

# Board of Executive Directors

## Simplified Procedure

On or after 17 December 2014

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**Simultaneous Disclosure**

**To:** The Executive Directors  
**From:** The Secretary  
**Subject:** Guatemala. Proposal for a loan for the “Multiphase Rural Electrification Program – Phase II” and Memorandum of Evaluation of Phase I

**Basic Information:** Loan type ..... Multiphase Program Loan (PFM)  
Borrower ..... Republic of Guatemala  
Amount ..... up to US\$49,100,000  
Source ..... Ordinary Capital  
Amount ..... up to US\$4,720,000  
Source ..... Single Currency Facility of the Ordinary Capital  
Amount ..... up to US\$1,180,000  
Source ..... Fund for Special Operations

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**Remarks:** This operation is the second in a series of two multi-phase program loans. Therefore, it qualifies for approval by Simplified Procedure regardless of the amount of the loan or its inclusion in the country strategy, as stipulated in document GN-2085-2 “Proposal for new flexible lending instruments”.

The financing for this operation corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank.

**Reference:** GN-1838-1(7/94), DR-398-14(6/13), GN-2085-2(3/00), DE-29/00, AB-2504(11/06), AG-9/06, PR-3309(10/08), DE-122/08



DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**GUATEMALA**

**MULTIPHASE RURAL ELECTRIFICATION PROGRAM - PHASE II  
(GU-L1084)**

**MEMORANDUM OF EVALUATION OF PHASE I  
(GU-L1018)**

AND

**LOAN PROPOSAL FOR PHASE II  
(GU-L1084)**

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ELECTRONIC LINKS	
<b>REQUIRED</b>	
1.	Multiyear execution plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943652">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943652</a>
2.	Monitoring and evaluation plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943615">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943615</a>
3.	Itemized procurement plan <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943574">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943574</a>
4.	Environmental and Social Management Report (ESMR) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38983718">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38983718</a>
<b>OPTIONAL</b>	
1.	Phase II economic analysis annex <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954152">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954152</a>
2.	Multiphase Rural Electrification Program, Phase I evaluation report. <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38878334">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38878334</a>
3.	Analysis of compliance with the Public Utilities Policy <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38877912">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38877912</a>
4.	Draft contract for the expansion and amendment of the INDE management trust fund for rural works in the west and east. INDE July 2014. <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38972875">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38972875</a>
5.	Legal framework governing Guatemala's electric power subsector. Compendium of Laws and Regulations <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954321">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954321</a>
6.	Regulation 56 governing isolated systems using renewable resources for rural electrification in isolated zones <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954322">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38954322</a>
7.	Rural Electrification Master Plan (PMER) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37294340">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=37294340</a>
8.	Component 3 Report – Information strategy, training, and administrative support. INDE –August 2014 <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38973155">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38973155</a>
9.	Electric power coverage index – Ministry of Energy and Mines (MEM) <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38981159">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38981159</a>
10.	Environmental and Social Safeguards Evaluation Report and Form <a href="http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38747584">http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38747584</a>

## ABBREVIATIONS

AWP	Annual work program
COCODE	Consejo Comunitario de Desarrollo [Community Development Council]
CTF	Comité Técnico del Fideicomiso [Trust Fund Technical Committee]
DEOCSA	Distribuidora de Electricidad de Occidente [Western Power Distribution Company]
DEORSA	Distribuidora de Electricidad de Oriente [Eastern Power Distribution Company]
EIRR	Economic internal rate of return
ENPV	Economic net present value
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
FFF	Flexible Financing Facility
FSO	Fund for Special Operations
GERO	Gerencia de Electrificación Rural y Obras del INDE [INDE Rural Electrification Department]
INDE	Instituto Nacional de Electrificación [National Electrification Institute]
LGE	Ley General de Electricidad [General Electricity Law]
MEM	Ministry of Energy and Mines
MEP	Monitoring and evaluation plan
MINFIN	Ministry of Public Finance
OC	Ordinary Capital
PER	Plan de Electrificación Rural [Rural Electrification Program]
PEU	Program executing unit
PMER	Plan Maestro de Electrificación Rural [Rural Electrification Master Plan]



## I. DESCRIPTION AND RESULTS MONITORING

### A. Background, problems addressed, rationale

- 1.1 **Electricity coverage.** Guatemala's total population amounted to 14.6 million in late 2013, of whom 52% live in rural zones, where the poverty rate in 2011 was above 70%.<sup>1</sup> The lowest electricity coverage rates are in the northern and western regions of the country, where 29% and 43% of households, respectively, do not have electric power. In 2011, 523,206 households were identified in the Rural Electrification Master Plan (PMER)<sup>2</sup> as lacking access to electricity, and 493,590 (94.3%) of these were located in rural zones characterized by high poverty rates and inhabited by indigenous population groups. The lowest coverage rates are reported in the departments of Alta Verapaz, Petén, Baja Verapaz, and Quiché, all of which suffer from high levels of extreme poverty, with rates of 46.7%, 27.3%, 19.8%, and 20.1%, respectively.<sup>3</sup> Within these communities, there are ethnicity-based disparities in access to the service. Most homes without access to electric power are indigenous households in remote villages and hamlets, where the cost of electrification makes the service unprofitable for private suppliers, and the process is constrained by the availability of public resources. Twenty percent of households headed by an indigenous person lack the service, compared to 8% of other households, according to the National Employment and Income Survey of 2010.
- 1.2 Since the late 1990s, the Guatemalan government has been promoting investments in electrification through the Rural Electrification Plan (PER), with the aim of expanding national electricity coverage and providing safe and reliable electric service to rural communities. As a result, the country's rural electrification rate rose from 63% in 1999 to 83% in 2011<sup>4</sup> and 89.5% in 2013. To implement the PER, the Management Trust Fund for INDE Rural Works in the West and East (Trust Fund) was set up with capital of US\$333.6 million. Of that amount US\$182.7 million was allocated to rural distribution works, and US\$150.9 million to the transmission works needed to expand the distribution grids, with the aim of bringing electric power to 280,629 new users during the Trust Fund's execution period. The government has provided all of the Trust Fund's capital, and 230,000 new users had been connected to the electric power service as of June 2014.
- 1.3 To support the PER, the Bank has been collaborating with the Guatemalan government in rural electrification investments through the Multiphase Rural Electrification Program approved in 2008, which is designed to be executed by INDE in two phases. Phase I (GU-L1018) is providing US\$55 million in financing to the PER Trust Fund, setting targets and objectives, the fulfillment of which was defined as a requirement for phase II of the program to be submitted for consideration by the Bank's Board of Executive Directors. Phase I is at an

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<sup>1</sup> World Bank. World DataBank. World Development Indicators. 2011.

<sup>2</sup> Rural Electrification Master Plan. NRECA International Ltd. 2012.

<sup>3</sup> Map of poverty in Guatemala 2011. INE, World Bank.

<sup>4</sup> Energy Policy 2013-27. (<http://www.mem.gob.gt/wp-content/uploads/2013/02/PE2013-2027.pdf>).



advanced stage of execution, and the requirements for considering phase II have been fulfilled ([optional electronic link 2](#)). In 2011, with Bank support through technical cooperation operation GU-T1120, the government developed a programmatic strategy for attaining the PER objectives. This was set out in the Rural Electrification Master Plan (PMER) ([optional electronic link 7](#)), which presents a program of grid densification and extension projects, as well as solutions for isolated zones using renewable energy sources (paragraphs 1.10 to 0).

- 1.4 **Sector institutional framework.** The Ministry of Energy and Mines (MEM) is the sector's governing body, with responsibility for implementing energy policy, including electrification coverage. The electric power sector is governed by the General Electricity Law (LGE) of 1996 ([optional electronic link 5](#)). The main national electric power company, INDE, is an autonomous self-financing state entity, with its own capital, legal identity and full capacity to acquire claims and contract obligations within its sphere of authority. It is organized as a holding company or corporation, with three administratively independent firms: the Electric Power Generation Company (EGEE), the Electric Power Transportation and Control Company (ETCEE), and the Power Commercialization Company (ECOE), which are responsible for the electric power generation, transportation, and marketing businesses, respectively. INDE's Rural Electrification and Works Division (GERO) is responsible for preparing rural electrification plans pursuant to the policies issued by the government. Electric power is distributed by two private firms, DEORSA and DEOCSA, which are contractually obligated to provide the power grid service to populations desiring it, within 200 meters of existing grids, in their concession zone.
- 1.5 **The Guatemalan government's rural electrification strategy.** The 2013-2027 energy policy is based on the LGE and the Guatemalan Constitution. The latter declares the urgent need for electrification in the country and tasks the government with taking the steps needed for the efficient conservation, development, and exploitation of natural resources, and creating suitable conditions for attracting both national and foreign investment. The rural electrification strategy for implementation of the PER is defined in detail in the PMER. One of the five strategic pillars of the government's 2012-2016 plan "Agenda for Change", namely Productive and Social Infrastructure for Local Development, defines a policy of increasing the country's electrification rate, by bringing electricity to rural and isolated communities to stimulate job-creating productive activity; and its Sustainable Rural Development pillar aims to boost rural competitiveness, by expanding the size of the rural population with access to productive infrastructure.
- 1.6 **The Bank's country strategy with Guatemala.** The specific objectives of the Bank's Country Strategy with Guatemala 2012-2016 (document GN-2689) include increasing per capita rural income, particularly among households living in poverty and extreme poverty, and diversifying the income sources of rural households. The country strategy includes the energy sector as a subject of dialogue for considering investment operations, subject to progress in implementing operations in the sector.

Phase I of the PMER has shown significant progress, enabling development of the next phase. Phase II of the program being proposed is consistent with the guidelines of this strategy. According to the bibliography, which can be consulted in the Monitoring and Evaluation Plan ([MEP](#)), electrification opens up opportunities for diversifying and improving the productive incomes of the poorest rural population groups, particularly indigenous peoples. For example, Khandker et al. (2012 and 2013) estimate that rural electrification increases household income and children's schooling, among other positive effects.

- 1.7 **Strategic alignment.** The program will contribute to the lending program priorities of the Ninth General Increase in the Resources of the Inter-American Development Bank (document AB-2764) (GCI-9) in terms of: support for the development of small and vulnerable countries; (ii) poverty reduction and equity enhancement, by targeting its activities on the poorest rural zones, which are mostly indigenous; the inhabitants of rural areas without electricity are vulnerable families with high rates of poverty (56%) and extreme poverty (16%), and less access to basic services; and (iii) support for initiatives on climate change, renewable energy, and environmental sustainability, through the supply of renewable energy to meet the rural population's needs. The program will contribute to regional targets in terms of: (i) the percentage of households with electricity; and (ii) the total length (in kilometers) of transmission and distribution lines installed or upgraded; and (iii) the percentage of power generation obtained from low carbon emission sources out of total power generation financed by the Bank.
- 1.8 The program is aligned with the priority areas of the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth: (Operational Policy OP-1012, document GN-2710-5), namely: (i) promoting access to infrastructure services; (ii) fostering innovative mechanisms for financing infrastructure and leveraging private sector participation; and (iii) supporting the construction and maintenance of a socially and environmentally sustainable infrastructure that helps improve the quality of life.
- 1.9 The program is consistent with the objective of the Bank's Public Utilities Policy (Operational Policy OP-708; document GN-2716-6) of promoting access to the electricity service by the entire population, while creating suitable conditions for private sector participation to be a viable option for delivery of public utilities. It satisfies the financial sustainability and economic evaluation conditions defined in this policy, as analyzed in [optional electronic link 3](#), by applying eligibility criteria, proven methodologies of economic evaluation (paragraph 3.5), and the favorable socioeconomic assessment for each project by the MEM, as required by the LGE. The low return on investment in rural electrification justifies government intervention to make private participation viable by subsidizing investment in electrification projects that have been identified and prioritized using technical criteria and transparency principles (paragraph 1.20). These subsidies are intended to expand access and improve the quality of services, targeting the poorest population groups living in rural areas. The program supplements revenues from

the rates charged for supplying the service to the user, with direct contributions from the government made through the social rate (*Tarifa Social*) (paragraph 2.5).

- 1.10 **Evaluation of Phase I (GU-L1018) and verification of the fulfillment of targets and indicators for Phase II.** Table I-1 summarizes fulfillment of the conditions for phase II to be considered, as verified by an independent consultant ([optional electronic link 2](#)), and gives details of the status of each condition as of 30 June 2014 (paragraph 0):

**Table I-1. Summary of the Fulfillment of Phase I Targets and Indicators as of 30 June 2014**

Conditions	Values	Attained as of June 2014		Notes
			%	
(i) At least 75% of the financing has been committed; and 50% of the financing disbursed.	US\$55,000,000	US\$50,926,184	92.6%	Fulfilled
	US\$55,000,000	US\$34,286,986	62.3%	Fulfilled
(ii) A mechanism to provide incentives for the development of sustainable isolated systems has been established and is in effect and functioning.	1	Mechanisms in effect and tested (Regulation 56)	100%	Fulfilled
(iii) 50% of the grid and off-grid connections have been completed.	34,424 connections*/	24,082 connections	70%	Fulfilled
(iv) The rate of advance of the associated transmission works is 50% (estimated in terms of works amount).	US\$23,600,000	US\$12,924,336	58.3%	Fulfilled

\*/The target was adjusted from 34,151 users to 34,424.

- 1.11 **Condition (i): At least 75% of the financing for phase I has been committed and 50% disbursed.** As of 30 June 2014, 92.6% of the total financing had been committed, and 62.3% had been disbursed, as shown in Table I-2. Of the undisbursed balance of US\$20.7 million, US\$16.6 million (or 80.3%) has been committed.

**Table I-2 –Financial Execution as of June 2014 - Phase I**

Component	Approved US\$	Committed US\$	Disbursed US\$	% Committed	% Disbursed
1. Grid connection projects	50,300,000	50,300,000	33,922,076	100%	67.4%
1.1 Grid electrification projects	41,073,301	41,073,301	25,868,705	100%	63%
1.2 Transmission. Design and construction of substations	9,226,699	9,226,699	8,053,371	100%	87.3%
2. Off-grid projects	4,400,000	454,142	248,838	10.3%	5.7%
3. Supervision, audit, and administration	300,000	172,042	116,072	57.4%	38.7%
<b>Total</b>	<b>55,000,000</b>	<b>50,926,184</b>	<b>34,286,986</b>	<b>92.6%</b>	<b>62.3%</b>

- 1.12 Component 2, involving off-grid systems, shows a level of financial execution of 5.7%, due to delays in defining the incentives mechanism for these systems.

Nonetheless, in August 2014, INDE launched a bidding process for the contracting and implementation of 3,000 household photovoltaic systems, together with technical assistance which will benefit 3,000 families in the country's most remote zones. These systems are expected to be in place by April 2015.

- 1.13 **Condition (ii): A mechanism to provide incentives for the development of sustainable isolated systems has been established and is in effect and functioning.** During execution of phase I of the program, the execution arrangement was altered to allow INDE to tender and contract for works and goods, and then transfer them to the community for their operation and maintenance. In this case, the subsidy is delivered in kind to the community, instead of the initial arrangement of paying a subsidy to a third party to build, operate, and maintain the system. On 27 December 2013, Regulation 56 was issued, governing this mechanism. As of 30 July 2014, two pilot projects for isolated systems have been satisfactorily implemented, making it possible to apply the mechanism of Regulation 56. One of these involved the implementation of individual photovoltaic panels, and the other the construction of distribution grids for the mini hydroelectric plant of the Ashdinqui Community Association. The implementation of these projects showed that, with greater dissemination and community participation, it is possible to overcome initial opposition and convince users to pay for the service. Based on the results of these projects, larger-scale interventions are now going ahead, as described in paragraph 0.
- 1.14 **Condition (iii): 50% of the grid and off-grid connections planned for phase I of the program have been completed.** Phase I set an overall target of 34,424 users. As shown in Table I-3, the number of beneficiaries from phase I stood at 24,082 as of 30 June 2014, representing 70% of the overall target, i.e. above the required 50%.

**Table I-3. Number of Phase I Connections as of 30 June 2014**

Category	Users planned	Users connected	Connected/planned
1. Grid connection projects	31,090	23,748	76.4%
2. Off-grid system projects	3,334	334	10.0%
<b>Total</b>	<b>34,424</b>	<b>24,082</b>	<b>70.0%</b>

- 1.15 **Condition (iv): The rate of advance of the associated transmission works is 50%.** The associated transmission works that have been completed include 70.5 km of transmission lines and six substations built. In terms of physical progress, 40.3% of the grid kilometers and 98.5% of the substations were achieved, representing a weighted rate of physical progress of 63.1% as shown in Table I-4. Of the projected total program amount of US\$23.6 million, 58.3% (US\$13.8 million) has been invested, thereby exceeding the 50% rate of financial advance required for these works.

- 1.16 The design tasks for the 175 km of transmission lines and construction of six substations were 100% completed; 70.5 km of transmission lines, out of a total of 175 km, suffered delays associated with the administration of rights of way, due to opposition from a number of communities in the Quiché department. Nonetheless, INDE is in the final stages of negotiating those rights with support from local authorities; and the works are expected to be completed before April 2015.

**Table I-4. Execution of Phase I transmission works as of 30 June 2014**

Component	Units	Projected	Executed	% Execution
Transmission works – financial execution				
Lines	US\$	14,373,301	5,708,214	39.7%
Design of substations	US\$	383,423	383,423	100%
Construction of substations	US\$	8,843,276	7,669,949	86.7%
Total	US\$	23,600,000	13,761,586	58.3%
Transmission works – physical execution				
Lines	km	175	70.5	40.3%
Design of substations	Number of substations	6	6	100%
Construction of substations	Number of substations	6	5.9	98.5%
<b>Total</b>	<b>Weighted %</b>			<b>63.1%</b>

- 1.17 **Conclusions and recommendations.** As the conditions for proceeding to phase II have been met and the Guatemalan government has asked the Bank to move ahead with the second phase of the program, phase II processing is recommended, to maintain momentum toward achieving the objectives of the PER.
- 1.18 **Lessons learned.** The Phase I evaluation identified the following main lessons, which have been taken into account in the design of Phase II (paragraph 2.10):
- a. The use of the Trust Fund mechanism, as a transparent and independent way of managing resources, has proven an effective and flexible implementation solution, by offering transparency in the accounting management of the loan proceeds, and the opportunity for an independent third party to verify fulfillment of the eligibility criteria.
  - b. INDE’s institutional, technical, and administrative capacities for implementing off-grid projects need to be strengthened.
  - c. To avoid delays in the works caused by community opposition, it is important for INDE to systematically monitor the evolution of the communities involved in the projects, taking account of the political and social factors that affect the development of PMER works.

- d. Coordination between the INDE areas involved in executing the program, the program executing unit (PEU), and the distributors DEOCSA and DEORSA, needs further strengthening.
- e. Supervision of the environmental and social aspects of the projects needs further strengthening to make sure they abide by the environmental impact studies, environmental management plans, and the socioeconomic studies undertaken in the communities, as specified in the Environmental and Social Management Report (ESMR).

**B. Objectives, components, and cost**

- 1.19 The program's general objective is to improve and expand coverage of the electricity service, thereby creating conditions for lower-income population groups to improve their quality of life and raise their productivity and income levels. The specific objective is to finance incentives or contributions provided by the government to promote rural electrification and the strengthening of sector management capacities. The following components are envisaged:
- 1.20 **Component 1. Rural electrification through connection to the power grid (US\$40 million).** Government incentives will be financed to support rural electrification projects involving connection to the power grid. The incentives cover the construction costs of the distribution and power grid connection projects for new users in rural communities, including additional transformation capacity. The investment costs per user connected were calculated on the basis of PMER figures. The communities to be included in phase II will be selected on the basis of the projects identified in the PMER approved by INDE, according to the criteria specified below. Account will be taken of the departments and municipios with the lowest rates of electricity coverage, which are located relatively close to existing distribution grids but are not financially viable without an investment subsidy. These projects need the socioeconomic study required by the LGE (Article 47), for the government to be able to grant the subsidy for rural electrification works. As this involves the PMER, the projects already have technical feasibility for their execution and operation. On a preliminary basis, 35 grid extension projects identified in the PMER have been chosen, forming a reference list of projects. INDE will review and update the reference list with the distributors DEORSA and DEOCSA. Each update of the annual work plan (AWP) will present and justify any changes to the list, and will review the transmission needs associated with the selected grid extension projects. The initial reference list for phase II covers 26,549 beneficiaries in the departments of: (i) Alta Verapaz (19 projects with 16,309 users); (ii) Petén (four projects with 2,865 users); (iii) Baja Verapaz (two projects with 659 users); and (iv) Quiché (10 projects with 6,716 users).
- 1.21 **Component 2. Electrification with isolated systems (US\$13 million).** Funding will be provided for nonreimbursable cash and nonmonetary incentives to invest in the design, construction, and implementation of projects based on technologies that use available and viable renewable energy sources, particularly micro and small-

scale hydroelectric plants and photovoltaic solar energy aimed at sustainable energy supply and expanded coverage of sustainable electricity services in remote communities. A preliminary sample of 124 off-grid projects has been identified, which would connect an estimated 7,897 users in the departments of Alta Verapaz (2,758 users), Baja Verapaz (833) and Petén (4,306). Nonetheless, the projects to be financed will have to be presented by the communities for evaluation by INDE, and may be different than those initially selected. The incentives will cover the amount needed to make it viable to construct generation and distribution projects in isolated rural communities. The investment costs per user connected were calculated using PMER figures. The specific communities to be included in phase II were selected on the basis of the projects identified in the PMER approved by INDE and the applications submitted by the communities. The technical and economic viability of each specific project will be evaluated, and each will have a management plan to ensure its sustainability (paragraph 3.5).

- 1.22 **Component 3. Information strategy, training plan, and support for program management (US\$2 million).** Funding will be provided for consulting services to: (i) develop a nationwide program to raise awareness of the benefits of electricity; set up community social management mechanisms, targeting rural areas; disseminate the benefits and targets of the PMER-phase II, through programs in the media, workshops for community leaders, and meetings with the communities; and execute the environmental and social management plan (ESMP); (ii) identify training needs and prepare the INDE training plan on community management, internal and external environmental and social management, and technical considerations associated with rural electrification; (iii) provide training for INDE staff and/or hire consultants for proper program execution; (iv) support the PEU and cover part of the fiduciary costs associated with expanding the PER Trust Fund; (v) hire an audit firm to perform the program’s annual external audit, pursuant to the Bank’s policies; and (vi) perform the program’s midterm and final evaluations.
- 1.23 **Cost and financing.** The cost of phase II of the program is estimated at US\$55 million, which will be financed by the Bank (Table I-2).

**Table I-2. Cost and Financing (US\$ thousand)**

<b>Component</b> <sup>*/</sup>		<b>Total IDB</b>
<b>1</b>	<b>Grid connection projects</b>	<b>40,000</b>
<b>2</b>	<b>Isolated system projects</b>	<b>13,000</b>
<b>3</b>	<b>Information strategy, training, and management support</b>	<b>2,000</b>
3.1	Awareness raising strategy and social/environmental management	700
3.2	Training plan and planning tools	200
3.3	Support for the execution unit	1,000
3.4	Audits and evaluations	100
<b>Total</b>		<b>55,000</b>

<sup>\*/</sup>The financial costs will be borne by the borrower.

**C. Expected outcomes**

1.24 Phase II of the program is expected to help the country raise its electrification coverage rate to roughly 92.9% in 2019, through investments in grid connections and the installation of isolated systems using renewable energy sources, which will make it possible to connect 6.6% of the population identified in the PMER as lacking electric power access. The aim is to provide power to 34,446 households, of which 26,549 would be connected to the grid and 7,897 to isolated systems. As a result, it is expected to directly benefit 172,230 people in poor rural zones, assuming an average of five inhabitants per rural household, mostly belonging to Xinca and Mayan peoples (mainly K'iché, Poqomchí, Achi, Q'eqchí, Itzá, Ixil, Uspanteko). It is expected that the households will attain an average electricity consumption level of 30 kWh/month; by the end of the program, based on measurements to be made with its final evaluation, there will be an installed capacity of solar panels of 361.4 kW; and the communities will improve their understanding of the benefits of the PMER and become more receptive to it. The indicators and their projected values are set out in detail in the Results Matrix.

**II. FINANCING STRUCTURE AND RISKS**

**A. Financing structure**

2.1 The program will be executed as phase II under the multiple phase program modality, for up to US\$55 million, with execution spread over five years starting in 2015, according to the following tentative disbursement schedule:

**Table II-1. Tentative Disbursement Schedule (US\$ thousand)**

<b>Category</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>Total</b>
Grid connection projects	4,000	10,000	12,000	10,000	4,000	40,000
Isolated system projects	1,300	3,250	3,900	3,250	1,300	13,000
Information strategy, training, and management support	306	494	494	494	213	2,000
<b>Total Phase II</b>	<b>5,606</b>	<b>13,744</b>	<b>16,394</b>	<b>13,744</b>	<b>5,512</b>	<b>55,000</b>

**B. Technical and economic viability and sustainability**

2.2 **Technical viability.** The works to be financed will be selected using the technical criteria defined in the National Electric Power Commission (CNEE) and INDE regulations. The selected grid projects are technically feasible in terms of their execution and operation, without affecting the technical conditions defined for the supply of electricity in the national interconnected system.

2.3 **Economic viability.** A cost-benefit analysis ([optional electronic link 1](#)) was performed on the planned grid extension investments, and on one isolated system project considered representative of the type of projects expected to be presented for INDE evaluation by the communities and associations in the zones receiving



electrification. Benefits were quantified in terms of: (i) electricity consumption by the new users connected to the grid and the operation and maintenance fee that would be paid by the users of isolated systems; (ii) the savings or resources freed up by new users consuming electricity instead of other energy sources, such as candles, batteries, or kerosene. For the grid extension projects, the base case reports an economic internal rate of return (EIRR) of 16.3%, and the economic net present value (ENPV) per household connected to electric power, discounted at 12%, amounts to US\$444. The ENPV of the sum of the 35 proposed grid connection projects is US\$11.8 million. The isolated system model project reports an EIRR of 12.7%, and the ENPV per household with electric power, discounted at 12%, is US\$46. The total ENPV of the model project is US\$200,000, such that the ENPV of the sum of the 124 isolated system projects mentioned in the description of Component II (paragraph 1.21) can be estimated at US\$2.6 million. In the case of these isolated systems, no economic evaluation was made of a preliminary list of projects, because the selection and prioritization mechanism requires ex ante evaluation methodologies, to be done once the projects to be evaluated have been determined.

- 2.4 A sensitivity analysis performed on the grid extension projects shows that the program's economic viability is robust to substantial changes in key variables in the analysis. If the grid investment and connection costs per user increase by 10%, and the average electricity consumption per user decreases by 10%, the EIRR falls from the base case of 16.3% to 14.2%. The average ENPV per household connected to electric power falls from US\$444 in the base case to US\$267. The ENPV of the sum of the 35 proposed projects drops from US\$11.8 million to US\$7 million.
- 2.5 **Financial sustainability.** Financial sustainability will be achieved by direct government contributions complementing revenues obtained from the rates charged for the sale of the service to the user. These contributions will be made through the subsidy for investment in electrification projects. In addition, the government subsidizes all users connected to the grid whose consumption is below 300 kWh per month, through the social rate mandated by law. In these cases, in order to ensure sustainability, the government pays the operator the complementary portion of the equilibrium rate which would make the projects financially sustainable. The social rate is targeted progressively according to the consumption level, thereby benefiting the poorest users.

### C. Environmental and social risks

- 2.6 During program preparation, a socioenvironmental audit was performed on phase I to identify its socioenvironmental impacts, liabilities, and mitigation measures; and an analysis was made of the socioenvironmental impacts and risks of phase II. Drawing on the revision and update of the environmental and social management framework and the two aforementioned socioenvironmental assessments, the program's ESMR was prepared ([required electronic link 4](#)). During the audit, a number of environmental liabilities documented in the ESMR were identified. The ESMP contains a plan of action to correct the shortcomings of phase I, and to

mitigate and offset the impacts of the new operation. INDE requires greater institutional strengthening for the socioenvironmental monitoring and supervision of the operations. For that purpose, the team will be strengthened with an environmental specialist and a social specialist. INDE will be responsible for fulfilling the ESMP in the agreed-upon timeframes, and for allocating the appropriate budget. The ESMP may be altered during program execution, based on information obtained from inspection and monitoring activities. A special execution condition will require INDE to fulfill the environmental and social obligations defined in detail in the phase II ESMR and implement the actions identified in the action plan to remedy the socioenvironmental liabilities identified in phase I.

- 2.7 The proposed program will produce significant positive environmental and social impacts by improving the living conditions of low-income population groups and raising the productivity of rural communities—particularly indigenous peoples and women—by providing reliable lighting which facilitates education, improving the availability of health and education services, and promoting the use of energy for productive activities. The program will enable beneficiaries to make better use of energy, and it will promote renewable energy sources and reduce the pressure on forest areas by human activities. The works to be financed will involve the extension of distribution grids and electrification activities in off-grid zones, based on renewable energy sources. In relation to the Bank’s Environment and Safeguards Compliance Policy (Operational Policy OP-703), the program has been classified as a category “B” operation.

#### **D. Fiduciary risks**

- 2.8 Annex III, Fiduciary Agreements and Requirements, describes the risks identified, their potential impact, and the mitigating actions foreseen to make them less likely to occur, based on INDE’s experience in execution of phase I. The main fiduciary risks relate to goods and services procurement. This requires continuous training for the PEU and continuous monitoring of bidding processes by the Bank, as well as the application of Bank policies whenever INDE contracts works construction or procures goods and related services, or contracts consulting services. In the case of disbursements to finance the subsidies, there are no procurement processes, so the Bank’s procurement policies will not apply.
- 2.9 No financial management risks have been identified. If the recommendations made in the fiduciary agreements and requirements are applied to the program’s financial management, the level of risk is low. This means executing the investments following the procedures defined for phase I: (i) keeping the PEU integrated in the INDE general management structure; and (ii) maintaining the Trust Fund, which will be altered to make it applicable to phase II through the respective amendatory instrument. The proposal for amending the PER Trust Fund contract was prepared ([optional electronic link 4](#)). As special execution conditions, INDE will fulfill the requirements and actions on financial management of the program specified in the report on fiduciary agreements and requirements. In addition, the contract for the expansion and amendment of the management Trust Fund “INDE rural works of

the west and east” entered into by INDE, DEORSA, DEOCSA, and Banco Agromercantil de Guatemala, will have been signed and placed in effect under the terms agreed upon by the Bank, upon prior presentation to the Bank the initial works plan including the works and connections corresponding to program component 1. The expansion of the contract involves an increase in the resources to be managed under this Trust Fund, and an extension of the term of the Trust Fund contract.

#### **E. Other risks**

- 2.10 Based on the lessons learned in phase I and application of the project risk management (PRM) tool, the following risks and mitigating measures relating to component 3 were identified: (i) delay in the distribution works due to social conflicts, and objections raised by the communities and local authorities involved, which will be mitigated through appropriate participatory planning and project preparation using community management tools, the implementation of mechanisms for consultation and the lodging of grievances, and coordination with interagency work groups; and (ii) slowness in execution decisions due to coordination failures between the MINFIN, the MEM, and the Guatemalan Congress, in light of the change of government set to occur in September 2015. This risk would be mitigated by providing adequate information to the new authorities on the program and the level of empowerment of the beneficiaries.

### **III. IMPLEMENTATION AND PLAN OF ACTION**

#### **A. Implementation arrangements**

- 3.1 **Borrower and executing agency.** The borrower will be the Republic of Guatemala, with INDE serving as executing agency. MINFIN and INDE will sign an execution agreement indicating: (i) that MINFIN will transfer funding to INDE; (ii) INDE’s commitment to execute program activities in accordance with the loan contract; and (iii) the commitment to use the loan proceeds exclusively for the purposes of the program. **A special contractual condition precedent to the first disbursement will require the subsidiary agreement between the borrower, represented by MINFIN, and INDE for the transfer of resources and project execution obligations, to have entered into effect.**
- 3.2 INDE will appoint at least the following staff, which will fulfill requirements and have qualifications acceptable to the Bank: a coordinator, a financial specialist, a procurement specialist, a social specialist, and an environmental specialist. A special execution condition will require INDE to keep the program execution unit within the INDE general management structure at all times throughout program execution.
- 3.3 The PEU will, at a minimum, have the following program responsibilities: (i) make arrangements internally and with the Bank, by coordinating the activities of the different participating INDE departments, and with the corresponding mechanism

- for executing the isolated systems component; (ii) undertake processes for the selection and contracting of consulting firms, audits, and other technical assistance required, in accordance with Bank procedures; (iii) maintain the program's financial records; (iv) prepare and present the semiannual reports required by the Bank; and (v) compile, store, and keep with it all information, indicators, and parameters needed to prepare the midterm and final evaluations, the project completion report, and any other program evaluation that may prove necessary.
- 3.4 **Execution cycle of grid connection investments.** Investments to connect users to the power grid will be undertaken following the procedures defined in the Trust Fund contract. Each year, the distributors and INDE agree upon the works plan, which has supporting documentation and is approved by the Trust Fund Technical Committee (CTF). This plan will be presented to the Bank as part of the AWP, for no objection prior to presentation to the CTF. Once approved by the CTF and INDE, the Trust Fund will pay 20% of the total plan. Once the delivery of the distribution works has been verified and certified, the CTF will authorize payment of the remaining 80%. At the request of INDE, the Bank will reimburse 100% of payments made by the Trust Fund, per user connected, pursuant to the regulations governing IDB disbursements. The activity of verification and certification undertaken by the CTF, will include, for each disbursement request, the certification issued by the independent supervisor, supported by the CTF and verified by the GERO for the distribution works.
- 3.5 **Execution cycle of isolated system projects.** In the case of cash incentives, where a third-party is involved in the construction, operation, maintenance of the renewable energy system, the cost per user connected will be considered an eligible expense. In the case of non-cash incentives, INDE transfers the renewable energy system to the community, represented by a legal entity or a Community Development Council (COCODE), which takes on the operation and maintenance obligations. In this case, the cost of contracting the work or purchasing the assets involved is considered an eligible expense. The following projects will be considered eligible: (i) those that stem from a request by the interested community; (ii) those that undergo a process of technical, economic, and financial evaluation supervised by INDE; (iii) those for which the amount of the incentives defined for the initial investment results from a competitive process between candidates to operate the systems, or otherwise, at the discretion of INDE, from negotiations with organized groups in the requesting community; (iv) those that have mechanisms in place to ensure that service supply is sustainable throughout its useful life, either through contracts signed with the selected operator in the case of third-party construction, or through sustainability plans agreed upon with the community association or the COCODE, which receives the work, in cases where INDE contracts works execution; and (v) those that fulfill the program's environmental and social requirements. A special execution condition for component 2 will require the issuance of an amended regulation providing details of the execution of component 2 under the terms agreed with the Bank, upon prior presentation of the initial works plan for this component for the Bank's approval.

3.6 **Procurement management.** The bulk of the financing will be used to pay the incentives or nonreimbursable contributions from the government for the development of rural electrification, both for grid connection and in isolated systems. These are set in advance and will be recognized once the connection of the users to the electric power system has been certified. Where the payment of an incentive or nonreimbursable contribution is recognized, the Bank's procurement procedures will not apply. As a special execution condition, each rural electrification project on the grid or in isolated systems for which the government pays a subsidy must be shown in the works plan, which previously has received the Bank's no objection in order to be eligible for financing. In cases where the procurement of works, goods, and consulting services are financed in whole or in part from the loan proceeds, the Policies for the procurement of works and goods financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the selection and contracting of consultants financed by the Inter-American Development Bank (document GN-2350-9) will apply. Procurement processes will be subject to ex post review, as indicated in Annex III; they must also be included in the procurement plan approved by the Bank and follow the methods and respect the ranges established therein. A procurement plan will be agreed upon for the first 18 months of execution, and will be monitored, implemented, and updated using the tools agreed upon with the Bank.

3.7 **Financial management.** INDE, acting through the PEU, will be responsible for the program's financial management, and will submit audited financial statements within 120 days following the end of each fiscal year, or the date of the last disbursement. The executing agency will hire an external audit firm acceptable to the Bank, based on terms of reference previously approved by the Bank. Disbursements will be made on the basis of recognition of expenses and advances of funds, as required by the financial plan, pursuant to the policy set forth in document OP-273-2.

#### **B. Summary of monitoring and evaluation arrangements**

3.8 The program has a monitoring and evaluation plan (MEP). Administrative monitoring and control will focus on the fulfillment of procedural regulations governing administrative, financial, accounting, and legal matters, in accordance with national guidelines, those of the Bank, and those specified in the Trust Fund contract and the loan contract.

3.9 The MEP includes the program's economic, social, and environmental indicators. INDE will send the Bank a progress report no later than 60 days after the end of each six-month period. These reports will indicate the degree of fulfillment of the output indicators and progress toward the outcomes of the Results Matrix; and they will make it possible to monitor these indicators using the Bank's Project Monitoring Report (PMR) tool. The problems encountered and corrective measures will be identified. No later than 30 November each year, INDE will present the AWP to the Bank, along with the procurement plan and cash flow programming for the following year. External financial audits will be performed.

- 3.10 The MEP includes program evaluation mechanisms. INDE will select and contract consulting services to undertake: (i) a midterm evaluation once 50% of the financing has been disbursed and justified, or after 22 months of execution, whichever occurs first. This evaluation will focus on analyzing progress achieved, aspects of coordination and execution, and recommendations to attain the proposed targets and investment sustainability; and (ii) a final evaluation, no later than 90 days before the date of the last disbursement, for which the final report must be presented no later than 30 days after the final disbursement justification. This will include: the degree of fulfillment of the targets specified in the Results Matrix, the ex post cost-benefit analysis, the performance of the executing agency, factors affecting implementation, and recommendations for the design of future operations.

Development Effectiveness Matrix			
Summary			
<i>i. Strategic Alignment</i>			
<b>1. IDB Strategic Development Objectives</b>		Aligned	
Lending Program	(i) Lending to small and vulnerable countries; (ii) Lending for poverty reduction and equity enhancement; and (iii) Lending to support climate change initiatives, renewable energy and the environment.		
Regional Development Goals	(i) Extreme poverty rate; (ii) Percent of households with electricity; and (iii) CO2 emissions (kilograms) per \$1 GDP (PPP).		
Bank Output Contribution (as defined in Results Framework of IDB-9)	(i) Km of electricity transmission and distribution lines installed or upgraded, (ii) Percentage of power generation capacity from low-carbon sources over total generation capacity funded by IDB, and (iii) Climate change pilot projects in energy.		
<b>2. Country Strategy Development Objectives</b>		Aligned	
Country Strategy Results Matrix	GN-2689	(i) Create opportunities to improve incomes from productive activities for the rural population, and (ii) Diversify sources of income of rural households.	
Country Program Results Matrix	GN-2756-2	The intervention is included in the 2014 Operational Program.	
Relevance of this project to country development challenges (if not aligned to country strategy or country program)			
<i>ii. Development Outcomes - Evaluability</i>			
	Evaluable	Weight	Maximum Score
	8.8		10
<b>3. Evidence-based Assessment &amp; Solution</b>	9.4	33.33%	10
3.1 Program Diagnosis	2.4		
3.2 Proposed Interventions or Solutions	4.0		
3.3 Results Matrix Quality	3.0		
<b>4. Ex ante Economic Analysis</b>	10.0	33.33%	10
4.1 The program has an ERR/NPV, a Cost-Effectiveness Analysis or a General Economic Analysis	4.0		
4.2 Identified and Quantified Benefits	1.5		
4.3 Identified and Quantified Costs	1.5		
4.4 Reasonable Assumptions	1.5		
4.5 Sensitivity Analysis	1.5		
<b>5. Monitoring and Evaluation</b>	7.1	33.33%	10
5.1 Monitoring Mechanisms	2.5		
5.2 Evaluation Plan	4.6		
<i>iii. Risks &amp; Mitigation Monitoring Matrix</i>			
Overall risks rate = magnitude of risks*likelihood	Low		
Identified risks have been rated for magnitude and likelihood	Yes		
Mitigation measures have been identified for major risks	Yes		
Mitigation measures have indicators for tracking their implementation	Yes		
Environmental & social risk classification	B		
<i>iv. IDB's Role - Additionality</i>			
<b>The project relies on the use of country systems</b>			
Fiduciary (VPC/PDP Criteria)	Yes	Financial Management: (i) Budget, (ii) Treasury, and (iii) External Control. Procurement: Information System.	
Non-Fiduciary	Yes	(i) Strategic Planning National System (Use of some sectorial or sub-sectorial national system), (ii) Statistics National System, and (iv) Environmental Assessment National System.	
<b>The IDB's involvement promotes improvements of the intended beneficiaries and/or public sector entity in the following dimensions:</b>			
Gender Equality			
Labor			
Environment			
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project	Yes	The Bank provided support to the executing agency during the first stage of the program (GU-L1018) in order to strengthen its administrative and technical management capacities. The second subcomponent of technical support for the development and implementation of isolated systems (US\$2.4 million on the first phase), finances studies and technical assistance activities required to develop the isolated systems of rural electrification in a sustainable way.	
The ex-post impact evaluation of the project will produce evidence to close knowledge gaps in the sector that were identified in the project document and/or in the evaluation plan			

The overall objective of the program is to improve and expand the coverage of the electric service, creating the conditions that help the population with the lowest economic resources to improve their quality of life, productivity and income. The specific objective is to fund those incentives or contributions that the government provides in order to promote rural electrification and the strengthening of the sectorial operational capacity.

The results matrix presents SMART product and outcome indicators that are associated with the objectives and components of the program. The monitoring and evaluation plan is based on an ex-post economic analysis and a before-and-after comparison of indicators. More empirical evidence about the impact of similar interventions should be included in the evaluation plan in order to use the multiple references included in this document.

The risks currently identified in the risk matrix are reasonable and they include mitigation measures and related metrics to track their implementation.

### RESULTS FRAMEWORK / INDICATORS MATRIX

<b>Objective</b>	The program's general objective is to improve and expand coverage of the electricity service, thereby creating conditions for lower-income population groups to improve their quality of life and raise their productivity and income levels. The specific objective is to finance incentives or contributions provided by the government to promote rural electrification and the strengthening of sector management capacities.				
Impact indicator	Unit of measurement	Baseline (2013)	Target (2019)	Source of verification	Comments
<b>National electricity coverage rate</b>	% of total homes with the service	89.5%	92.4%	Statistics from the Ministry of Energy and Mines (MEM)	Guatemala's energy policy target is to achieve 95% coverage in 2027.
<b>Electricity coverage rate in departments benefited by the program</b> i. Alta Verapaz ii. Petén iii. Baja Verapaz iv. Quiché	% of total homes with the service	43.5% 63.4% 77.5% 83.5%	62.4% 72.1% 83.9% 89.8%	MEM statistics	The program targets the four departments with the lowest electricity coverage rates in the country.

Outcome indicator	Unit of measurement	Baseline (2013)	Target (2019)	Source of verification	Comments
<b>Component 1:</b> Average electricity consumption in the program's grid systems	kWh/month	0	30	Distributors' information systems in the years 2017 and 2019.	Measurement to be made for the midterm and final evaluations. The target is the same for both.
<b>Component 2:</b> In-service capacity of solar panels installed in the program (sustainability)	kW	0	361.4	Information to be collected by INDE with the organizations in 2019.	Measurement to be made for the final evaluation.
<b>Component 3:</b> Program beneficiary communities with a favorable opinion of and receptive to the Rural Electrification Master Plan (PMER)	%	N/A	80	Project monitoring report (PMR); surveys conducted in information dissemination events.	Measurement to be made for the final evaluation using the methodology described in the Monitoring and Evaluation Plan (MEP).



### RESULTS MATRIX / INDICATORS MATRIX

Output indicators	Unit of measurement	Baseline		Intermediate measurements					Final target		Source / Means of verification
		Value	Year	1	2	3	4	5	Value	Year	
<b>Component I - Rural electrification through connection to the power grid</b>											
New users connected to the electricity service in on-grid projects	Number of homes	0	2014	2,655	6,637	7,965	6,637	2,655	26,549	2019	PMR
<b>Component II - Electrification with isolated systems</b>											
New users connected to the electricity service in isolated system projects	Number of homes	0	2014	790	1,974	2,369	1,974	790	7,897	2019	PMR
<b>Component III - Information strategy, training plan, and support for program management</b>											
INDE staff trained in community management, and in environmental and internal and external social management	Number of persons	0	2014		5	5			10	2019	PMR
Training plan on community management and environmental and social management	Number of plans finalized	0	2014		1				1	2019	PMR
Awareness-raising plan targeting potential users	Number of plans finalized	0	2014	1	-				1	2019	PMR
Mechanisms for presenting grievances and complaints for potential users	Mechanisms created and operating	0	2014		1				1	2019	PMR
Information dissemination and consultation events at the community level (dialogue and consensus building roundtables, multi-actor workshop, promotion and demonstration at the community level)	Number of events	0	2014	2	2	1	1		6	2019	PMR

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

**Country:** Guatemala  
**Project number:** GU-L1084  
**Name:** Multiphase Rural Electrification Program Phase II  
**Executing agency:** National Electrification Institute (INDE)  
**Prepared by:** María Cecilia Del Puerto (Procurement Specialist) and  
José Villatoro, (Financial Specialist)

### I. EXECUTIVE SUMMARY

- 1.1 The program includes a US\$55.0 million loan operation to be executed by the National Electrification Institute (INDE), which has proven experience having previously served as executing agency in other IDB loan operations in Guatemala.
- 1.2 The program's chart of accounts and its fiduciary management will be organized and executed pursuant to the rules of the Integrated Financial Management System (SIAF). Under an agreement reached between the Bank and the Public Credit Department (DCP), this system can feasibly be used as an operational management tool in the budget, treasury, accounting, and reporting subsystems, but not for internal control.
- 1.3 According to Articles 53 bis and 73 of the Organic Budget Law and Article 21 of its Regulations, all external financing operations, whether reimbursable or not, must be associated with an existing institutional program in the executing agency; and this must also be part of, or consistent with, the current Institutional Strategic Plan. In fulfillment of this mandate of national legislation, the loan in question will be linked to the Rural Electrification Program, which, for fiscal year 2014 is identified by the number 14. Under this program, three activities will be financed as loan components, namely: (a) power grid connection projects, which will be included within the project to construct low-voltage lines and grids, identified by the number 14.02.001; (b) projects in isolated systems (for which INDE will create the project or activity within program 14, using the number 14.03.001); and (c) information strategy, training and administrative support, which would be included within subprogram 14.01 on administrative and financial management. In each case, and as the program's planning proceeds, INDE will assign the corresponding line items and expenditure group, pursuant to the Budgetary Classification Manual of the Organic Budget Law. The cost table in the initial program report will provide a breakdown according to budgetary classification.
- 1.4 A special account in United States dollars will be opened at the Bank of Guatemala to manage program funds. Disbursements may be processed under two

- modalities: (a) reimbursement of payments made (e.g. in the case of components that use the Trust Fund); and (b) advances of funds. In both cases, all disbursements will be processed on the basis of the actual financial plan for the next six months. In the case of advances of funds, it is recommended that a subsequent disbursement be processed when 50% of the previous one has been accounted for. Reports justifying the use of the funds will be obtained directly from the SIAF's Integrated Accounting System (SICOIN). Documents will be subject to ex post review, which will be included the annual operational and financial audit. The audit firm will be contracted under agreed upon terms of reference.
- 1.5 In accordance with Article 53 Bis of the Organic Budget Law and Article 80 of its Regulations, the program's managers (directors, financial and procurement chiefs, and equivalent staff) will have civil servant status and be contracted under heading 011 or 022 of the Budgetary Classification Manual of the Organic Budget Law. Members of the Program Executing Unit (PEU) will be appointed and paid by INDE. It is recommended that the Bank have the power to express its no objection to the profile and experience of the staff to be appointed for the PEU.
- 1.6 The evaluation made of Guatemala's procurement system, using the methodology of the Organization for Economic Cooperation and Development/Development Assistance Committee (OECD/DAC), concluded that, in procurement financed by the Bank, the system in question can only be used as a mechanism for advertising the processes, through the corresponding module in the GUATECOMPRAS online public procurement system.

## **II. FIDUCIARY CONTEXT OF THE BORROWER**

- 2.1 Guatemala's Public Finance System (SFP) consists of the SIAF, the Guatemalan Audit System (SAG), and GUATECOMPRAS. On financial management issues, the SIAF-SAG defines the legal, organizational, and technical framework governing public finance management activities in Guatemala. The system contains integrated budget, treasury, and accounting subsystems, but the control subsystem is not part of it. As budgetary, treasury, and accounting management are integrated, the system provides sound, reliable financial information, which gives rise to low levels of financial fiduciary risk. Use of those subsystems to support the execution of IDB-financed operations for the nonfinancial public sector in Guatemala is therefore recommended.
- 2.2 To facilitate the program's financial execution in the SIAF environment, specific design steps are being taken to make it possible to: (a) link the program's components to institutional programs. Subsequently, the project's cost table will be directly related to the SIAF programmatic budget structure; (b) establish that the program's resources will be managed in a special account in United States dollars; (c) when accounting for the disbursements, direct SICOIN reports will be used and reviewed on an ex post basis; (d) the advance of funds and payment reimbursement modalities will be used, supported by a plan of actual financial

needs covering six months. In the case of advances of funds, subsequent disbursements will be processed when 50% of the previous one has been justified; (e) investments will be accumulated in independent years; and (f) the program's managers (directors, financial and procurement chiefs and other equivalent staff) will have civil servant status and be contracted under heading 011 or 022. These actions aim to avoid the continued use of parallel financial management systems. As the control subsystem (SAG) is not integrated with the other subsystems, it is not used in project management, and private audit firms will be hired to audit the program.

- 2.3 Guatemala is a country with high fiduciary risk in procurement. The weakness of local regulations and lack of action by the national authorities to strengthen the fiduciary capacity of government entities, has forced multilateral and bilateral organizations to require their own procedures to be used for procurement. The GUATECOMPRAS online public procurement system is merely a mechanism for disseminating the processes (announcement, documents, and results), and has no transactional phase. The Bank uses the GUATECOMPRAS system exclusively as an advertising medium and accepts compulsory use of the system for that purpose.

### **III. FIDUCIARY RISK EVALUATION AND MITIGATION MEASURES**

- 3.1 As part of the design process, risk was evaluated using the project risk management (PRM) methodology, which gives the program a medium fiduciary risk rating. This mainly reflects procurement issues, given the weakness of Guatemala's regulatory framework for public procurement, its discrepancies with Bank policies, the multiple actors involved, and the complexity of the operations in remote and inaccessible areas. This risk would be mitigated largely by executing the program through a Trust Fund. From the financial management standpoint, no risks have been identified, because the program meets all SIAF rules and applies the recommendations indicated in this annex on fiduciary agreements for the program's financial management, so the risk level is low.

### **IV. CONSIDERATIONS FOR THE SPECIAL CONDITIONS OF THE CONTRACT**

- 4.1 It is recommended that the special conditions of the program include a special execution condition indicating that INDE will fulfill the agreements and requirements defined in detail in this report on phase II fiduciary agreements and requirements, and implement the actions and recommendations contained herein.

### **V. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION**

- 5.1 As an execution mechanism, the program aims to expand the Management Trust Fund in effect for the modified phase I, adjusted to the parameters of the new program (deadline, amount, etc.). This expansion will require special approval

from Congress which will be requested when the loan contract is presented to that body, as required. The individual program components will be implemented through the following mechanisms:

**Component I:** Subsidies through the expansion of the Rural Electrification Program (PER) Trust Fund.

**Component II:** Isolated systems, indistinctly and determined on a case-by-case basis, through the following modalities: subsidies to a third party (firm, NGO, community association, etc.), or contracting by INDE of the works and all they entail (preinvestment, execution, supervision, and delivery to a community association). In the latter case, IDB procurement policies would apply, pursuant to the criteria outlined below in this section.

**Component III:** Contracting to be executed in accordance with the Bank's procurement policies, pursuant to the criteria set out below: (a) all strategy and training issues (consulting services, promotional material, workshops, courses, etc.); (b) support for the PEU (consulting services, equipment, etc.); and (c) audits.

5.2 In the relevant cases, the Bank's procurement policies (documents GN-2349-9 and GN-2350-9) will be applied as follows:

- a. **Procurement of works, goods, and nonconsulting services:** Contracts for works, goods, and nonconsulting services<sup>1</sup> generated under the program and subject to international competitive bidding (ICB) will be executed using the standard bidding documents (SBDs) issued by the Bank. Processes subject to national competitive bidding (NCB) will be executed using country bidding documents agreed upon with the Bank. Technical specifications will be reviewed by the program's sector specialist.
- b. **Selection and contracting of consultants:** Contracts for consulting services generated under the program will be executed using the standard request for proposals (RFP) issued by, or agreed upon with, the Bank. The procurement processes, in particular terms of reference for contracting consulting services, will be reviewed by the program's sector specialist.
- c. **Selection of individual consultants:** Where appropriate, individual consultants will be selected and contracted by drawing up shortlists of qualified candidates.
- d. **Use of the country procurement system:** To date, the Bank has not approved the current procurement system in Guatemala, or any other subsystem for use in Bank procurement processes, except for GUATECOMPRAS as a mechanism for advertising the processes. **Recurring expenses:** The recurring operating and maintenance expenditures needed to implement the project during execution (e.g. property and equipment leases, public utilities and communication, translations, bank charges, office supplies, advertising or announcements,

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<sup>1</sup> Policies for the procurement of goods and works financed by the Inter-American Development Bank (document GN-2349-9) paragraph 1.1: Nonconsulting services are treated as goods.

photocopying, mail, etc.), which are defined as being financed by the program, will be incurred according to the guidelines of the executing agency, and will be reviewed and, as the case may be, accepted by the Bank, provided they do not violate fundamental principles of competition, efficiency, and economy. In addition, operating costs will include the wages of officials appointed as program managers (directors, financial and procurement chiefs, and other equivalent staff), who will be contracted under heading 011 or 022, in accordance with budgetary regulations.

- 5.3 **Threshold amounts applicable to the program.** The threshold amounts recommended for the operation's international advertising are consistent with those defined by the Bank (VPC/FMP) for Guatemala; and, in terms of national advertising, the thresholds set are in line with those defined in operations previously financed for MINFIN.

**Table of threshold amounts (US\$ thousand)**

<b>International advertising (Works)</b>	<b>Shopping (Works)</b>	<b>International advertising (Goods)<sup>2</sup></b>	<b>Shopping (Goods)</b>	<b>International advertising consulting services</b>	<b>Shortlist 100% national</b>	<b>Threshold for ex post review</b>
≥ US\$1,500,00	≤ US\$150,000	≥ US\$150,000	≤ US\$25,000	≥ S\$200,000	≤ US\$200,000	Processes below the international threshold

**Notes**

- 1. All ICBs and NCBs for works and goods and all processes for the selection of consulting firms will be subject to ex ante review by the Bank until the capacity of each executing entity can be evaluated, at which point the review modality may be altered. Processes involving shopping for works and goods, and the selection of individual consultants, may be reviewed on an ex post basis once an ex ante review has been completed on the first process in each case.*
- 2. In works procurement processes for less than US\$150,000 (shopping), special attention is needed to ensure the contract is awarded on the basis of the lowest price bid and no additional criterion.*
- 3. In view of the above, the supervision recommended for the program requires inspection visits to be made to the executing agency every six months for the purpose of ex post reviews of procurement processes. The ex post review reports will include at least one physical inspection visit<sup>3</sup> from among procurement processes subject to ex post review (at least 10% of reviewed contracts must be inspected physically).*

<sup>2</sup> Includes nonconsulting services.

<sup>3</sup> The inspection verifies the procurement's existence, while verification of the quality and fulfillment of specifications is left to the sector specialist.

- 5.4 **Initial procurement plan.** The procurement plan for the first 18 months can be accessed at <http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=38943574>).
- 5.5 **Procurement supervision.** The supervision of procurement processes, procurement plans, and updates thereof, is the responsibility of the Program Team Leader.
- 5.6 **Records and files.** INDE will be responsible for maintaining the program's files and records. Consultants providing support for program procurement will report to INDE to ensure its institutional strengthening in relation to procurement, and for the integrity of the processes. It is recommended that INDE document internal work flows.

## VI. AGREEMENTS AND REQUIREMENTS FOR FINANCIAL EXECUTION

- 6.1 The financial management of the nonfinancial public sector in Guatemala is organized and regulated by the SIAF, which includes budget, accounting, treasury, and public credit systems, operated under a common set of rules and procedures. Its basic premise is regulatory centralization by the Ministry of Finance and operational decentralization, through executing entities, working through legally established financial management units (UDAFs). As the exclusive tool for managing the use of public funds, the SIAF has all the manuals and procedures needed to enable users to adequately fulfill budgetary, accounting, and treasury functions, ensuring reliability in the record-keeping and information system. Given the reliable characteristics of the SIAF, the resources of the GU-L1084 program will be managed under the same SIAF principles and procedures. Consequently, no parallel systems will be used for program management
- 6.2 **Budget management.** Management of the national budget is governed by the Organic Budget Law and its Regulations. Articles 53 and 73 of the Law and Article 21 of its Regulations require any external financing operation, reimbursable or otherwise, to be associated with an existing institutional program in the executing agency, which should also be part of, or consistent with, the current institutional strategic plan. In fulfillment of this national legislative mandate, the loan in question will be linked to the Rural Electrification Program, which, for fiscal year 2014, is identified by the number 14. Within this program, three activities will be financed as loan components, namely: (a) power grid connection projects (which will be included in the project to construct low-voltage lines and grids, identified by the number 14.02.001); (b) projects in isolated systems (for which INDE will create the project or activity within program 14, using the number 14.03.001); and (c) information strategy, training, and administrative support, which would be included within subprogram 14.01 on administrative and financial management. In each case, as the program's planning proceeds, INDE will assign the corresponding headings and expenditure group, pursuant to the Budgetary Classification Manual of the Organic Budget Law. The

- cost table in the initial program report will provide a breakdown according to the budgetary classification. In each year of implementation, the executing unit will prepare the program's budget in accordance with the guidelines of the Organic Budget Law.
- 6.3 **Treasury.** The program's funds will be deposited in a special account to be opened within the single account at the Treasury Department. This will be denominated in United States dollars so as to obtain the SICOIN reports in that currency and avoid exchange rate losses. The executing agency will keep a reconciliation statement of the account continuously up to date.
- 6.4 **Accounting.** The program's accounting records will be processed through SICOIN, which will be the sole source of information on the use of program funds. The executing unit will strictly comply with SICOIN regulations. It will not be necessary to prepare a special chart of accounts for the program, but the Project Coordination Unit (PCU) will create the expense structure within SICOIN. The program will prepare the following reports: monthly reconciliation of funds in the program's single account, analysis of budget execution, itemized periodic payments, annual execution, detail of contracts and their status (consultation), budgetary appropriations assigned, and others. All supporting documentation for payment transactions undertaken with program funds will be kept in the executing unit's files. Considering the soundness of the system, transactions will be supervised at specific control points in the process; monthly reconciliations of the single account will be used as a supervision tool; and there will also be access to consult the system on the status of any contract and any financial movement under the investment categories made as a charge against the program. All transactions will be converted using the exchange rate prevailing on the transaction date, as published by the Bank of Guatemala.
- 6.5 **Control and audit.** The Office of the Comptroller General (CGC) is legally mandated to audit the management of public funds. Nonetheless, given the latter's institutional weakness, the Bank does not accept it as a project auditor. Consequently, the program will contract an external audit firm classified as tier I by the Bank, to perform the program's audit, under terms of reference tailored to the program, which will include an operational financial audit for the program. The final financial report will be presented 120 days following the date of the last disbursement.
- 6.6 **Cash flow.** Program funds will follow a process flow defined by the Ministry of Finance, in the Procedural Manual for the Administration of Monetary Deposit Accounts and other execution modalities financed by multilateral and bilateral investment organizations approved by Ministerial Resolution 59-2007. The Bank will disburse program resources in the form of advances of funds or reimbursements of payments made. The corresponding deposit will be made to the program's subaccount in United States dollars in the Single Treasury Account, based on the financial plan, which is part of the program's execution plan. The advance of funds will be supported by the plan of actual financial needs for the



- next six months, after which subsequent disbursements will be processed when 50% of the previous disbursement has been justified.
- 6.7 **Accountability.** The PEU will make the corresponding payments; and, as the equivalent of 50% of the use of advances received accumulates, and based on future program financing needs as indicated in the financial plan, it will prepare accounts for the Bank. For this purpose, it will only print the daily cash movement from SICOIN and the single account reconciliation, which, together with the disbursement request form, explains the amount of the balance received to be justified. The request is sent to the National Treasury for approval, and then to the Bank for processing. The supporting documentation for each payment will be filed in the PEU office. In all cases, supporting documents must be kept duly filed for a minimum of three years after the end of program disbursements. The executing agency will guarantee access for the program's external auditors and Bank staff performing audits and routine reviews, respectively.
- 6.8 **Disbursement modalities.** Disbursements will be made in the form of advances of funds and reimbursement of payments made. The amount of the advance will be determined by the funding needed by the program to operate during the next six months, according to the program's financial plan. The size of any advance will reflect the amount requested in the financial plan for the following six months and the result of the single account reconciliation. The request will be supported by the reconciliation of the single account and the financial plan. The payment reimbursement modality will apply when the Trust Fund is used as execution instrument.
- 6.9 **Supervision of financial management.** Financial management will be supervised using the ex post review modality, with at least three annual financial supervision visits being scheduled.
- 6.10 **Program managers.** Pursuant to Article 53 bis of the Organic Budget Law and Article 80 of its Regulations, program managers (directors, financial and procurement chiefs, and other equivalent staff) will have civil servant status and be contracted under heading 011 or 022 of the Budgetary Classifications Manual of the Organic Budget Law.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/14

Guatemala. Loan \_\_\_\_/OC-GU to the Republic of Guatemala  
Multiphase Rural Electrification Program – Phase II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Guatemala, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a multiphase rural electrification program – phase II. Such financing will be for the amount of up to US\$49,100,000 from the resources of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ \_\_\_\_\_ 2014)

LEG/SGO/CID/IDBDOCS#39158001  
GU-L1084

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/14

Guatemala. Loan \_\_\_\_/BL-GU to the Republic of Guatemala  
Multiphase Rural Electrification Program – Phase II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Guatemala, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a multiphase rural electrification program – phase II. Such financing will be for the amount of up to US\$4,720,000 from the resources of the Single Currency Facility of the Bank's Ordinary Capital, corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ \_\_\_\_\_ 2014)

LEG/SGO/CID/IDBDOCS#39157998  
GU-L1084

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/14

Guatemala. Loan \_\_\_\_/BL-GU to the Republic of Guatemala  
Multiphase Rural Electrification Program – Phase II

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Guatemala, as Borrower, for the purpose of granting it a financing to cooperate in the execution of a multiphase rural electrification program – phase II. Such financing will be for the amount of up to US\$1,180,000 from the resources of the Bank's Fund for Special Operations, corresponds to a parallel loan within the framework of the multilateral debt relief and concessional finance reform of the Bank, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on \_\_\_\_ \_\_\_\_\_ 2014)

LEG/SGO/CID/IDBDOCS#39158000  
GU-L1084