguay's National Development Plan 2030,<sup>11</sup> National Energy Policy, National Climate Change Plan, National Climate Change Policy and the NDC, where improvement of EE is one of the strategic areas identified to promote increased competitiveness, productivity and GHG emissions reductions. The program will be jointly prepared by IFD/CMF, INE/ENE and CCS/CSD (triple booking).

- 3.8 The present TC will be complemented by another TC (PR-T1249) supporting the AFD in addressing barriers for SME industry investments in EE, which complements the provision of financial instruments through the program with a series of non-financial instruments aimed at distributing and managing risks, to mobilize demand and engage SMEs and LFI in EE investments.

#### IV. Description of Activities/Components and Budget

- 4.1 This TC is designed to support the implementation of the program PR-L1146, by supporting the development of an institutional, policy and regulatory environment to increase private investments in EE with a focus on the reduction in use or displacement of firewood, seeking to reduce energy intensity across the economy and improve the efficiency and sustainability of biomass as an energy source. The TC activities are based on the following three components:
- 4.2 **Component 1: Institutional Strengthening to Promote EE (US\$250,000)** - will finance the technical assistance to: (i) review and/or update policy, institutional, legal and regulatory frameworks relating to EE with a focus on, but not limited to, the use of biomass as energy source; and (ii) develop related EE programs and initiatives.
- 4.3 **Component 2: Efficiency and Sustainability of Biomass as Energy Source (US\$250,000)** - will finance the technical assistance to support: (i) the collection and analysis of data related to the use of biomass as an energy source across sectors by considering its market structure and supply chain; and (ii) targeted studies to assess further relevant technological improvements and practices to transition to more efficient and sustainable uses of biomass.
- 4.4 **Component 3: Capacity Building, Dissemination and TC Management (US\$200,000)** - will finance activities such as: (i) capacity building for relevant stakeholders on EE practices with a focus on but not limited to biomass; (ii) relevant dissemination activities; and (iii) TC implementation and management support. Activities to be financed include the dissemination of information in workshops, national and regional events organized by the IDB and/or the government, online media, on-the-job training on EE as appropriate, and workshops for public and private actors to encourage cross-sharing of experiences including south-south cooperation.
- 4.5 To ensure proper execution of the proposed program, the project team will organize meetings and conference calls, mid-term and final reviews with the VMME representatives and the consultants for each of the phases during the design and implementation of the planned activities.

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<sup>11</sup> <http://www.stp.gov.py/pnd/wp-content/uploads/2014/12/pnd2030.pdf>

- 4.6 **Indicative budget.** The total amount of this operation is US\$700,000, which comes from GCF grant resources. This financing will be used to finance the services of expert consultants as well as logistics and implementation support to implement all components.

Activity/Component in associated Loan	TC Components	IDB/GCF
Enhanced execution of energy policies to reduce use of Wood	Component 1. Institutional strengthening to promote EE	250,000
	Component 2. Efficiency and sustainability of biomass as energy source	250,000
	Component 3. Capacity building, dissemination and TC management	200,000
<b>Total</b>		<b>700,000</b>

## V. Executing Agency and Execution Structure

- 5.1 Given the complexity of technical inputs and the beneficiary's basic experience, the IDB will be Executing Agency (EA) through the Energy Division to enhance the quality control of the studies and methodologies and minimize the execution time.
- 5.2 IDB execution would be carried out in accordance with the Operational Guidelines for Technical Cooperation (TC) Products – Revised version (GN-2629-1) and its Appendix 10 as an Operational Support. The beneficiary's request for the IDB to execute this TC is enclosed (see Annex I). All activities to be executed under this TC have been included in the Procurement Plan (see Annex IV) and will be executed according with the procurement methods established by the IDB, such as: (i) hiring of individual contractual established in the "Human Resources Policies (HRD's Complementary Workforce Employees) regulations (AM-650); and (ii) hiring of consulting firms for intellectual services according with the Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-1) and its associated operative guidelines (OP-1155-4). The Bank will be acting in this capacity of accredited entity and EA of the GCF; the execution of this TC will also be subject to the terms and conditions of an FAA to be signed between the Bank and the GCF.
- 5.3 Project Monitoring will be carried through the following mechanisms: technical meetings with counterparts, IDB and consultants.
- 5.4 The Bank will prepare progress reports annually, which will contain at least: the status of the financial progress, the progress and results achieved, report on the activities carried out, lessons learned, and best practices identified, any other information to meet the requirements agreed with the donor. Any and all additional reports or information required under the reporting obligations to be established in the applicable FAA will also be provided in a time and form that allows the Bank to comply with such obligations.

## **VI. Major Issues**

- 6.1 In view of the high technical level of the proposed TC, the major risk is the implementation management to ensure high quality results. This risk is mitigated by having the TC be executed by the Bank within the IDB's Energy Division, who will provide ongoing monitoring activities and overall evaluation of the program. Peer reviewers to analyze the products produced may also be considered.
- 6.2 Other risks include the change of government administration in 2018 and its potential lack of engagement to this program. To mitigate this risk, the Bank is working closely with the VMEM's permanent technical staff and will keep close communication with the new government officials regarding the progress of this project.

## **VII. Exceptions to Bank Policy**

- 7.1 No exceptions to Bank policy are envisioned.

## **VIII. Environmental and Social Strategy**

- 8.1 There are no envisioned environmental or social risk associated with this TC. No potential negative environmental or social impacts were identified and therefore no mitigation strategy is needed and therefore this TC has been classified Category C according to the [Safeguard Policy Report](#) and [Safeguard Screening Form](#).

## **Required Annexes**

- Annex I: [Letter of request](#)
- Annex II: [Results Matrix](#)
- Annex III: Terms of Reference
  - TORs#1. [EE dissemination and awareness rising.](#)
  - TORs#2. [Data collection and analysis of biomass utilization.](#)
  - TORs#3. [Review of EE policy, regulatory and institutional framework.](#)
  - TORs#4. [Technical EE project implementation and management support.](#)
- Annex IV: [Procurement plan.](#)