

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

GUATEMALA

PROGRAM FOR RURAL ELECTRIFICATION INFRASTRUCTURE (PIER)

(GU-L1171)

LOAN PROPOSAL

This document was prepared by the project team consisting of: Alberto Levy, Project Team Leader (ENE/CGU); Odile Johnson, Fabiola Baltodano, and Edwin Mejía (INE/ENE); Julia Miguez and Roberto Leal (VPS/ESG); Maricarmen Esquivel (CSD/CCS); Marcela Hidrovo and Rodrigo Castro (VPC/FMP); Gisele Teixeira and Claudia Aguirre (CID/CGU); Anne-Marie Urban and Hugo Us (SCL/GDI); Pablo Pereira dos Santos (SPD/SPD); Antonio Garcia (IFD/CMF); and María C. Landazuri-Levey (LEG/SGO)

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Proposed resolution

ANNEXES	
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REQUIRED LINKS	
1	Multiyear execution plan / Annual work plan
2	Monitoring and evaluation plan
3	Environmental and social management report
4	Procurement plan

OPTIONAL LINKS	
1	Program economic analysis
2	Analysis of compliance with the Public Utilities Policy
3	First environmental and social analysis / environmental and social management plan
4	Second environmental and social analysis / environmental and social management plan
5	Environmental and social management framework
6	Program Operating Regulations
8	Prioritization criteria for Rural Electrification Infrastructure Program works
9	Consultation report
10	Safeguard Policy Filter and Safeguard Screening Form

ABBREVIATIONS

CNEE	Comisión Nacional de Energía Eléctrica [National Electricity Commission]
EIRR	Economic internal rate of return
ENPV	Economic net present value
ESA	Environmental and social analysis
ESMF	Environmental and social management framework
ESMP	Environmental and social management plan
ESMR	Environmental and social management report
GWh	Gigawatt-hour
ICAP	Institutional Capacity Assessment Platform
ICB	International competitive bidding
INDE	Instituto Nacional de Electrificación [National Electrification Institute]
KIF	Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean
kV	Kilovolt
kWh	Kilowatt-hour
MEM	Ministry of Energy and Mines
MINFIN	Ministry of Public Finance
MW	Megawatt
NCB	National competitive bidding
PEU	Program execution unit
SIAF	Sistema Integrado de Administración Financiera [Integrated Financial Management System]
SICOIN	Sistema de Contabilidad Integrado [Integrated Accounting System]
SNI	Sistema Nacional Interconectado [National Interconnected System]

PROGRAM SUMMARY
GUATEMALA
PROGRAM FOR RURAL ELECTRIFICATION INFRASTRUCTURE (PIER)
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Financial Terms and Conditions						
Borrower:				Flexible Financing Facility ^(a) - OC		KIF
Republic of Guatemala			Amortization period:		18.25 years	25 years
Executing agency:			Disbursement period:		5 years	
National Electrification Institute (INDE)			Grace period:		10.75 years ^(b)	7 years
Source	Amount (US\$)	%	Interest rate:		LIBOR-based	
			Front-end fee:		0.1% ^(c)	
			Credit fee:		(d)	
			Inspection and supervision fee:		(d)	
IDB (Ordinary Capital):	60,000,000	50	Weighted average life:		15.25 years	N/A
IDB (KIF): ^(e)	60,000,000	50	Approval currency:		U.S. dollar	
Total:	120,000,000	100				
Project at a Glance						
Program objective/description: The general objective of this operation is to increase electricity coverage in rural areas in the Republic of Guatemala. The specific objective is to connect more new users in rural areas by building distribution grids.						
Special contractual conditions precedent to the first disbursement of the loan: The conditions precedent to the first disbursement are: (ii) the program Operating Regulations (optional link 6) will have been approved by INDE and will have entered into force under the terms agreed upon with the Bank (paragraph 3.5); (ii) the borrower, acting through the Ministry of Public Finance, and INDE will have signed a subsidiary agreement on program execution and the transfer of funds, establishing the terms under which loan proceeds will be transferred to INDE and stipulating the parties' responsibilities in program execution; (iii) the program execution unit (PEU) will have been created via a resolution from the INDE board of directors, and INDE staff members will have been appointed to serve on the PEU in the following roles: a general coordinator, a financial management specialist with experience in the financial management of projects financed by multilateral organizations, and a procurement specialist, in accordance with the profiles agreed upon with the Bank; The staff members in these roles will be reporting officers for the purposes of the provisions of the Budget Act's regulations and will work on the program full-time; and (iv) INDE will have submitted the terms of reference for the contracting of the environmental specialist and the social specialist who will make up the socioenvironmental team for program execution. See Annex III, Fiduciary Arrangements and Agreements (paragraph 5.1), for additional special contractual conditions precedent to the first disbursement of a fiduciary nature, and Annex B of the environmental and social management report (ESMR) (required link 3) for those of a social or environmental nature.						
Special contractual conditions for execution: Once each work has been completed, INDE and the corresponding electricity distributor will sign an agreement listing the assets transferred and granting the distributor the right to use the works in order to connect users, operate and maintain the works, and establish commercial relationships with connected users, pursuant to the provisions of Article 47 of the Electricity Act (paragraphs 1.17 and 3.6). See also Annex III, Fiduciary Arrangements and Requirements (paragraph 5.2), for special contractual conditions for execution of a fiduciary nature, and Annex B of the ESMR (required link 3) for those of a social or environmental nature.						
Exceptions to Bank policies: None.						
Strategic Alignment						
Challenges: ^(f)		SI	<input type="checkbox"/>	PI	<input checked="" type="checkbox"/>	EI <input type="checkbox"/>
Crosscutting topics: ^(g)		GD	<input type="checkbox"/>	CC	<input checked="" type="checkbox"/>	IC <input type="checkbox"/>

^(a) Under the terms of the Flexible Financing Facility (document FN-655-1), the borrower has the option of requesting changes to the amortization schedule, as well as currency, interest rate, and commodity conversions. The Bank will take market conditions as well as operational and risk management considerations into account when reviewing such requests.

^(b) Under the flexible repayment options of the Flexible Financing Facility, changes to the grace period are permitted provided that they do not entail any extension of the original weighted average life of the loan or the last payment date as documented in the loan contract.

^(c) A one-time fee payable within 60 days of the entry into force of the loan contract.

^(d) The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with applicable policies.

^(e) The program will have two financing sources: Ordinary Capital and funds administered by the Bank under the Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (document GN-2804, resolution DE-12/15). Agreement signed by the Government of Korea and the Bank on 28 March 2015 and subsequently amended in April and October 2017 to increase the facility's amount.

^(f) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(g) GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

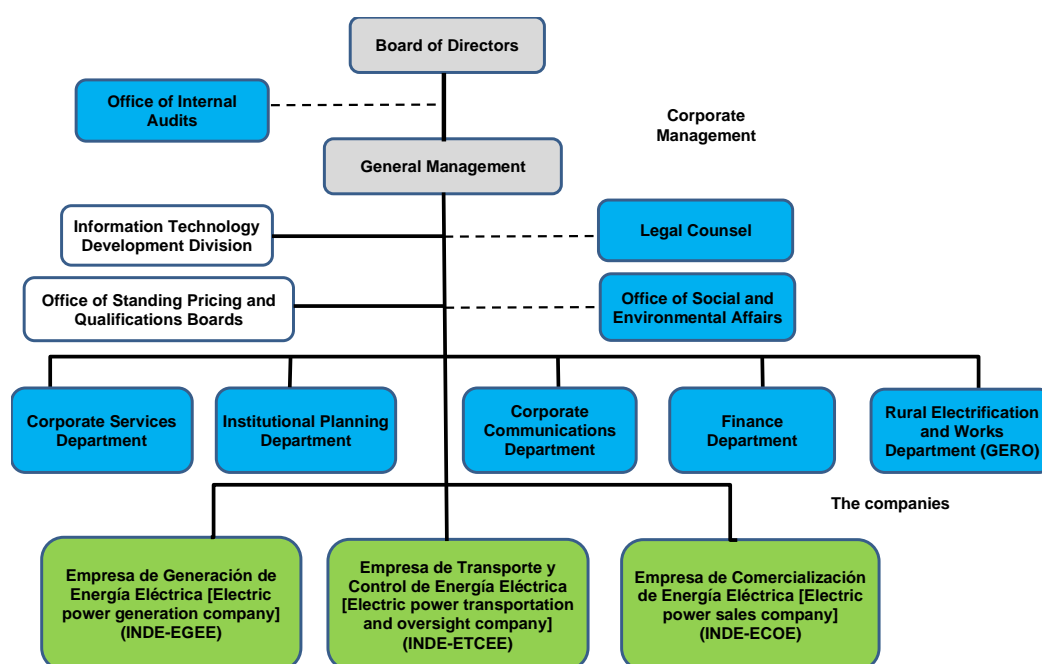
I. DESCRIPTION AND RESULTS MONITORING

A. Background, problem to be addressed, and rationale

- 1.1 **Macroeconomic context and competitiveness in Guatemala.** Guatemala has a sound macroeconomic framework, but the crisis caused by the COVID-19 pandemic is having a strong impact. The Guatemalan economy has been characterized by moderate, stable growth in recent years, with annual average growth of 3.1% in the past four years. Yet the country's economic stability has not translated into better income distribution. [Guatemala is the second most unequal country in the Northern Triangle and one of the six most unequal countries in Latin America.](#) While poverty rates in Latin America and the Caribbean dropped from 45% in 2002 to approximately 30% in 2019, [poverty rates in Guatemala held steady at around 55%](#) over the same period.
- 1.2 The International Monetary Fund projects that the economy will contract by 2% in 2020 due to the public health crisis. In July 2020, the monthly indicator of economic activity posted a year-on-year change of -4.8%, primarily driven by the social distancing measures instituted in the country. The COVID-19 pandemic has underscored the importance of affordable access to electricity service. Gaps in access have limited the ability of the most vulnerable groups (older adults, low-income households, and residents of rural areas) to obtain government services. For example, electric bills have been used to execute the Bono Familia cash transfer program. Before the pandemic, economic and social challenges were already taking a toll in Guatemala, and these social challenges are expected to worsen in the coming years.
- 1.3 [In 2018, Guatemala had a total population of 14.9 million people, 46.15% of whom lived in rural areas.](#) More than [76% of rural residents live in total poverty](#), compared to 42.1% of urban residents. The poverty rates in the departments targeted by the program are 83.1% in Alta Verapaz, 73.8% in Huehuetenango, and 60.8% in Petén, but only 33.3% in the capital. [Extreme poverty](#) affects 23.4% of the population nationwide, but the rate is higher among the indigenous population (39.8%) and in rural areas (35.3%). In Alta Verapaz, 53.6% of the population lives below the extreme poverty line, compared to 24.6% in Baja Verapaz, 28.6% in Huehuetenango, 41.8% in Quiché, and 20.2% in Petén. In the departments targeted by the program, 93%, 65%, and 30.2% of the population, respectively, is indigenous. Several of the municipios in the representative sample (paragraph 2.2) are home to large, diverse indigenous populations (Q'anjob'al in Barillas; Q'eqchi in Cobán; K'iche in Santa Cruz del Quiché; and Q'eqchi in Poptún and Las Cruces).
- 1.4 **The electricity sector.** Significant progress has been made in Guatemala's electricity sector since [sector reforms were approved in 1996](#). The following are the most notable achievements: (i) private sector participation in the system has increased to more than 80% in electricity generation, more than 30% in transmission, and over 90% in distribution; (ii) installed capacity has grown more than 250%, equivalent to over 7% per year; (iii) the primary supply of renewable energy has increased more than 150%; (iv) total electricity losses decreased from 16% to 12%, well below the average of 16.5% for Latin America and the Caribbean; and (v) dependence on oil for total energy exports decreased from 99.45% in 1996 to 38.17% in 2016. The latter is mostly because electricity exports, both to Mexico and to the Central American Electric Interconnection System, have surpassed

imports. This increased supply has translated into [lower electricity prices](#). While the unsubsidized rate averaged US\$0.24/kilowatt-hour (kWh) in 2013, the rate has averaged US\$0.22/kWh in 2020, after having reached a floor of US\$0.19/kWh in November 2017. Guatemala's installed capacity is 1,785.60 megawatts (MW). Total energy production in 2019 was 13,368.76 gigawatt-hours (GWh), with 12,228.23 GWh consumed domestically and 1,140.53 GWh exported to the Regional Energy Market or Mexico. In 2019, energy consumption reached 10,762.88 GWh, growing 2.99% compared to 2018.

Figure 1. INDE's organizational chart



- 1.5 **Institutional framework for the sector.** The electricity sector is governed by the [Electricity Act](#) of 1996. The Ministry of Energy and Mines (MEM) is the sector's lead agency, charged with developing and coordinating indicative programs related to the electricity subsector and for implementing energy policy, including electrification. The National Electricity Commission (CNEE) is the regulator and is responsible for setting rates (including subsidized rates), receiving and processing complaints, and ensuring service quality. The Instituto Nacional de Electrificación [National Electrification Institute] (INDE), the main national electricity company, is an autonomous and financially self-sustaining government agency, with its own legal status and assets. Within INDE, the Rural Electrification and Works Department prepares rural electrification plans pursuant to government policies and executes rural electrification programs directly or through third parties (see Figure 1). These programs include the construction of 13.8-kilovolt (kV) and 34.5-kV medium-voltage lines to connect communities to the power grid. Three private companies (Empresa Eléctrica de Guatemala S.A., Distribuidora de Electricidad de Oriente S.A., and Distribuidora de Electricidad de Occidente S.A.) are responsible for connecting users to the grid, operating and maintaining the

grid, and delivering service. These companies are required to provide service to users within a 200-meter radius of existing grids within their concession areas.

- 1.6 **Rural electrification.** [Progress has been made in electricity coverage in Guatemala](#). Though it stood at 52.37% in 1996, by 2018 it had climbed to [88.14% \(95.82% in urban areas compared to 77.68% in rural ones\)](#).¹ However, it is still below the [average for Latin America and the Caribbean \(97%\)](#).² Almost 400,000 households are not connected to the grid, 287,000 of which rely on gas lamps, candles, or kerosene—alternatives that are more expensive than electricity and generate carbon dioxide emissions. As in most countries in the region, the bulk of those who are not covered by electricity services in Guatemala reside in rural areas. Coverage rates are below 60% in 24 of the 340 municipios in the country, and 19 of those municipios are located in the departments of Alta Verapaz and Quiché. [If 20 of the municipios with the lowest coverage rates were connected to the grid, the national electricity coverage rate would increase by 3.47%, and if the 10 municipios with the lowest coverage were connected, the rate would increase by 2.5%](#). Only 52.5% of families living in extreme poverty are connected to the grid, while only 77% of poor families are connected. Families who are not poor have a connection rate of 92.2%. The [2018 Census](#) found that 70% of households without electricity are indigenous.
- 1.7 While more urban departments such as Guatemala, Sacatepéquez, and Escuintla have coverage above 96%, departments with larger rural populations such as Alta Verapaz, Petén, and Huehuetenango have coverage rates of 48.92%, 72.59%, and 81.51%, respectively. This means that [200,000 families \(approximately 876,000 people\) lack coverage](#).
- 1.8 Guatemala has made rural electrification a priority. According to Article 129 of the Guatemalan Constitution, “*the electrification of the country is declared a matter of national urgency*.” The Electricity Act and its regulations set forth the mechanisms to finance this endeavor. One of the goals set out in the [government plan’s](#) strategic actions in the area of housing is to foster access to utilities, including electricity, in rural areas. The national development plan, [Plan Nacional de Desarrollo K’atun: nuestra Guatemala 2032](#), highlights the need for electrification of rural areas to decrease poverty and food insecurity. It shows that inclusion in energy programs improves productivity, since it enables the extraction of groundwater for human consumption and irrigation, as well as access to health care and education. In addition, an objective of the [2020-2050 rural electrification policy](#) is to make electricity service universal by 2032, which requires an estimated investment of US\$669.5 million.
- 1.9 INDE began execution of the rural electrification plan in 1998, and for more than 20 years it has brought benefits to 284,000 new users by building and upgrading electrical substations, distribution grids, and transmission lines with an estimated investment of US\$200 million. In 1999, the plan’s overall target was to reach

¹ To improve electricity coverage in rural areas, countries need to develop policies for access and affordability in order to achieve universal coverage ([Iorio and Sanin, 2019](#)).

² [Serebrisky and Suárez-Alemán \(2019\)](#) analyzed the infrastructure lag in Latin America and the Caribbean, showing that infrastructure assets, their maintenance, and the delivery of associated services are inadequate and below average for a region with this level of development, thereby justifying an increase in public spending to provide affordable, quality infrastructure.

280,000 households and 1.5 million people, closing 50% of a coverage gap that stood at 65%. However, when this target was set in 1999, the country's total population was 11 million. Increases in coverage began to slow in 2005, after the coverage rate had reached 84%, and investments covered the growth in population. By 2018, the population had grown to 14.9 million and the coverage rate had risen to 88%. After the trust that financed the rural electrification plan closed in 2019, the government developed the [2020-2050 indicative rural electrification plan](#), and this operation has been developed under its framework.

- 1.10 **The contribution of rural electrification to development.** According to the Sustainable Development Goals, access to electricity is a basic requirement for reducing poverty. Access to electricity has a crosscutting influence on the basic dimensions of human development in a country, making it possible for people to have hospital facilities nearby, access to water and sanitation services, and access to technology for educational uses. It also fosters economic development, facilitating productivity gains and, by extension, better incomes and job opportunities. In an analysis of the findings of the impact evaluation of an IDB-financed rural electrification program, [Jiménez Mori \(2020\)](#) found that improving access to electricity service has positive impacts on household behavior and well-being, helping bring about changes in beneficiaries' well-being, perception of safety, and use of time.
- 1.11 Rural electrification plays a role in [mitigating adverse health outcomes, especially amid the current COVID-19 pandemic](#), since it supports improvements to service delivery at health care centers in rural areas, proper vaccine storage, and nighttime emergency care. In the medium term, it creates jobs while grids are being built and facilitates the development of production-related enterprises. Moreover, local labor is used for construction works, helping mitigate post-COVID-19 economic impacts.
- 1.12 **Mechanisms to provide electricity service to rural areas.** Practically speaking, there are three mechanisms to provide electricity service: (i) extension and densification of grids connected to the National Interconnected System (SNI); (ii) minigrids; and (iii) stand-alone systems using renewable energy. The Guatemalan government has made grid extensions the priority for this program for the following reasons: (i) with similar levels of investment, grid extensions currently provide more reliable service, since outages are less frequent and shorter in duration; and (ii) the density of these communities and their proximity to existing grids means that the cost of extending the grid is similar to or lower than the cost of stand-alone systems.³

³ [Levy and Carrasco \(2020\)](#) analyzed the criteria and measures to ensure service quality for grid extensions, showing that strategies should be developed to maintain service quality for both new and existing users.

Figure 2. Communities to be connected with the sample works.⁴



- 1.13 **Prioritization of municipios.** The MEM [designed a methodology to prioritize projects](#), which establishes the targets for achieving universal electrification and lists the communities to be included to reach the Guatemalan government's rural electrification target of 93.5% by 2023. This methodology consists of seven variables, shown in Table 1: two technical variables that carry a weight of 30% and five socioeconomic ones with a weight of 70%. The MEM used these criteria to select the municipios that will be evaluated for inclusion in the sample works, and the same criteria will be used to select the projects not included in the sample. The executing agency will be informed of the municipios selected through a report on the priority municipios.
- 1.14 After an analysis of each of these indicators for all 340 municipios in Guatemala, the MEM ranked the communities from highest to lowest, with the highest values indicating the highest priority. The highest ranked municipio is San Agustín Lanquín in the department of Alta Verapaz with a score of 79.3, while the lowest is San José del Golfo in the department of Guatemala, with a score of 10.9. (See Annex 2 of [optional link 8](#)).
- 1.15 **Selection of communities within these municipios.** To determine the communities that will benefit from the rural electrification programs, the MEM prepares a socioeconomic assessment of communities that requested to be connected to the electric grid, verifying that the requirements of Article 47 of the Electricity Act have been met. Under that article: (i) the community must be located in a rural part of the country; (ii) the community must be outside the 200-meter radius in which electricity distributors are required to provide service; (iii) the benefit must not be for private farms (whose owners are under the obligation to provide service); (iv) only existing, formal housing may benefit; and (v) the community must have poor socioeconomic indicators ([optional link 8](#)).

⁴ The blue dots represent the communities that will be connected, while the pink dots are connection points for the SNI grid. A capacity report will be prepared for the latter. The yellow lines represent the infrastructure that will be covered by usufruct contracts.

- 1.16 **Capacity report.** To extend a grid, it must have the available capacity to serve new users without decreasing service quality for existing ones. Before a specific project is selected, INDE must obtain an official response from the transmission company (when the extension is through a substation) or the distribution company (when the extension is from a point in the medium-voltage grid). This official response is secured by means of a capacity report, which will be an eligibility criteria for the program works. This report authorizes INDE to connect to the company's grids for construction purposes. The works are built following the technical specifications of the distributor, which in turn supervises them to verify compliance with its specifications.
- 1.17 **Agreement with distributors.** INDE will not charge the distributor for using the works. The distributor cannot add the cost to the fee schedule, and therefore the fees charged to users will not reflect these costs. At the time the assets are received, the distributor that will operate and maintain them will sign an agreement with INDE that lists the assets transferred and grants the distributor the right to use the works in order to connect users, operate and maintain the works, and establish commercial relationships with connected users, pursuant to the provisions of Article 47 of the Electricity Act (see Annex 2 of [optional link 8](#)).
- 1.18 **Program execution strategy.** Drawing on the lessons learned from the Multiphase Rural Electrification Program (loan 2033/OC-GU), the program will extend 13.8-kV and 34.5-kV grids to communities whose representatives have signed, during the inform and enlist phase of the program, an agreement known as a memorandum of consent in which they confirm that they requested the connection (paragraph 1.15)⁵ and are willing to assume the responsibility of paying for the electricity service. Once the grids have been built, the distributors will operate the infrastructure under agreements signed by each distributor (paragraph 1.17), connect users and provide them with [Level 4 service quality at a minimum](#), operate and maintain the grids, and manage the business. In addition, distributors are supervised by the CNEE, whose mandate includes evaluating service quality. This will ensure the sustainability of the investments.
- 1.19 **The Bank's experience and lessons learned.** The Bank has substantial knowledge of the sector and has financed several loan operations aligned with the objective of increasing access to energy in rural areas. The effectiveness of these operations has been proven by their achievement of the objectives they originally set out. Notable examples include loans [2608/OC-EC](#)⁶ and [2460/BL-BO](#),⁷ and more recently, loans 3725/BL-BO, 3165/OC-PN, and 3182/OC-DR. These operations have shown that close social relationships with the community are needed over the course of the program, including providing training on the efficient and productive use of energy and the benefits and responsibilities that the service entails. This program has also benefitted from lessons learned from the support

⁵ This memorandum of consent is necessary because some requests were submitted by the communities a very long time ago, so there is a need to confirm whether the community still wants to be connected.

⁶ This operation promoted productive uses of electricity among rural area populations, benefitting 103,172 households with new or upgraded electricity service and attaining the original objective.

⁷ Quality of life was improved for this operation's beneficiaries, with surveys finding that 100% used the new service to put lighting in their homes. In 99% of the cases, the most frequently used device was a cellular phone, reducing the digital gap.

- provided to INDE with the Multiphase Rural Electrification Program – Phase 1 (loan 2033/OC-GU), which demonstrated the need to focus on grid extensions. The differences between that program and the current one and the findings from the Institutional Capacity Assessment Platform (ICAP) contributed to the design of an efficient, effective execution structure for this program.
- 1.20 The ICAP was used to identify weaknesses at INDE related to its ability to assume responsibility for program execution, which included the need to strengthen its capacity for working with the communities to minimize social conflicts. This operation calls for the inclusion of social and environmental specialists on the program execution unit (PEU) team. These specialists will develop a suitable communication strategy and activities to support the dialogue process with each community. A previous rural electrification program, loan 2033/OC-GU, was executed through a trust and direct partnerships with distributors, which facilitated the execution of works. For this operation, however, INDE will establish a PEU that will need to complement its capacity to manage financial resources and administer contracts from the planned international competitive bidding processes. This design builds on the experience of other programs executed or in execution by several divisions of the IDB in Guatemala, including programs in the health (such as loans 4791/OC-GU and 5107/OC-GU), education (loan 3618/OC-GU), and infrastructure (loans 2242/BL-GU and 4746/OC-GU) sectors, which have demonstrated the need for clear criteria, a detailed multi-year execution plan that is continuously updated, and detailed program Operating Regulations that include all steps, forms, a description of the PEU's and the executing agency's responsibilities, execution timelines, and procurement methods, to facilitate program execution.
- 1.21 **Strategic alignment.** The program is aligned with the second Update to the Institutional Strategy 2020-2023 (document [AB-3190-2](#)), supporting the challenges of: (i) social inclusion and equality, by targeting areas where a large percentage of the population is indigenous; and (ii) productivity and innovation, by providing quality energy that allows for the installation of electrical equipment that is suitable for micro, small, and medium-sized enterprises. The program is also aligned with the crosscutting theme of climate change through such activities as the installation of readily available anticorrosive materials, the elevation of works to prevent flooding, the installation of solid anchors, the separation of power lines in windy areas, and the installation of infrastructure next to roads for easy access and maintenance. Approximately 4.92% of program resources are invested in climate change adaptation activities, according to the [joint methodology of the multilateral development banks for tracking climate change adaptation finance](#). These resources contribute to the IDB Group target of increasing financing for climate-related projects to 30% of approvals by the end of 2020.⁸ The program is consistent with the IDB Group Country Strategy with Guatemala 2017-2020 (document GN-2899), giving priority to investments in access to safe energy to reduce poverty and inequality, improve the quality of life for rural and indigenous populations, and increase electricity coverage. The operation is included in the

⁸ Adaptation activities refer to the screening for natural hazards, including floods, that will be performed under the operation's social and environmental framework. High-risk projects should include risk mitigation measures as part of this process.

Update of the Annex III of the 2020 Operational Program Report (document GN-2991-3).

- 1.22 This program is aligned with: (i) Sustainable Infrastructure for Competitiveness and Inclusive Growth. IDB Infrastructure Strategy (document GN-2710-5); and (ii) the IDB Integrated Strategy for Climate Change Adaptation and Mitigation, and Sustainable and Renewable Energy (document GN-2609-1), inasmuch as it recognizes and mitigates the impact of climate change on the works built under the program by incorporating features to make that infrastructure resilient to climate events. The operation is also consistent with: (i) the Climate Change Sector Framework Document (document GN-2835-8), by promoting renewable energy; (ii) the IDB Group Corporate Results Framework, 2020-2023 (document GN-2727-12), by contributing to the “households with improved access to energy services” indicator; and (iii) the Energy Sector Framework Document (document GN-2830-8), through the priority areas of energy access, energy security, and energy sustainability and efficiency.
- 1.23 **Climate change.** Guatemala is one of the world’s most vulnerable countries to natural hazards, a situation that is expected to worsen because of climate change. Estimates show that annual average temperatures will increase by 1.82°C and annual precipitation will decrease by 49.86 mm from 2040 to 2059, while annual maximum five-day rainfall will rise by 15.28 mm over that period (Representative Concentration Pathways 8.5, ensemble – data from the [Climate Change Knowledge Portal](#)). These changes and a possible increase in tropical storms and extreme weather events threaten the country’s infrastructure, including its energy infrastructure. One of the pillars of the [Climate Change Framework Law](#), the [Second National Communication on Climate Change](#), the [Nationally Determined Contribution](#) and the [National Policy on Natural Disaster Risks](#) (2011) is taking measures to increase infrastructure resilience. The Second Communication calls for the preparation of risk-management-based guidelines to reduce vulnerability and improve adaptation capacity.
- 1.24 In its environmental and social management framework (ESMF), this program includes screening for natural hazards (see [optional link 10](#)), which helps establish the initial grounds of what might become a process to assess the climate risk of rural electrification projects. Moreover, the final designs for the works will include features and measures to reduce vulnerability to the most common hazards in the areas where they will be built (floods, earthquakes, landslides, and volcanic eruptions). More specifically, the program’s resilience measures include the use of readily available anticorrosive materials, elevating works to prevent flooding, installation of solid anchors, separation of power lines in windy areas, and installation of infrastructure next to roads for easy access and maintenance. In addition, the program calls for wooden posts to be used in lieu of concrete posts wherever technically and financially feasible. The advantage of wooden posts is that they are biodegradable and weigh less, which means fewer fossil fuels are consumed when transporting them. It also removes the need to use concrete, which generates high amounts of greenhouse gases, to manufacture them. Wooden posts are also more portable, making them easier to dismantle, replace, and move when weather events occur. It is important to note that these posts account for 19% of the cost of the works.

1.25 **Compliance with the Bank's Public Utilities Policy (document GN-2716-6).**

The program is consistent with the general elements of the Public Utilities Policy, since it meets the conditions of: (i) financial sustainability, given that the projects to be financed meet cost-efficiency criteria, in line with investments in the sector; and (ii) economic evaluation, since the works to be financed will be selected based on a detailed analysis of their technical and financial/economic viability. The program is consistent with the following principles of the Public Utilities Policy: (i) promotion of access to and quality of public utilities, as it will foster increased coverage in rural areas and reliable, quality service delivery, requiring services to be Level 4 quality at a minimum (paragraph 1.18); and (ii) deliver service efficiently, by providing a service at a lower cost thanks to the connection mechanism and the cost of the electricity provided by the SNI. The sector also has an appropriate institutional framework, since: (i) there is a separation of roles between the MEM, as the sector's public policy-maker; the CNEE, as the regulator; and the electricity generation, transmission, and distribution companies; (ii) the sector is open to private participation in electricity generation, transmission, and distribution; and (iii) the rate structure provides for the administration, operation, and maintenance of the investments to be made under the program.

B. Objectives, components, and cost

1.26 **Objective.** The general objective of this operation is to increase electricity coverage in rural areas of the Republic of Guatemala. The specific objective is to connect more new users in rural areas by building distribution grids.

1.27 **Sole component. Construction of medium- and low-voltage grids (US\$118 million).** This component will finance the construction of medium- and low-voltage grids, including the installation of posts, wiring, transformers, and other necessary materials and equipment. To that end, an estimated US\$106 million will be used to contract the services of construction companies to carry out the works, while an estimated US\$12 million will be used to contract the services of works inspection companies, with the program's sample works included in these amounts. INDE has presented four projects under this component and has basic technical designs for those projects, which are part of the representative sample of works shown in Table 4.

1.28 By mutual agreement with the Bank, INDE may replace any of the projects to be financed, provided that: (i) the new project meets the eligibility criteria for selection of the works (paragraph 2.3); (ii) the corresponding justification is submitted; and (iii) the change does not exceed the total amount of financing for the operation.

1.29 **Program administration, supervision, monitoring, evaluation, and auditing (US\$2 million)** This component will finance the administration costs for the PEU, per diem allowances, and vehicle rental expenses for INDE to supervise the works, as well as planned audits and technical and socioenvironmental studies for the projects not included in the sample. It will also finance the contracting of consultants to support procurement processes (except the INDE staff members who are reporting officers), the monitoring of program activities and social and environmental management, the contracting of the program's midterm and final evaluations, and the cost of the expected program audits. These costs are justified because they: (i) are part of the program; (ii) are necessary to achieve the program's development objectives; and (iii) are productive in the context of the

specific operation being supported. INDE has the budget to continue financing these costs after the program ends, where necessary.

C. Key results indicators

- 1.30 **Expected outcomes.** The program is expected to help increase the rural electricity coverage rate to 80.46%.⁹ Moreover, 40,000 households should obtain access to energy services thanks to the construction of more than 2,900 kilometers of medium- and low-voltage lines. The projects that will be included in the program that were not in the representative sample should be identified by the time the operation's launch workshop takes place. Once they have been identified, more precise expected outcomes will be defined¹⁰ (see Annex II).
- 1.31 **Beneficiaries.** The program will benefit approximately 40,000 rural households, mostly indigenous households, that lack access to electricity. Beneficiaries were preliminarily identified in six of Guatemala's departments: (i) Alta Verapaz; (ii) Baja Verapaz; (iii) Huehuetenango; (iv) Quiché; (v) Petén; and (vi) Izabal and other departments whose municipios meet the eligibility criteria (paragraph 2.3).
- 1.32 **Monitoring of the operation's benefits for vulnerable groups.** The IDB Group is committed to reducing the economic and social gaps that persist in the region. Therefore, the [Corporate Results Framework 2020-2023](#) underscores the importance of including disaggregated data on gender and diversity for outcome indicators. Therefore, disaggregated data on the gender of the head of household, on indigenous people living in the household, and on whether any members of the household are persons with disabilities will be included for the operation's standard indicator—households with upgraded access to energy services. The program is expected to install new electricity connections to rural households, benefitting: (i) 31,207 indigenous households; (ii) 6,932 households with women heads of household; and (iii) 5,515 households whose members include persons with disabilities.¹¹
- 1.33 **Economic evaluation.** A cost-benefit analysis was conducted, which yielded favorable results: an economic net present value (ENPV) of US\$6.67 million, discounted at a rate of 12%, and an economic internal rate of return (EIRR) of 16.1%, as shown in Table 2. The costs analyzed were for medium- and low-voltage grids and hybrid grids, including equipment and labor costs, as well as construction and inspection costs, using the costs of a recently finished project executed by INDE as a model. The benefits were compared to energy supply alternatives, including candles, batteries, mobile phone recharge costs, and kerosene to fuel lamps for lighting.

⁹ According to the 2018 Census, the rural electricity coverage rate was 77.68%.

¹⁰ Since this is a multiple-works program, post-project outcomes and coverage levels might be adjusted during execution, based on the projects not included in the sample that are end up being prioritized.

¹¹ This disaggregation was based on the estimated number of households in the departments targeted for program intervention and percentages of vulnerable populations obtained from the results of the 2018 Census.

Table 2: Economic analysis results.

Project	Investment (US\$ millions)	ENPV (US\$ millions)	EIRR (%)
Cobán, Alta Verapaz	17.26	5.64	18.83
Barillas, Huehuetenango	4.83	3.05	23.43
Poptún, Petén	7.82	(0.01)	11.97
Las Cruces, Petén	3.37	(1.69)	2.45
Total	33.28	6.67	16.06

- 1.34 The [sensitivity analysis](#) for changes in an array of key variables shows positive results for all the scenarios evaluated: (i) reducing energy costs by 40% resulted in an ENPV of US\$1.56 million and an EIRR of 12.99%; (ii) increasing operating and maintenance costs by 25% resulted in an ENPV of US\$2.64 million and an EIRR of 13.63%; (iii) increasing the investment cost by 10% showed an ENPV of US\$1.1 million and an EIRR of 12.63%; and (iv) decreasing the target amount of households by 10% for the same investment showed an ENPV of US\$400,000 and an EIRR of 12.24%;

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

- 2.1 **Cost and financing.** The operation is structured as a “multiple works”¹² investment program. The cost is US\$120 million, consisting of US\$60 million financed by the IDB from Ordinary Capital and US\$60 million in cofinancing from the Korea Infrastructure Development Cofinancing Facility for Latin America and the Caribbean (KIF). There will be no counterpart contribution from the Guatemalan government.

Table 3. Estimated program costs (US\$ millions)

Components	IDB	KIF cofinancing	Total	%
Sole component. Construction of medium- and low-voltage grids	58	60	118	98.33
Program administration, supervision, monitoring, evaluation, and auditing	2	-	2	1.67
Total	60	60	120	100

- 2.2 **Sample.** During due diligence, a representative sample was prepared, amounting to US\$33.28 million or approximately 30% of the total program cost. This sample is set out in Table 4.

¹² Multiple works programs are investment loans designed to finance groups of similar works based on a fully defined sample with the following characteristics: (i) they are physically similar but independent of each other; (ii) their feasibility does not depend on the execution of any particular number of the works projects; and (iii) their individual size does not warrant individual programs. The independence of the works allows for their divisibility, in that some can be eliminated or postponed indefinitely without impacting the others.

Table 4. Sample of program works

Municipio	No. of communities (% coverage)	No. of users (% indigenous)	Estimated investment (US\$ millions)	Grids built (km)
Barillas, Huehuetenango	35 (63.3%)	2,235 (85.5%)	4.83	131
Cobán, Alta Verapaz	107 (57.7%)	6,044 (85.4%)	17.26	469
Poptún, Petén	33 (67.4%)	1,781 (34.0%)	7.82	212
Las Cruces, Petén	8 (75.8%)	433 (21.3%)	3.37	92
Total	183	10,493	33.28	904

- 2.3 Eligibility criteria for selection of the works.** The eligibility criteria for the works financed under the program will be the same as those that guided the preparation of the sample based on the reference lists, to wit: (i) the beneficiary communities are located in the municipios prioritized by the MEM (paragraph 1.13); (ii) consent has been obtained from the beneficiary community (paragraph 1.18); (iii) connection points to the SNI at the substation or line level have enough capacity to extend the service as indicated in the capacity report (paragraph 1.16); and (iv) the works are not classified as Category “A” pursuant to the Bank’s environmental and social safeguards policy, meaning they: do not have the potential to cause significant impacts on critical natural habitats or damage to critical cultural sites; will not cause significant or moderate adverse impacts on indigenous peoples; and will not cause significant adverse impacts to the economic activities or means of support of residents in their area of influence, based on the environmental and social management framework (ESMF) (paragraph 2.5), which means that the works are environmentally viable.
- 2.4 Disbursement period.** As indicated in paragraph 2.1, the disbursement period will be five years, and the deadline for the start of works planned under the program will be 48 months.¹³ The following table shows the full disbursement schedule for the program.

Table 5. Program disbursement schedule (US\$)¹⁴

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
IDB	23,235,414	13,686,171	10,502,532	6,643,860	5,932,023	60,000,000
KIF	16,721,350	18,786,746	13,551,256	5,422,111	5,518,538	60,000,000
Total	39,956,764	32,472,916	24,053,788	12,065,971	11,450,561	120,000,000

B. Environmental and social risks

- 2.5** In accordance with the Environment and Safeguards Compliance Policy (Operational Policy OP-703), the program has been classified as a Category “B” operation since the installation of posts and medium- and low-voltage wiring could cause local, short-term negative socioenvironmental impacts that are not scalable and can be mitigated with standard mitigation measures. Because this is a

¹³ A plan for the early execution of the program is being prepared with the executing agency, using resources from a technical cooperation operation to finance the studies required. This could substantially accelerate development of the projects.

¹⁴ Due to the regulations that set out the requirements for the country accounting systems used by INDE, the sources of financing must be separated even though this is a single program. Therefore, the financing will be by project and not under pari-passu arrangements.

multiple-works program, an environmental and social analysis (ESA) and an environmental and social management plan (ESMP) were prepared ([optional link 3](#) and [optional link 4](#)) for the sample. An ESMF was also prepared ([optional link 5](#)), which sets out specific control and management measures for the planning and execution of future investments envisaged under the program. The operation will not cause physical displacement or have significant socioeconomic impacts on the population, and its impact on critical natural habitats will be minimal, with these conditions being exclusionary criteria. All posts will be installed along the right of way of existing roads, and no new access roads may be created to install the equipment. Moreover, the goal is to connect future distribution lines to existing substations with sufficient capacity. There is a risk of conflict between beneficiary communities and communities that will not benefit from the program, to be mitigated through the implementation of a consultation and community engagement process during operation execution. Final versions of the ESA, the ESMP, the ESMF, and the consultation report are available on the IDB website.

- 2.6 A social management specialist and an environmental management specialist will be hired to bolster INDE's capacity and ensure the program's effective socioenvironmental management pursuant to the provisions of the ESMP and the ESMF.
- 2.7 Significant and socioculturally appropriate consultations were conducted in September 2020 in the municipios of Poptún, Las Cruces, Santa Cruz de Barillas, and Cobán. A total of 699 individuals, mainly community leaders, participated. Most participants expressed support for the program. The main concerns raised were related to the cost of electricity rates, the installations that would need to be made in their households and the cost of those installations, the party that would be responsible for installation and payment of public street lighting, and whether the program would also consider families who lived far from community centers. A consultation report has been published ([optional link 9](#)). For more information, see the environmental and social management report ([required link 4](#)).

C. Fiduciary risks

- 2.8 The ICAP was used to determine the level of fiduciary risk and found a medium level of risk, identifying the following specific risks:
 - i. **Execution delays** due to the excess workload that executing program activities and fiduciary processes will entail for INDE staff and their lack of knowledge in applying the Bank's fiduciary procedures. The proposed mitigation measures are: (i) the program execution unit (PEU) created will be staffed with reporting officers for fiduciary matters, who will be responsible for financial management and will have experience with financial policies for projects financed by multilateral organizations, and for procurement management. The reporting officers will work on the program full-time. They will be supported in procurement management by a consultant experienced in managing procurement processes under IDB policies and regulations, based on the terms of reference and profile agreed upon with the Bank. Loan proceeds may be used to contract the services of the consultant; (ii) training workshops on fiduciary matters will be conducted as a refresher; and (iii) the Bank's sector team will conduct

management workshops to review program planning based on the targets established and the processes to follow.

- ii. **Cancellations** of the expected program procurements, due to the executing agency not following the provisions of Bank policies. The proposed mitigation measures are: (i) the members of the qualification boards will be staff familiar with the program's governance framework and Bank policies; (ii) training will be provided to qualification board members, with Bank support; (iii) procurement management procedures and workflows will be set out in the program Operating Regulations; and (iv) the Bank's sector team will regularly conduct management workshops.
- iii. **Execution delays** due to a lack of budget management or financial allocations that are too low to meet the program's financial obligations. The proposed mitigation measures are: (i) a budget code will be assigned to the investment program to identify it within the INDE's budget; and (ii) there will be comprehensive planning of activities and identification of budgetary needs so allocations can be processed in a timely manner.
- iv. **Ineffective contract management**, to be mitigated by such measures as the following: (i) the contract management certificate will be implemented as a monitoring tool and the responsible parties will be designated; and (ii) procedures will be applied to ensure that accounting entries for goods and works built under the program are recorded and to ensure timely payment and transfer to distribution companies for their operation and maintenance and for service delivery.

D. Other key issues and risks

- 2.9 **COVID-19.** One medium risk identified is that the COVID-19 crisis may stretch out, hindering program management and works. Should that occur, technological tools would be used as much as possible for program management and local employees would be hired wherever possible (to prevent travel), following the country's safety measures at all times.
- 2.10 **Operation and maintenance of program works.** The mandate of the National Electricity Commission (CNEE) includes ensuring service quality and issuing sanctions for noncompliance. The rate base, and by extension the distributor's compensation, includes the costs of operating and maintaining the service, including program works. No distinction will be made between program works and the other infrastructure managed by the distributor, which will ensure that they are treated the same and that the prevailing technical standards for [quality](#) and [operation and maintenance](#) of the distribution service will apply. Moreover, Guatemala is considered to have quality electricity service. Given this supervision by the CNEE and the fact that rates cover compensation of the activities, the risk of a lack of maintenance is considered low.
- 2.11 **Transparency in the use of program resources.** Program works will be executed by contractors selected through public bidding processes, which will aim to have the greatest number of participants possible. Bidding specifications will include basic designs based on the provisions of the distributors' technical specifications. The program will contract firms to conduct independent supervision of the works, and the works will also be supervised by the executing agency and

the distributor. In addition, an independent firm selected from a Bank-provided list will conduct the program audit.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

- 3.1 **Execution mechanism.** The borrower will be the Republic of Guatemala, and the executing agency will be the National Electrification Institute (INDE), through a program execution unit (PEU). The borrower, through the Ministry of Public Finance (MINFIN), and INDE will sign a subsidiary agreement on program execution and transfer of funds, which will set out the terms for transferring loan proceeds to INDE as well as the execution obligations of all parties involved in the program. The INDE board of directors will establish, by resolution, a PEU that will report to General Management and will be functionally linked to the Rural Electrification and Works Department to coordinate execution. The ICAP was used to assess the INDE's legal framework, organization, technical capacity, financial management, procurement management, human resource management, asset administration, internal control, and external control, and the findings of that assessment informed the design of the execution mechanism.
- 3.2 The members of the PEU will be INDE employees appointed to the unit by General Management. The PEU will have reporting officers, including the program's general coordinator and the financial management specialist. The latter will have experience with the financial policies of projects financed by multilateral organizations. The PEU will also include a reporting officer responsible for procurement management, who will be supported by a consultant with experience with Bank policies, based on the terms of reference and profiles agreed upon with the Bank. All PEU staff will work on the program full-time. Loan proceeds will be used to hire the following consultants to bolster the capacities of the PEU: a procurement consultant who has experience with the Bank's policies; a social management specialist, an environmental management specialist, and support for technical, monitoring, and evaluation tasks. If necessary and if there are no alternatives within INDE to strengthen the program's financial management, the need to hire a financial specialist to support the PEU will be evaluated. In addition, the Rural Electrification and Works Department will provide support for works planning, design, and supervision activities.
- 3.3 The PEU will perform the following functions: (i) conduct the procurement processes planned for the program pursuant to the provisions of the Bank's procurement policies and supervise their implementation; (ii) maintain the program's financial records; (iii) prepare the following documents: (a) the program execution plan; (b) the annual work plan; (c) the procurement plan and its modifications; (d) semiannual progress reports; and (e) audited financial statements; and (iv) contract consultants to conduct a midterm evaluation and a final evaluation of the program and submit the respective reports to the Bank and MINFIN. The PEU will also be responsible for planning, design, and monitoring processes; project management; administration; management of procurement of works and services and contracting of consultants; supervision of works; program financial management; and environmental and social management. This includes ensuring that the eligibility criteria and the execution conditions established in

- paragraphs 1.9, 2.3, and 3.5–3.9 are fulfilled. Its connection with the General Management Office will provide the unit access to the resources of other INDE departments as needed. INDE has administrative and financial autonomy and is able to manage and supervise the works.
- 3.4 **The executing agency's experience.** The executing agency, INDE, has extensive experience implementing electrification projects (such as the rural electrification plan) and completed Phase I of the Multiphase Rural Electrification Program (loan 2033/OC-GU) within five years.
- 3.5 **The following will be conditions precedent to the first disbursement of the financing:** (i) The [program Operating Regulations](#) will have been approved by INDE and will have entered into force, under the terms agreed upon with the Bank, so that the responsibilities, rules, and procedures for execution have been agreed upon and adopted; (ii) the borrower, acting through MINFIN, and INDE will have signed a subsidiary agreement on program execution and the transfer of funds, establishing the terms under which loan proceeds will be transferred to INDE and stipulating the parties' responsibilities in program execution, to ensure both the timely transfer of resources and execution of functions, since INDE has legal status independent from the borrower; and (iii) the program execution unit (PEU) will have been created via a resolution from the INDE board of directors, and INDE staff members will have been appointed to serve on the PEU in the following roles: a general coordinator, a financial management specialist with experience in the financial management of projects financed by multilateral organizations, and a procurement specialist, in accordance with the profiles agreed upon with the Bank. The staff members in these roles will be reporting officers for the purposes of the provisions of the Budget Act's regulations and will work on the program full-time. This will ensure that financial management and procurement are conducted according to the Bank's policies and procedures; and (iv) INDE will have submitted the terms of reference for the contracting of the environmental specialist and the social specialist who will make up the socioenvironmental team for program execution, so that the positions of the environmental and social specialists will be filled by the time that the loans have been declared eligible.
- 3.6 **Special contractual conditions for execution:** Upon completion of each work, INDE and the corresponding electricity distributor will sign an agreement listing the assets transferred and granting the distributor the right to use the works in order to connect users, operate and maintain the works, and establish commercial relationships with connected users, pursuant to the provisions of Article 47 of the Electricity Act (paragraph 1.17). This condition is required to ensure that the distribution company is able to manage the assets in order to deliver service to end users.
- 3.7 **Program Operating Regulations** [\(optional link 6\)](#). Program execution will be governed by the provisions of its Operating Regulations, as previously agreed upon with the Bank, to ensure effective program execution. These regulations will include all the procedures to be used during program execution and may be modified with the Bank's written no objection. The Operating Regulations will include, at a minimum: (i) a detailed execution structure setting out the institutional

and operational roles and responsibilities of the executing agency; (ii) details of the procedures for the selection and procurement of works, goods, and services; (iii) rules and procedures for administrative and financial management; (iv) procedures to record accounting entries for goods and works, and the timely payment and transfer of the works built to distribution companies for their operation and maintenance and for service delivery; (v) monitoring and supervision procedures. and (vi) measures, actions, and procedures established in the ESMP, and the ESMF will be included as an attachment.

- 3.8 **Procurement of goods, works, and consulting and nonconsulting services.** Procurements financed with loan proceeds will be conducted in accordance with the Bank's procurement policies (documents GN-2349-15 and GN-2350-15). The principles and criteria of the Financial Management Guidelines for IDB-Financed Projects (document OP-273-12 or the current version) will be followed.
- 3.9 **Audits.** During execution, INDE will submit audited financial statements for the program on an annual basis, in accordance with the Bank's terms. The audits will be performed by an independent audit firm acceptable to the Bank in Guatemala or by the Office of the Comptroller General. These statements will be submitted within 120 days following the close of each fiscal year, and the final statement will be submitted within 120 days after the effective date of the last disbursement.

B. Summary of arrangements for monitoring results

- 3.10 The program has a monitoring and evaluation plan ([required link 2](#)). The monitoring mechanism will include: (i) the procurement plan ([required link 4](#)); (ii) the annual work plan ([required link 1](#)); (iii) annual verification that the targets set forth in Annex II were met; and (iv) semiannual reports that will cover: (a) activities conducted during that period, progress in their execution, problems that emerged, and solutions; (b) evaluations of the results matrix, the procurement plan, and the annual work plan; and (c) analysis of the IDB's program monitoring report, evaluating whether the outcome and output indicator targets set out in the results matrix were met. The report will also evaluate execution during that period and include planning for the following six-month period. Semiannual reports will be submitted for the Bank's approval by 30 July and 30 January of each year.
- 3.11 The monitoring and evaluation plan includes the program's evaluation mechanisms, which are designed to verify that the targets agreed upon in the results matrix are met. INDE will select and contract consulting services to conduct: (i) a midterm evaluation, once 50% of program resources have been disbursed and justified, or 30 months after the first disbursement of program resources, whichever occurs first. This evaluation will focus on analyzing the progress achieved, coordination and execution considerations, the degree of fulfillment of contractual obligations, recommendations to achieve the proposed targets, and sustainability of the investments; (ii) a final evaluation, once 90% of program resources have been disbursed, with the final report submitted within 30 days of its preparation. The final evaluation will determine: the degree to which the targets established in the results matrix were achieved, the performance of the executing agency, factors that impacted program implementation, and recommendations for future operations; and (iii) an ex post cost-benefit analysis following the methodology used for the ex ante economic evaluation.

Development Effectiveness Matrix		
Summary		GU-L1171
I. Corporate and Country Priorities		
Section 1. IDB Group Strategic Priorities and CRF Indicators		
Development Challenges & Cross-cutting Issues	-Social Inclusion and Equality -Productivity and Innovation -Climate Change	
CRF Level 2 Indicators: IDB Group Contributions to Development Results	-Households with improved access to energy services (#)	
2. Country Development Objectives		
Country Strategy Results Matrix	GN-2899	Reducción de la pobreza y la desigualdad
Country Program Results Matrix	GN-2991-3	The intervention is included in the 2020 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		10.0
3.1 Program Diagnosis		2.5
3.2 Proposed Interventions or Solutions		3.5
3.3 Results Matrix Quality		4.0
4. Ex ante Economic Analysis		10.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		1.5
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		2.5
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		9.5
5.1 Monitoring Mechanisms		4.0
5.2 Evaluation Plan		5.5
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium Low
Environmental & social risk classification		B
IV. IDB's Role - Additionality		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)		
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
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		

Evaluability Assessment Note: This is a multiple works program of US\$120 million, of which US\$60 million funded by ordinary capital and US\$60 million by the Korean Infrastructure Fund (KIF), to be executed by the National Electrification Institute (INDE). The overall objective is to increase electricity coverage in rural areas. The specific objective is to expand the connection of new users in rural areas through the construction of 2,900 km of medium and low voltage distribution lines which will enable access by 40,000 households to currently non-available electricity services disaggregated as follows: (i) 31,207 indigenous households; (ii) 6,932 households headed by a female; and (iii) 5,515 rural households with people with disabilities. The proposed interventions seek to expand access to electricity in rural Guatemala where the largest concentration of poor families and families in extreme poverty is found. The project is expected to help increase the rural electricity coverage rate from 77.7% to 80.5% in the five-year period of implementation. It is estimated that of the households without access to electricity 70% are of indigenous families. The vertical logic of the project is consistent. The results indicators are adequate and correspond to the objectives of the operation. Interventions are clearly linked to the problems identified in the diagnosis and are based on empirical evidence. IDB-funded rural electrification operations in similar contexts in Ecuador and Bolivia were effective in expanding electricity access to the most disadvantaged populations.

The ex-ante economic analysis of the intervention is appropriate. It was carried out using reasonable assumptions and was done by type of project of the representative sample. The net present value per project and their respective expected economic return are as follows: Cobán, US\$5.64 MM, 18.83%; Barillas, US\$3.05 MM, 23.43%; Poptún, US\$0.0 MM, 11.97%; Las Cruces, -US\$1.69 MM, 2.45%. A sensitivity analysis was performed under adequate assumptions. The monitoring and evaluation plan is well presented and developed. It envisions an ex-post cost-benefit analysis and it presents an appropriate methodology for assessing effectiveness and attribution at the end of the operation. The main identified risk is institutional associated with the availability of sufficient human resources and with the required experience in the executing agency for undertaking the public works. Appropriate measures are envisaged to mitigate this and other identified risks of the operation.

RESULTS MATRIX¹

Program objective:	The general objective of this operation is to increase electricity coverage in rural areas in the Republic of Guatemala. The specific objective is to connect more new users in rural areas by building distribution grids.
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General development objective

Indicator	Unit of measure	Baseline	Expected year achieved	Target	Means of verification	Comments
General development objective: Increase national electricity coverage in rural areas.						
Electricity coverage rate in rural areas*	Percentage	77.68%	2026	80.46% ²	Annual report on the electricity coverage rate . Energy Department, Ministry of Energy and Mines (MEM)	This indicator aligns with the “reducing poverty and inequality” pillar of the IDB Group Country Strategy (document GN-2899).

* Rural area is defined using the [definition from Guatemala's 2018 Census](#).

Specific development objective

Indicator	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of operation	Means of verification	Comments
Specific development objective: Connect more new users in rural areas by building distribution grids.										
Households with new or upgraded access to energy services	Number	0	0	5,331	5,600	12,105	16,964	40,000	Official report from the National Electrification Institute (INDE)	<ol style="list-style-type: none"> 1. Corporate Results Framework indicator for new homes connected to the grid in rural areas. 2. See the monitoring and evaluation plan. 3. Results are provisional and will be adjusted at the launch workshop.

¹ The results are provisional since they are based on desk reviews and similar projects that the executing agency recently completed. The values for the sample works will be verified once travel restrictions are lifted after the COVID-19 pandemic ends. The works that are not included in the sample will be added at the program's launch workshop once the loan's eligibility is approved.

² The baseline year is the year the Census was prepared (2018). The final target factors in population growth and projected growth over a seven-year period (five years for program execution; plus one for the year that has passed since the baseline year and one additional year for approval, eligibility, and startup of works).

Indicator	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of operation	Means of verification	Comments
Disaggregation of the specific development objective										
Indigenous households in rural areas, newly connected to the electricity service	Number	0	0	4,160	4,369	9,444	13,234	31,207	Official report from INDE	
Households in rural areas with women heads of household, newly connected to the electricity service	Number	0	0	924	970	2,098	2,940	6,932	Official report from INDE	
Households in rural areas whose members include persons with disabilities, newly connected to the electricity service	Number	0	0	735	772	1,669	2,339	5,515	Official report from INDE	

Outputs

Indicator	Unit of measure	Baseline	Year 1	Year 2	Year 3	Year 4	Year 5	End of operation	Means of verification	Comments
Sole component 1: Construction of medium- and low-voltage grids										
New medium- and low-voltage lines built	Kilometers	0	0	395	415	897	1,257	2,964	Official report from INDE	

FIDUCIARY AGREEMENTS AND REQUIREMENTS

Country: Republic of Guatemala
Name: Program for Rural Electrification Infrastructure (GU-L1171)
Executing agency: Instituto Nacional de Electrificación [National Electrification Institute] (INDE)
Prepared by: Marcela Hidrovo and Rodrigo Castro (FMP/CGU)

I. EXECUTIVE SUMMARY

- 1.1 The fiduciary agreements on procurement and financial management for the program take into account: (i) the fiduciary context of the country; and (ii) the institutional capacity assessment of INDE and the associated assessment of fiduciary risks.

II. FIDUCIARY CONTEXT OF THE COUNTRY

- 2.1 **Country procurement system.** Guatemala's procurement system has been built upon the framework established by Decree 57-92 of 27 October 1992, the "Public Procurement Act."¹ The lead agency of this system is the Ministry of Public Finance (MINFIN), which acts through the Public Procurement Office. Public procurement processes are carried out using the GUATECOMPRAS public procurement information system. Pursuant to the act establishing INDE, the institute is governed by its Rules on Procurement and Transfers, which were approved in Minutes 9-2013 of its board of directors from 5 March 2013.
- 2.2 **Financial management system.** Guatemala's public financial management system consists of the Integrated Financial Management System (SIAF) and the Government Audit System (SAG). The SIAF is comprised of public budget, government accounting, national treasury, public credit, and procurement subsystems. The lead agency is MINFIN, which acts through its Budget, Accounting, Treasury, Public Credit, and Procurement Regulations offices, respectively. The SAG is comprised of a government audit system, whose lead agency is the Office of the Comptroller General.

III. FIDUCIARY CONTEXT OF THE EXECUTING AGENCY

- 3.1 The borrower will be the Republic of Guatemala, and the executing agency will be the National Electrification Institute (INDE), acting through a program execution unit (PEU) that will be created. The PEU will report to INDE's General Management. MINFIN and INDE will sign a subsidiary agreement for resource transfer and execution (paragraph 3.1 of the loan proposal).

¹ Amended by Decrees 45-2010, 6 -2011, 9-2015, and 46-2016 of the Congress of the Republic. The regulations for the latest reform were issued via Executive Order 172-2017 of 2 August 2017, the "Regulations for the Public Procurement Act."

- 3.2 The PEU will be responsible to the Bank for program execution. Its primary duties are to: (i) conduct the procurement processes planned for the program pursuant to the provisions of the Bank's procurement policies and supervise their implementation; (ii) maintain the program's financial records; (iii) prepare the following documents: (a) the program execution plan; (b) the annual work plan; (c) the procurement plan and its modifications; (d) semiannual progress reports; and (e) audited financial statements; and (iv) contract consultants to conduct a midterm evaluation and a final evaluation and submit the respective reports to the Bank. The PEU will also be responsible for planning, design, and monitoring processes; project management; administration; management of procurements of works and services and contracting of consultants; supervision of works; program financial management; and environmental and social management. The PEU established for program execution with the approval of the INDE board of directors will include the following staff, at a minimum: a financial management specialist with experience in the financial management of projects financed by multilateral organizations and a procurement specialist, whose job descriptions will be agreed upon with the Bank. These specialists will be reporting officers and will work on the program full-time. These officers will be supported by a procurement management consultant that will be hired using loan proceeds before the bidding process for the first of the program's works is advertised. This consultant will have experience managing procurement processes following the Bank's policies and procedures, based on the terms of reference and profile agreed upon with the Bank. There are no plans at this time to hire financial management support, but if such support is needed during program execution, loan proceeds may be used to procure it.
- 3.3 For financial management, the Financial Management Guidelines for IDB-financed Projects (document OP-273-12 or the current version) and the SIAF regulations will apply. Guatemala's Budget Act regulates the budget, accounting, treasury, and public credit subsystems that are part of the SIAF and operate according to the principle of regulatory centralization and operational decentralization. Under Articles 53 *bis* and 73 of that act, since this loan is to be executed by INDE, it is subject to all budget, accounting, and treasury regulations for this type of institution and must obtain approval from MINFIN for certain procedures.
- 3.4 For procurement, the policies contained in documents GN-2349-15 and GN-2350-15 (or their current versions) will apply, and the GUATECOMPRAS portal will be accepted as an information system for announcing procurement processes (notices, publication of documents, and results).

IV. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS

- 4.1 The institutional capacity assessment found that INDE has a regulatory framework, uses the SIAF's Integrated Accounting System (SICOIN), and has institutional procedures manuals. However, it lacks: (i) experience in the past five years managing projects following the Bank's fiduciary rules; and (ii) personnel with sufficient time available to take on the increased workload involved in program execution. In light of the above, the assessment found that INDE has a medium level of development for executing Bank-financed projects.
- 4.2 This analysis determined that the fiduciary risk is medium and identified the following risks, all rated medium: (i) execution delays, due to the excess workload that

executing program activities and fiduciary processes will entail for INDE staff and a lack of knowledge in applying the Bank's fiduciary procedures. The proposed mitigation measures are: (a) the program execution unit (PEU) created will be staffed with reporting officers who will be responsible for procurement management and financial management and will have experience with financial policies for projects financed by multilateral organizations. The reporting officers will work on the program full-time. They will be supported in procurement management by a consultant experienced in managing procurement processes under IDB policies and regulations, based on the terms of reference and profile agreed upon with the Bank. Loan proceeds may be used to contract the services of the consultant; (b) training workshops on fiduciary matters will be conducted as a refresher; and (c) the Bank's sector team will conduct management workshops to review program planning based on the targets established and the processes to follow; (ii) delays to and/or cancellations of the expected program procurements due to the executing agency not following the provisions of the Bank's policies. The proposed mitigation measures are: (a) the members of the qualification boards will be staff familiar with the program's governance framework and Bank policies; (b) training will be provided to qualification board members, with Bank support; (c) procurement management procedures and workflows will be set out in the program Operating Regulations; and (d) the Bank's sector team will regularly conduct management workshops; (iii) execution delays due to a lack of budget management or financial allocations that are too low or not timely enough to meet the program's financial obligations. The proposed mitigation measures are: (a) a program structure will be created to identify the investment program within the INDE's budget; and (b) there will be comprehensive planning of activities and identification of budgetary needs so allocations can be processed in a timely manner; and (iv) ineffective contract management, to be mitigated by the following measures: (a) the contract management certificate will be implemented as a tool for contract monitoring; (b) the parties responsible for contract management will be established; and (c) procedures will be applied to ensure that accounting entries for goods and works are recorded and to ensure timely payment and transfer of the works built to distribution companies for their operation and maintenance and for service delivery.

V. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF THE LOAN CONTRACT

- 5.1 Special contractual conditions precedent to the first disbursement of the loan proceeds:**
- a. The borrower will have opened a secondary account for each financing source, in U.S. dollars and attached to the treasury single account, at the Bank of Guatemala, into which the loan proceeds from the account referred to in Article 4.01(c) of the General Conditions will be disbursed, and INDE will have opened a specific account at a bank within the national financial system for the purposes of receiving disbursements and making program-related payments.** This condition was prompted by a request from the borrower and is included in all loan contracts so that the Bank of Guatemala can authorize the opening of accounts in U.S. dollars.
 - b. In the financial information system and the internal control structure, which the borrower must have as a condition precedent to the first disbursement of the loan proceeds pursuant to Article 4.01 of the General**

Conditions, specific budgetary codes will have been assigned in the SICOIN so that the loan can be identified by financing source (Ordinary Capital (OC) and Korea Infrastructure Fund (KIF)) pursuant to the borrower's current regulations and in the name of the program as established in the loan contract. This condition is justified to ensure that the country financial management system can be used without the need to keep auxiliary or parallel books in Excel, which will facilitate program execution and financial reporting by financing source.

5.2 Special contractual conditions for execution:

- a. Prior to advertising the procurement process for the first work under the program, the PEU will have hired a procurement consultant with experience with Bank policies, based on the terms of reference and profile agreed upon with the Bank.
- b. The contract will include the following provisions to be observed when national competitive bidding (NCB) is used: (i) participation will not be restricted to suppliers from Bank member countries and suppliers from non-member countries will not be declared ineligible; (ii) no percentages of origin, preference margins, or registration requirements will be established; (iii) considerations to be included in bidding documents; and (iv) the members of the evaluation committees or boards will be familiar with the program governance framework and Bank procurement policies. The program Operating Regulations will establish specific criteria for forming those committees or boards, and the PEU will be responsible for monitoring compliance. This is justified by the need to ensure that eligible countries, firms, and consultants have equal opportunity to compete and to ensure that the procedures set out in Bank policies are applied when evaluating bids and proposals.
- c. Under this operation, the executing agency may sign multiyear-execution contracts for works, goods, and services. To do so, it will manage the applicable annual and multiyear budget appropriations based on the commitments and obligations assumed under the program and pursuant to current regulations. This is justified to allow the executing agency to sign multiyear contracts and prevent the needless splitting up of contracts whose execution exceeds the scope of the fiscal year.
- d. **Use of disbursement modalities established in document OP-273-12 (or the current version).** As a general rule, the advance of funds modality will be used, based on a financial plan in accordance with the real liquidity needs of the program for a period no longer than six months or another reasonable period to be determined during execution, subject to prior fulfillment and documentation of payments made. The following disbursement can be processed once supporting documentation has been provided for 80% of the previous advance. Disbursements will be subject to ex post review.
- e. The exchange rate used for program financial reporting will be the one in effect on the transaction date as reported by the Bank of Guatemala. Earnings generated as a result of exchange differentials or interest may be used to finance expenditures relevant to program objectives.

VI. AGREEMENTS AND REQUIREMENTS FOR PROCUREMENT EXECUTION

- 6.1 **Procurement Execution.** The Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-15) and the Policies for the Selection and Contracting of Consultants Financed by the Inter-American Development Bank (document GN-2350-15) will be applied, as follows:
- Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and nonconsulting services arising under the program and subject to international competitive bidding (ICB) will be executed using the standard bidding documents issued by the Bank. Bidding processes subject to NCB will be executed using documents agreed upon with the Bank. The program sector specialist will be responsible for reviewing the technical specifications of procurements during preparation of the selection processes.
 - Selection and contracting of consultants.** Consulting services contracts generated under the program will be executed using the standard request for proposals issued by or agreed upon with the Bank, based on whether the shortlist is international or national. The program sector specialist will be responsible for reviewing the terms of reference for the contracting of consulting services.
 - Selection of individual consultants.** The contracting of individual consultants will adhere to the provisions set forth in document GN-2350-15, Section V, paragraphs 5.1 to 5.4, pursuant to the methods set out in the procurement plan.
 - Use of the country procurement system.** In document GN-2538-26, the Bank approved the use of the electronic reverse auction system or subsystem up to the shopping threshold for goods and/or nonconsulting services, which may be applied once the required measures for its implementation have been carried out. The GUATECOMPRAS information system is accepted exclusively for advertising purposes.
 - Threshold amounts applicable to the program.** The recommended thresholds for the use of ICB and an international shortlist of consultants are those [established for Guatemala](#).

Table 1. Thresholds (US\$)

International advertising (works)	Shopping (works)	International advertising (goods) ²	Shopping (goods)	International advertising (consulting services)	Shortlist 100% national
≥US\$1,500,000	<US\$150,000	≥US\$150,000	<US\$25,000	≥US\$200,000	<US\$200,000

- 6.2 **Main procurement processes.** The main procurement processes to be financed with resources provided by the Bank under this multiple-works investment loan are works to build medium-voltage electricity grids and the consulting services for supervision of these works. Once the loan is approved, the PEU will be responsible

² Includes nonconsulting services.

for preparing the procurement plan.³ The procurement specialist will help with this plan and ensure that it is appropriate and of the required quality under the Bank's procurement policies, which will require the issuance of an expert opinion.

Table 2. Main procurements

Activity	Selection method	Estimated date of the request for bids	Estimated amount (US\$)
Works			
Construction of works for medium-voltage grid in Barillas (3 distribution lines)	ICB	28-Jun-21	4,028,495
Construction of works for medium-voltage grid in Las Cruces	ICB	28-Jun-21	2,476,534
Construction of works for medium-voltage grid in Poptún, Petén	ICB	28-Jun-21	6,538,050
Construction of works for medium-voltage grid in Cobán	ICB	30-Aug-21	14,429,938
Construction of works for medium-voltage grid of approx. 627 km (to be determined)	ICB	4-Mar-22	20,493,705
Consulting services			
Supervision of works for medium-voltage grid in Barillas (3 distribution lines)	Quality- and cost-based selection (QCBS)	9-Jun-21	402,849
Supervision of works for medium-voltage grid in Las Cruces	QCBS	9-Jun-21	247,653
Supervision of works for medium-voltage grid in Poptún, Petén	QCBS	9-Jun-21	653,805
Supervision of works for medium-voltage grid in Cobán	QCBS	27-Aug-21	1,442,994
Supervision of construction of works for medium-voltage grid of approx. 627 km (to be determined)	QCBS	3-Mar-22	2,049,370
Midterm evaluation	QCBS	Nov. 2023	250,000
Final evaluation	QCBS	Jan. 2026	350,000

(*) To access the 18-month procurement plan, see [link](#).

- 6.3 **Procurement supervision.** The procurement supervision method will be ex ante. Fiduciary supervision visits will be conducted at least every six months based on the program's supervision plan and will include at least one physical inspection visit.⁴
- 6.4 **Records and files.** The PEU will be responsible for maintaining the program files and records, using the formats and procedures agreed upon and set forth in the program Operating Regulations.

³ Documents GN-2349-15 (paragraph 1.18) and GN-2350-15 (paragraph 1.25). The borrower will prepare and, before loan negotiations, furnish to the Bank for its approval, a Procurement Plan acceptable to the Bank for an initial period of at least 18 months.

⁴ Physical inspections verify the existence of the items procured, leaving verification of quality and compliance with specifications to the sector specialist.

VII. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

- 7.1 **Programming and budget.** Guatemala's integrated accounting system (SICOIN) will be used for operational management of the budget. For program execution, a budget unit and a budget program classified as an investment will be created for each source of financing, as well as a multiyear investment program to plan for the budgetary and financial needs for program execution. This will be included in the loan contract as a special contractual condition for execution (see Section V).
- 7.2 **Accounting and information systems.** Program accounting and records will be decentralized and managed by INDE using the SICOIN, which is the sole source of information on the use of program funds and can be used to show a breakdown of funds by source of financing. The existing accounts and expense structure will be used, and there will be no special chart of accounts. Supporting documentation for payment transactions will remain on file at INDE, which will be responsible for keeping records and making payments charged to the program. The transaction amounts will be converted using the exchange rate reported by the Bank of Guatemala on the date of the transaction.
- 7.3 **Disbursements and cash flow.** The treasury single account mechanism is acceptable for managing the Bank-financed resources. The resources received as advances of funds will be consistently deposited into two secondary U.S. dollar accounts under the single treasury account, one for each source (OC and KIF). INDE will open a specific account at a bank in the national financial system for receiving disbursements and making payments to suppliers, beneficiaries, and contractors. Since the program has two financing sources (OC and KIF), they will be handled as subloans.
- 7.4 The Bank will disburse funds from each financing source using advances of funds or any other modality established in document OP-273-12 or its current version. Advances of funds will be made based on a financial plan generated from the multiyear execution plan reflecting real payment needs based on commitments already made for a period no longer than six months, provided that the payments are made on time and properly documented. Subsequent disbursements can be processed once supporting documentation has been submitted for 80% of the prior advances from each source. If necessary, use of the accommodations established in document OP-273-12 may be considered.
- 7.5 **Internal control and internal audit.** The country's internal audit subsystem will not be used.
- 7.6 **External control and reporting.** The program financial statements will be audited on an annual basis by an external audit firm eligible for the Bank in Guatemala or by the Office of the Comptroller General in accordance with its manual on auditing special financial statements for IDB-financed projects. The terms of reference will be previously agreed upon with the Bank. The audit firm will be hired no more than 120 days before the end of the year to be audited. It is strongly recommended that only one hiring process be carried out for the entirety of program execution until program end. During execution, the audited financial statements will be submitted annually, within 120 days after the closing date of each fiscal year or, in the case of the final audit, the date of the last disbursement. In addition, the IDB may

request audited or unaudited financial reports related to the program whenever deemed necessary.

- 7.7 Pursuant to the current access to information and disclosure policy, the program's audited reports will be published in the Bank's systems.
- 7.8 **Financial supervision.** Financial management will be supervised by reviewing budget, payment, and accounting information in the SICOIN and the multiyear execution plan. In addition, at least one financial fiduciary oversight visit is planned for each year, and the unaudited financial information prepared by the executing agency will be reviewed.

PROGRAM FOR RURAL ELECTRIFICATION INFRASTRUCTURE (PIER)

GU-L1171

CERTIFICATION

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the referenced operation¹ will be financed through:

Funding Source	Fund Code	Currency	Amount Up to
Korea Infrastructure Development Co-Financing Facility for Latin America and the Caribbean	KIF	USD	60,000,000

Certified by:Original SignedOctober 8, 2020

Maria Fernanda GarcíaDate

Chief

Grants and Co-Financing Management Unit

ORP/GCM

¹ In case of Project Specific Grants (PSG) or Financial Intermediary Fund (FIF), the availability of resources is contingent upon the signature of the agreement between the Donor and the Bank and the receipt of the resources.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/20

Guatemala. Loan ____/OC-GU to the Republic of Guatemala
Program for Rural Electrification Infrastructure (PIER)

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 the Program for Rural Electrification Infrastructure (PIER). Such financing will be for the amount of up to US\$60,000,000 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 ____ 2020)

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/20

Guatemala. Loan ____/KI-GU to the Republic of Guatemala
Program for Rural Electrification Infrastructure (PIER)

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, acting as the Administrator of the Korea Infrastructure Development Co-financing Facility for Latin America and the Caribbean ("the Facility"), 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 the Program for Rural Electrification Infrastructure (PIER). Such financing will be for an amount of up to US\$60,000,000 from the resources of the Facility, 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 ____ 2020)