

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **HONDURAS**

### **REMOTE AREA RURAL ELECTRIFICATION PROGRAM**

**(HO-G1247)**

#### **GRANT PROPOSAL**

This document was prepared by the project team consisting of: Carlos Jácome (ENE/CHO), Project Team Leader; Natacha Marzolf (INE/ENE), Alternate Project Team Leader; Wilkferg Vanegas, Stephanie Suber, Cecilia Seminario, and Juan Carlos Cárdenas (INE/ENE); Claudio Alatorre (CSD/CCS); Cristina Landazuri-Levey (LEG/SGO); Roberto Leal (VPS/ESG); Nadia Rauschert (FMP/CHO); Maria Cecilia del Puerto (FMP/CHO); and Astrid Mejía (ENE/CHO).

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## CONTENTS

### PROJECT SUMMARY

I.	DESCRIPTION AND RESULTS MONITORING .....	1
A.	Background, problem addressed, and rationale .....	1
B.	Objectives, components, and cost .....	11
C.	Key results indicators .....	13
II.	FINANCING STRUCTURE AND MAIN RISKS .....	15
A.	Financing instruments .....	15
B.	Environmental and social risks .....	16
C.	Fiduciary risks .....	16
D.	Other risks and key project issues .....	17
III.	IMPLEMENTATION AND MANAGEMENT PLAN .....	17
A.	Summary of implementation arrangements .....	17
B.	Summary of arrangements for monitoring results .....	19

## APPENDIXES

Proposed resolution

ANNEXES	
<b>PRINTED ANNEXES</b>	
Annex I	Summary Development Effectiveness Matrix
Annex II	Results Matrix
Annex III	Fiduciary Agreements and Requirements

  

LINKS	
<b>REQUIRED</b>	
1.	<a href="#">Multiyear execution plan and annual work plan</a>
2.	<a href="#">Monitoring and evaluation plan</a>
3.	<a href="#">Environmental and Social Management Report</a>
4.	<a href="#">Procurement plan</a>
<b>OPTIONAL</b>	
1.	<a href="#">Project economic analysis</a>
2.	<a href="#">Environmental and social analysis - Environmental and Social Management Plan (ESMP)</a>
3.	<a href="#">Analysis of compliance with the Public Utilities Policy</a>
4.	<a href="#">Technical profile: Stand-alone Brus Laguna project</a>
5.	<a href="#">Technical profile: Stand-alone Guanaja Island project</a>
6.	<a href="#">Stand-alone systems - Access to rural communities in southern Honduras</a>
7.	<a href="#">Beneficiary selection methodology</a>
8.	<a href="#">Scaling Up Renewable Energy Program in Low Income Countries (SREP): Investment Plan for Honduras</a>
9.	<a href="#">Safeguard policy filter</a> and <a href="#">safeguard screening form</a>

## ABBREVIATIONS

CIF	Climate Investment Funds
ENEE	Empresa Nacional de Energía Eléctrica [National Electric Power Company]
ESMP	Environmental and Social Management Plan
FOSODE	Fondo Social de Desarrollo Eléctrico [Social Fund for Electricity Development]
KSP	Knowledge Sharing Program
kWh	Kilowatt hour
LGIE	Ley General de la Industria Eléctrica [Electricity Industry Act]
PCU	Program Coordination Unit
SCX	Strategic Climate Fund
SIAFI	Integrated Financial Administration System
SIN	Sistema Interconectado Nacional [National Interconnected System]
SREP	Scaling Up Renewable Energy in Low Income Countries Program
UEPEX	Módulo de Unidades Ejecutoras de Proyectos Externos [Module for the Executing Units of Externally Financed Projects]

**PROJECT SUMMARY**  
**HONDURAS**  
**REMOTE AREA RURAL ELECTRIFICATION PROGRAM**  
**(HO-G1247)**

Financial Terms and Conditions				
<b>Beneficiary:</b> Honduras			<b>Grant</b>	
<b>Executing agency:</b> National Electric Power Company (ENEE)			<b>Disbursement period:</b>	4 years
<b>Source</b>	<b>Amount (US\$)</b>	<b>%</b>		
IDB (Strategic Climate Fund (SCX)) <sup>(a)</sup>	6,420,000	100	<b>Currency:</b>	U.S. Dollars
<b>Total:</b>	6,420,000	100		
Project at a Glance				
<p><b>Project objective/description:</b> The program's general objective is to support the expansion of electricity coverage in Honduras by implementing projects involving decentralized renewable energy generation with distribution through mini-grids. The specific objectives are to (i) increase electricity access in unserved remote communities; (ii) reduce electricity costs in communities where supply is based on mini-grids with diesel generation; and (iii) develop sector institutional capacities for the design, construction, operation, and maintenance of these projects.</p>				
<p><b>Special contractual conditions precedent to the first disbursement:</b> (i) approval and entry into force of the program Operating Manual, as agreed with the Bank (paragraph 3.5), and (ii) see Annex III for other contractual conditions precedent to the first disbursement.</p>				
<p><b>Special contractual conditions of execution:</b> (i) the rate schedule for stand-alone systems using renewable energy will be approved by the Electricity Regulatory Commission prior to awarding the first works under Component 1 (paragraph 3.4); and (ii) see Annex B of the <a href="#">Environmental and Social Management Report</a> for environmental and social conditions.</p>				
<b>Exceptions to Bank policy:</b> None				
Strategic Alignment				
<b>Challenges:</b> <sup>(b)</sup>	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>	
<b>Crosscutting themes:</b> <sup>(d)</sup>	GD <input type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>	

<sup>(a)</sup> Scaling Up Renewable Energy Program in Low Income Countries (SREP). These funds will be provided on a grant basis. In February 2011 (document GN-2604-3), the Board of Executive Directors authorized the Bank to act as an implementing entity for the Climate Investment Funds (CIF). To this end, it signed a Financial Procedures Agreement with the World Bank (CIF administrator) on 17 February 2011, and the SCX was created in the Bank.

<sup>(b)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(c)</sup> 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 addressed, and rationale

- 1.1 The Sustainable Energy for All (SEforALL) initiative is a strategic partnership between governments, the private sector, and civil society. Established by the Secretary-General of the United Nations in 2011, SEforALL aims to achieve three objectives by 2030: (i) ensuring universal access to modern energy services;<sup>1</sup> (ii) doubling the share of renewable energy in the global energy matrix; and (iii) doubling the global rate of improvement in energy efficiency.
- 1.2 The Latin American Energy Organization estimated coverage of 97% in Latin America and the Caribbean for 2017.<sup>2</sup> The 3% of the population (19.2 million people) who lacked electricity services were concentrated in eight countries, one of which was Honduras. According to 2017 statistics from the Economic Commission for Latin America and the Caribbean, electrification rates for countries in the region were as follows: Costa Rica, 99.4%; El Salvador, 96.6%; Guatemala, 92.2%; Honduras, 77.2%; Nicaragua 94%; Panama 92.9%; and the Dominican Republic, 97.3%.
- 1.3 **Electricity coverage in Honduras.** The significant progress made in the region has been the result of energy policies designed to expand access to electricity. Until mid-2015, Honduras reported a coverage rate of 93% due to the outdated information used by the planning department of the National Electric Power Company (ENEE) in its calculations. Once the data from the 2013 Population and Housing Census were published, the ENEE updated its information and found that the ENEE grid's electricity coverage was in fact 74%.<sup>3</sup> The latest coverage report by the United Nations Development Programme<sup>4</sup> shows that Honduras has the second lowest rate of electricity coverage in Latin America and the Caribbean and the fourth highest use of firewood for cooking purposes.<sup>5</sup>

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<sup>1</sup> This is part of the United Nations' Sustainable Development Goals. Modern energy services include supplying electricity and clean fuels for cooking (not solid fuels such as coal or firewood).

<sup>2</sup> Latin American Energy Organization, Latin America and the Caribbean Energy Information System, IDB. Energy Statistics Yearbook 2017.

<sup>3</sup> The calculation method includes systems that have grid access or access it on similar terms. Stand-alone systems powered by independent generators are not included. If private, engine-powered, and solar panel systems are included, national coverage is 81%.

<sup>4</sup> Rivas Salvador - *Análisis de la situación de acceso de energía para América Latina*. UNDP Regional Center for Latin America, July 2016.

<sup>5</sup> According to data from the 2013 Population and Housing Census, firewood is used for cooking in 55% of households nationwide and 89% of households in rural areas.

- 1.4 The ENEE's coverage index (74% in 2015)<sup>6</sup> shows major disparities at the national level. The country's rural population—estimated at 46%—has an average coverage rate of 64.4%, compared to a rate of 81.3% in urban areas. The departments with the lowest electricity coverage rates are Santa Bárbara; Lempira; La Paz; Choluteca; Olancho, where coverage ranges from 50% to 70%; and Gracias a Dios (part of La Mosquitia region),<sup>7</sup> where stand-alone systems support a coverage rate of 45%. Municipios in these departments exhibit high levels of poverty.<sup>8</sup> The ENEE estimates that an overall investment of approximately US\$712.5 million would be required to achieve universal coverage (based on an annual growth of 4%).<sup>9</sup>
- 1.5 ENEE reports<sup>10</sup> indicate that the failure to expand coverage can be explained by a lack of economic viability due to the long distances between the outer points of the grid and the unserved communities. Other factors include the degree of remoteness, topographic complexity, and the dispersion of housing in communities lacking electricity services. In addition, the ENEE's fragile financial situation, the country's fiscal problems, and the lack of planning for coverage expansion have all led to a failure to develop investment programs to increase coverage.
- 1.6 As a result of flawed national figures on energy access, the Government of Honduras did not prioritize an access policy, and there were no government-level institutional arrangements for implementing one. Over the last ten years, investments totaling US\$130 million were approved for rural electrification projects (paragraph 1.20), primarily through grid extensions<sup>11</sup> instead of the inclusion of mini-grids. Due to financial constraints at the ENEE (the entity responsible for expanding and operating the transmission network), grid extension programs were carried out without investing in expanding transmission. According to ENEE estimates, transmission investments in excess of 2% of GDP are needed.<sup>12</sup> The lack of an adequate plan for grid expansion has

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<sup>6</sup> Based on the results of the 2013 census, the ENEE updated its coverage figures in the [2015 Coverage Report](#). This does not include residential clients with informal connections to the National Interconnected System (SIN). The ENEE continues to review its calculation method to support satisfactory planning in the electrification process, reducing inconsistencies with respect to the official socioeconomic data at the national level. Through technical cooperation agreement ATN/OC-16427-HO, the Bank will finance the updating of the baseline, definition of the standardized method of calculation, and support for planning the expansion in coverage, to help the government establish a standardized method of calculating coverage. This technical cooperation will also help the operator, Consorcio Energía Eléctrica de Honduras, update its customer database, which is required under its mandate of reducing losses by installing electricity meters to connect informal users.

<sup>7</sup> La Mosquitia is the second largest tropical forest in the Americas after the Amazon.

<sup>8</sup> Some municipios in these departments are among the territories prioritized under the Plan of the Alliance for Prosperity in the Northern Triangle.

<sup>9</sup> ENEE, Planning Department, Informe de cobertura eléctrica, 2015.

<sup>10</sup> Informe de Cobertura de Energía Eléctrica de Honduras, ENEE Department of Business Planning, Change, and Innovation.

<sup>11</sup> Increasing coverage to the detriment of service quality.

<sup>12</sup> On 5 September 2018, the IDB Board approved a US\$155 million loan to support the National Transmission Program (4598/BL-HO, 4599/SX-HO).

led to an increase in the percentage of technical losses in the National Interconnected System (SIN).<sup>13</sup>

- 1.7 Structure of the electricity sector. The ENEE is the most important actor in the Honduran electricity sector. This public company owns almost all transmission and distribution systems and 19% of installed generation capacity. The ENEE covers approximately 94% of residential and commercial users currently with access to electricity services. The remaining 6% are served by municipal and private companies. Under the Electricity Industry Act (LGIE), which was approved in 2014 and launched the process of electricity sector reform, the ENEE is responsible for administering the Social Fund for Electricity Development (FOSODE). This fund finances socially beneficial electrification studies and works. Prior to enactment of the LGIE, the ENEE unit that is now FOSODE<sup>14</sup> was responsible for developing rural electrification projects through grid extensions. Due to its lack of experience in planning, designing, and managing individual or mini-grid renewable energy systems for rural electrification, FOSODE needs to strengthen its capacities so that it can support government efforts to increase electricity coverage using technically and economically viable solutions that do not involve extending the grid.
- 1.8 As part of the reform process, a new institutional framework was created for the electricity sector involving the Department of Energy, which is responsible for formulating energy policy,<sup>15</sup> a regulatory body, and a system operator. The role of each institution is clearly defined, and resources have been allocated to support their operations. The ENEE's financial situation improved from a deficit of 1.8% of GDP in 2013 to one of 0.6% in December 2017, and private sector participation in the distribution system was introduced to reduce electricity losses. Honduras's ability to participate actively in the Regional Electricity Market has been strengthened, with energy purchases rising from 1.4% in 2013 to 3.7% in 2017. Progress has also been made with respect to diversification of the electricity generation matrix, increasing the renewable energy share from 12% in 2013 to 38% in 2017.
- 1.9 Methodology for selecting the target area. The municipios of Brus Laguna, Guanaja, Concepción de María, and El Corpus were selected based on the multicriteria selection methodology described in the [beneficiary selection methodology](#) (optional link 7). This methodology takes into account measures of poverty, electricity access, high energy supply costs, existing project development studies, opportunities for private sector enterprise, the absence of development partners, the Bank's presence in a given area (due to project execution), and the availability of resources.<sup>16</sup>

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<sup>13</sup> According to the latest ENEE figures, total electricity losses in the country stood at 27.23% as of December 2017.

<sup>14</sup> As part of its Rural Infrastructure Program, executed by the Honduran Social Investment Fund, FOSODE supervised the construction of rural electrification projects using photovoltaic solar systems.

<sup>15</sup> The Department of Energy's current structure includes an office responsible for analyzing the expansion of the electricity system and electricity coverage.

<sup>16</sup> When applying this methodology, the factor that had the most bearing on the final selection of the beneficiary municipios was the availability of resources (US\$6.42 million) to finance the electrification investment works needed in those territories to produce the expected outcomes of the operation.



- 1.10 The department of Gracias a Dios has the highest levels of poverty and vulnerability. Estimates indicate that more than 69% of its population lives below the poverty line, with 40% living in extreme poverty.<sup>17</sup> At the national level, the poverty rate is 60.9%, with extreme poverty at 38.4%. Coverage by companies providing electricity services in the department is 19.3%. Gracias a Dios ranks second to last out of 18 departments with respect to the Human Development Index, and it faces serious problems of citizen security. According to the 2013 census, the department's population was 94,450. It is the second largest department in the country, and it predominantly consists of heavily forested territories that are only accessible by air. Its main economic activities are agriculture, fishing, public administration, and trade. The department is ethnically diverse, and the Miskito and Pech are the main ethnic groups.
- 1.11 Due to its geographic isolation, the department's requirements in terms of public services are substantial. While the unmet basic needs index is 53.48% countrywide, it is 83.5% in Brus Laguna, where the population is mostly Miskito (98%). No public or private companies supply electricity in Brus Laguna. Only 9.3% of its population has access to electricity produced using individual gasoline engines. Getting to Brus Laguna involves a two-hour river journey from Puerto Lempira. Puerto Lempira is the departmental capital and the only place where electricity is provided by private companies. Residential rates are US\$0.65 per kilowatt hour (kWh),<sup>18</sup> higher than the national average of US\$0.14. A significant proportion of the population cannot access electricity services because of their precarious economic circumstances. This hinders social development and productive activities such as fishing.<sup>19</sup> Although fishing is the main economic activity in the area, it cannot be effectively exploited due to the inability to maintain a cold chain, which limits marketing possibilities.
- 1.12 The Bay Islands have the second-highest electricity prices in the country. The average price charged by companies supplying electricity ranges from US\$0.50 to US\$0.60 per kWh.<sup>20</sup> The islands are the country's main tourist attraction due to their rich terrestrial ecosystem and their even more significant marine ecosystem, which forms part of the world's second largest coral reef. They have a total population of 43,575. According to the 2013 census, the Bay Islands are experiencing the highest demographic growth nationwide, which is the result of better work opportunities and a better security situation. The high cost of electricity and quality issues in its supply hinder tourism development in the islands, as reported in the Diagnostic Assessment of the Honduran Tourism Sector.<sup>21</sup> These issues also adversely affect basic services whose processing techniques require energy, such as potable water supplies and wastewater treatment. The high cost of energy for drinking and wastewater treatment has led

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<sup>17</sup> According to the updated poverty map.

<sup>18</sup> Given the current low prices for oil derivatives, electricity is generated by diesel-fueled internal combustion engines.

<sup>19</sup> The lack of electricity for refrigeration has been identified as a key hurdle by the Resilience of the Blue Economy and the Coastal Ecosystem in Northern Honduras "MiPesca" operation (ATN/NV-15749-HO; ATN/NV-15750-HO), which aims to support the development of the fishing industry in La Mosquitia.

<sup>20</sup> Based on an oil price of US\$65 per barrel. Electricity is generated by diesel-fueled internal combustion engines.

<sup>21</sup> Ramirez, Yanu and Erazo, Benjamín. *Informe del diagnóstico del sector turismo en Honduras*. IDB, September 2016.

some municipios to reduce or suspend treatment plant operations, which poses a direct hazard to the population, bodies of water, and the coral reef (the Bay Islands' main tourist attraction).

- 1.13 Guanaja Island is the second most populated of the Bay Islands. Sixty-three percent of its 5,445 inhabitants are English-speaking Afro-descendants. Its unmet basic needs index is 37.28%. Its population is low income and concentrated on Bonaca cay. Electricity coverage in Guanaja is 79%. The island's primary economic activity is fishing, followed by trade, construction, and tourism. Guanaja has the least tourism in the Bay Islands, but there is considerable tourism potential due to its scenic landscape and natural resources. The island was a top-notch tourism destination before it was battered by Hurricane Mitch, which depressed its economic development. Electricity costs on the island are high, at US\$0.52 per kilowatt hour. Its sole private operator uses diesel engines to generate electricity and has an operating contract that ended in January 2018.<sup>22</sup> Guanaja is the only island with sources of fresh water, but it faces serious difficulties in distributing it and in treating wastewater. These energy-intensive activities are rarely undertaken due to the high cost of power. As a result, wastewater is not treated, affecting the quality of seawater and diving-related tourism. During the social consultation and participation process conducted as part of the preparation of the [Environmental and Social Management Report](#), participants commented that electricity bills were at least 30% of family incomes.
- 1.14 In the department of Choluteca, the geographically dispersed settlements and complex topography of the rural municipios of El Corpus (24,645 residents) and Concepción de María (26,874 residents) make extending the distribution network not economically viable. These municipios are part of the Dry Corridor.<sup>23</sup> Electricity coverage in the department is 77.1%. In El Corpus, agriculture is the primary economic activity, and mining also takes place. Poverty levels in El Corpus and Concepción de María are high, at 72.5% and 73.7%, respectively, with extreme poverty levels of 61.6% and 63.8%, respectively. Although the SIN reaches Choluteca, distribution networks have not been extended due to the distances between homes, which render this option unfeasible (connection costs exceed US\$8,000 per user). Electricity coverage is 41% in the municipio of El Corpus and 43% in Concepción de María. Each household spends the equivalent of 300 lempiras per month on lighting and charging cell phones.
- 1.15 **Relationship between poverty and well-being and electricity access.** The link between poverty and well-being and electricity access is widely acknowledged in the literature.<sup>24</sup> An impact evaluation conducted in Ethiopia<sup>25</sup> concludes that electricity access has a significant impact on the likelihood that a

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<sup>22</sup> Under the LGIE, operating contracts should be subject to international competitive bidding. The municipio has decided to extend the operations of the operator in Guanaja until the contract is awarded in conformity with the provisions of the LGIE.

<sup>23</sup> Geographical region of the country with ongoing drought issues that affect agricultural productivity.

<sup>24</sup> Energy Sector Framework Document. Energy Division - document GN-2830-3. IDB (2015). Section II.

<sup>25</sup> Tegene G., Berhe, G., and Teklemariam, D. (2015), Impact of Rural Electrification on Poverty Reduction Evidence from Rural Districts of Tigray, Northern Ethiopia, Journal of Business Management & Social Sciences Research, Volume 4, No.1.

household will be able escape poverty. Khandker et al<sup>26</sup> conclude that household electrification can raise income and expenditure by as much as 28% and 23%, respectively. Barron and Torero<sup>27</sup> find that adult men dedicate less time to leisure and agricultural work and more on other work activities, thus increasing their incomes. A joint report by the IDB and the United Nations Development Programme on the benefits of sustainable energy access in Latin America and the Caribbean<sup>28</sup> discusses the findings of the impact evaluation of a project that paves the way for development in the community of Waspam, in the northern Caribbean coastal region of Nicaragua. This electrification project has brought improvements in education, health, and nutrition.

- 1.16 **Experience in the country.** With financial support from international development partners and the central government, Honduras has executed several rural electrification projects in remote areas using renewable energy. These include: the solar energy based rural electrification program executed by the Honduran Social Investment Fund; the EnDeV–Energizing Development program;<sup>29</sup> projects financed by Nordic Development Fund; the project to provide renewable energy solutions for rural zones in Central America, financed by the IDB Group’s Opportunities for the Majority sector;<sup>30</sup> the recent solar power based rural electrification project financed by the Korea Eximbank, which focuses on addressing the needs of the western part of the country; and projects financed by the IDB Group’s Multilateral Investment Fund (MIF). These projects have highlighted the need to strengthen the ability of local staff to operate and maintain the systems—particularly women involved in managing electricity boards.<sup>31</sup> Lastly, the operator on the island of Utila<sup>32</sup> in the department of the Bay Islands uses a thermal generation plant supplemented by photovoltaic power installed on the roofs of the generation plant. Although photovoltaic power makes only a small contribution, the operator has demonstrated the project’s technical and financial viability. Over the past two years, the implementation of various projects nationwide and the significant development in photovoltaic solar energy

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<sup>26</sup> Khandker S., Barnes D.F., and Samad H. (2013), *Welfare Impacts of Rural Electrification: A Panel Data Analysis from Vietnam*, Economic Development and Cultural Change, Vol. 61, No. 3, pp. 659-692.

<sup>27</sup> Barron M. and Torero M. (2014), *Short Term Effects of Household Electrification: Experimental Evidence from Northern El Salvador*.

<sup>28</sup> IDB – UNDP joint report on energy access, meeting challenges, measuring progress. The benefits of sustainable energy access in Latin America and the Caribbean. 2018.

<sup>29</sup> Program financed with funds from Holland, Germany, Norway, the United Kingdom, Switzerland, and Sweden. Executed by the Forest Conservation Institute, the Honduran Department of Planning, and nongovernmental organizations in two phases between 2006 and 2018.

<sup>30</sup> The borrower for this regional operation in Central America was the Honduras-based Fundación Covelo. Honduras was an important participant in the project.

<sup>31</sup> Operation GRT/WS-12850-HO by the Water and Sanitation Division (INE/WSA) yielded successful experiences in the management of water boards in the country, led by groups of women, for the commercial and operational management of water systems. No similar experiences exist in the electricity sector. The departments of Choluteca and Gracias a Dios are also characterized by high numbers of women in households and a high rate of unemployment. According to the 2013 National Demographics and Health Survey, unemployment among the economically active female population in Choluteca and Gracias a Dios was 49.7% and 45.4% respectively, while those employed were concentrated in activities with high levels of informality, such as agriculture and unskilled labor.

<sup>32</sup> In Utila, the private operator implemented a metering system based on prepayment, thereby ensuring that services are paid for. The program aims to replicate this metering system.

projects have led to growth in the national market for the supply, installation, and operation of this technology.

- 1.17 The outcomes of these projects reveal the importance of: (i) including beneficiaries in project development; (ii) selecting appropriate technology for generation and its use; (iii) project sustainability, particularly in relation to the planning and management of resources for operating systems and maintaining assets; (iv) taking logistical complexities into account in commercial metering and collection tasks; and (v) supplementing the execution of electricity access projects with programs to educate and promote efficient energy use.
- 1.18 To date, Honduras has no experience with using solar-powered mini-grids in remote community electrification projects. This approach has been implemented in a number of places in the region, and its main advantage is that generation, operation, and maintenance are consolidated in one location. Project sustainability is supported by photovoltaic generation, energy storage, and conversion and control of energy distribution in local distribution networks. The recent reduction in the cost of photovoltaic technology<sup>33</sup> and energy storage makes photovoltaic power a competitive alternative to thermal generation using diesel-powered engines,<sup>34</sup> particularly given the increase in oil prices over the last year.
- 1.19 **Sector knowledge.** The program will take into account existing knowledge about the relationship between poverty and electricity access (paragraph 1.15), as well as the information generated under the “Renewable Energy Development in the Bay Islands” technical cooperation operation (ATN/NV-14824-HO) and outputs generated under the MIF-financed “Resilience of the Blue Economy and the Coastal Ecosystem in Northern Honduras (MiPesca)” project (EQU/MS-15765-HO, EQU/MS-15766-HO; ATN/NV-15749-HO, ATN/NV-15750-HO).
- 1.20 As part of the drive to strengthen the capabilities of stakeholders involved in the planning and development of renewable energy projects in remote areas, in October 2016 an intraregional technical-cooperation operation was approved for the Exchange of Experiences in Introducing Renewable Energies in Island Systems (ATN/OC-15734-HO). The exchange of experiences took place in Ecuador's Galapagos Islands, where the Zero Fossil Fuels program is being executed, using mini-grid solutions and solar, wind, and biofuel-based renewable energies.
- 1.21 **Lessons learned.** To ensure program sustainability, consideration was given to the following lessons learned from intraregional technical-cooperation operation ATN-OC-15734-HO and similar Bank-financed projects at the regional level (3059/OC-SU and GRT/NV-14258-BO): (i) instead of a centralized approach, actively engage local authorities in project design and execution to improve project supervision and monitoring; (ii) actively engage operators in monitoring from the start of project execution; (iii) encourage the participation of distribution companies working in the operators' area of influence for support purposes; (iv) facilitate rural user connections by financing connection and meter installation by operators; and (v) promote the use of electricity for productive purposes under

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<sup>33</sup> BSW-Solar, PV Price Index.

<sup>34</sup> Grid Revolution with Distributed Generation and Energy Storage; Parity Report on Photo-voltaic Systems and Energy Storage, Seoul National University.

the program in order to enhance program benefits. Lessons (i), (ii), (iv), and (v) will be used in the program due to their impact on sustainability.

- 1.22 The “Support for the Sustainable Development of Renewable Energies in Honduras” technical cooperation operation (ATN/SX-16689) was approved by the Bank and financed with SREP resources. It is aimed at fostering policy and regulatory frameworks that favor the long-term sustainability of rural electrification and renewable energy projects (both stand-alone and interconnected systems). This technical cooperation operation will provide inputs to allow the Electricity Regulatory Commission to update rate schedules<sup>35</sup> for stand-alone systems (mini-grids and individual systems) and to support the incorporation of secondary legislation into the existing legal framework where necessary. The U.S. Trade and Development Agency is also providing support to the Government of Honduras for the exchange of experiences regarding regulatory arrangements to foster the use of micro-grids. The implementation of a rate schedule that would ensure sustainability does not envisage financial contributions from the executing agency.<sup>36</sup>
- 1.23 The Bank has extensive knowledge of the Honduran electricity sector as a result of having supported electricity generation, transmission, and distribution since 1980. The ENEE is currently executing two Bank-supported transmission-related operations: Support for the Integration of Honduras in the Regional Electricity Market (loan 3103/BL-HO), and the Cañaveral-Río Lindo Hydropower Complex Rehabilitation and Upgrading Project (loan 3435/BL-HO). The Bank also financed the “Puebla-Panama Plan – Support for Rural Electrification and the Energy Sector” operation (loan 1584/SF-HO), which has already been executed and completed. The Bank is also supporting the structural reform process in the sector by means of technical assistance operation and a programmatic series of three policy-based loans, the last of which was approved in December 2017. Bank financing has contributed to the gains described above (paragraph 1.8). The Bank is of the opinion that significant progress has been made in the sector reform process.
- 1.24 Within the program framework and its area of influence (paragraphs 1.10 and 1.14), the Bank has been executing technical cooperation operations<sup>37</sup> that will serve as inputs into activities under this operation. The Bank is providing ad-hoc technical assistance to the ENEE to improve the operational efficiency of the sector, with ongoing dialogue and specialized technical assistance for studies to strengthen sector planning and financial capacity. The Bank coordinates its activities with other development partners through the energy roundtable of the

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<sup>35</sup> The current rate schedule, which is based on thermal generation systems, factors in investments in generation, transformation, and distribution, as well operation and maintenance charges. Within the latter category, the cost of diesel fuel accounts for a significant proportion of the retail price: more than 70% at 2017 oil prices.

<sup>36</sup> It should be noted that there is currently a rate schedule in force for stand-alone systems with fossil fuel power plants. This operation will support the development and implementation of rate schedules that also include a renewable generation component to encourage increased access by means of renewable energy generation systems.

<sup>37</sup> Project supervision will be supported under Component 2 of the “Support to the Strategic Plan for Universal Access to Electricity” technical cooperation operation (ATN/OC-16427-HO), as well as under ATN/SX-16689 (paragraph 1.22).

G16 international cooperation group in Honduras, with a view to boosting synergies and avoiding overlap.<sup>38</sup>

- 1.25 Under the LGIE, the government allocated L 15 million to FOSODE, which will also receive an estimated annual revenue of US\$9.5 million from the distribution company's revenues. Both are sources of finance for rural electrification projects. The resources under this program complement the government's rural electrification efforts and will be channeled through the Bank for the planned activities. They will be a point of departure for the ENEE in its objective of implementing actions to support rural electrification in remote locations.
- 1.26 **The country's strategy in the sector.** The Government of Honduras, together with the ENEE, has made substantial efforts to promote electrification in the country. Although there are several rural electrification initiatives (paragraph 1.16), the inclusion of regions such as the Bay Islands and La Mosquitia and areas such as the ones selected in Choluteca is hindered by their remoteness and high logistics costs.
- 1.27 **Program strategy.** To address the challenges of access in rural electrification, the ENEE analyzed alternative technologies that have been proven to be feasible in remote locations, based on the results of the Knowledge Sharing Program (KSP)<sup>39</sup> and the technical cooperation operations to evaluate renewable resources in the Bay Islands. This analysis concluded that generation solutions based on renewable photovoltaic sources that incorporate storage systems and micro-grid distribution are the best approach, in terms of investment costs per kilowatt-hour generated, integrated operation with thermal generation systems, the technical viability of installation in remote locations, and sustainability. The criteria described above (paragraph 1.9) were used to select the beneficiary communities.
- 1.28 **The Bank's strategy with the country.** The program falls within the framework of the Bank's country strategy with Honduras 2015-2018 (document GN-2796-1), through the strategic objectives of: (i) improving the efficiency and quality of electricity service and diversifying the power generation matrix; and (ii) increasing access to electricity service. Because it promotes strategic investment sectors, modernizes and expands infrastructure, and facilitates energy cost reductions and improved reliability of electricity services, the program also fits within the pillar of invigorating the productive sector under the Plan of the Alliance for Prosperity in the Northern Triangle.
- 1.29 **Strategic alignment.** The program is consistent with the Update to the Institutional Strategy 2010-2020 (document AB-3008) and is aligned with the development challenges of: (i) productivity and innovation, by promoting the implementation of generation systems based on renewable energies; and (ii) social inclusion and equality, by facilitating the population's access to

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<sup>38</sup> The G16 donor roundtable analyzes opportunities for cooperation through sector roundtables on energy (and on mini-grids specifically). The United States Government, acting through its various agencies, is providing support to Honduras. There is also some development assistance outside the framework of the G16, including support from the Governments of South Korea and Ecuador, as well as from other countries (through the Zero Fossil Fuels program in the Galapagos Islands).

<sup>39</sup> The KSP program was financed by the Government of South Korea, with the IDB acting as executing partner. Under this program, feasibility studies were conducted for the construction of a mini-grid with renewable energy integration and energy storage systems in Guanaja Island.

electricity service. The program is aligned with the crosscutting areas of: (i) institutional capacity and rule of law, in that it creates mechanisms to facilitate the management of electrification systems in remote locations; and (ii) climate change and environmental stability, by leveraging renewable energies with low CO<sub>2</sub> emissions to help mitigate climate change. According to the [Multilateral Development Banks' joint methodology for tracking climate change mitigation finance](#), 100% of SREP investment grant resources are invested in climate change mitigation activities. These funds contribute to the IDB Group's target of increasing climate-change related project financing to 30% of all operation approvals by the end of 2020.

- 1.30 The program is aligned with the priority areas of the Bank's Sustainable Infrastructure for Competitiveness and Inclusive Growth Strategy (document GN-2710-5), as it supports the construction and maintenance of socially and environmentally sustainable infrastructure that helps improve quality of life. The program is consistent with the Energy Sector Framework Document (document GN-2830) in the thematic areas of energy access and sustainability, since it promotes: (i) the supply of power to remote rural areas; and (ii) diversification of the energy matrix through the use of renewable energies. The program is consistent with the Climate Change Sector Framework Document (document GN-2835-3), as the proposed energy policy reforms will lead to a reduction in greenhouse gas emissions.
- 1.31 **Consistency with the Public Utilities Policy** (document GN-2716-6). The operation has been designed to (i) promote energy access at affordable prices; (ii) improve residential public utility governance through the implementation of an effective regulatory regime that protects user rights; and (iii) promote innovation to boost efficiency, access, and environmental sustainability through the construction of photovoltaic micro-grids that help reduce the cost of service delivery. The program is consistent with the financial sustainability and economic evaluation conditions in that it implements a rate structure that provides for the operation and maintenance of the systems ([Analysis of compliance with the Public Utilities Policy](#)) (paragraph 1.45).
- 1.32 **Alignment with SREP objectives.** The program is consistent with the SREP objective of helping to demonstrate the economic, social, and environmental viability of low-carbon development pathways to improving energy access in low-income countries. The program contributes to this objective by implementing sustainable energy solutions based on renewable energies to expand energy access and economic opportunities in remote rural areas. The [Investment Plan for Honduras](#) under the SREP was approved on 4 November 2011 and updated in March 2017. The update includes three components to be executed by the IDB: (i) strengthening the renewable energy policy and regulatory framework

(US\$850,000);<sup>40</sup> (ii) sustainable rural energization (up to US\$10,216,000);<sup>41</sup> and grid-connected renewable energy development support (US\$18,624,000).<sup>42</sup>

- 1.33 **Gender additionality.** Women's participation will be encouraged in jobs and businesses associated with the construction, operation, and maintenance of individual renewable energy systems in distant or hard-to-reach communities.<sup>43</sup>

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

- 1.34 **Objective.** The program's general objective is to support the expansion of electricity coverage in Honduras by implementing projects involving decentralized renewable energy generation with distribution through mini-grids. The specific objectives are to (i) increase electricity access in unserved remote communities; (ii) reduce electricity costs in communities where supply is based on mini-grids with diesel generation; and (iii) develop sector institutional capacities for the design, construction, operation, and maintenance of these projects.

- 1.35 **Component 1. Development of electricity generation systems in rural locations cut off from the interconnected grid (US\$5.73 million).** Financing will be provided for renewable energy generation systems with mini-grids in Brus Laguna and Guanaja, and for residential photovoltaic systems in El Corpus and Concepción de Maria.<sup>44</sup> The activities include the final design, construction, and supervision of these projects. The results of technical cooperation operation ATN/NV-14824-HO<sup>45</sup> and the KSP<sup>46</sup> will be taken into account in preparing the

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<sup>40</sup> Financed under technical cooperation operation ATN/SX-16689-HO.

<sup>41</sup> Grant resources to finance the replacement of conventional wood-burning stoves with fuel-efficient ones, financed by MIF for up to US\$2.43 million. This project is financed under this component of the Investment Plan.

<sup>42</sup> Financing is provided for generation projects using nonconventional renewable energies and transmission projects that allow these energies to access the SIN. Funding for generation activities is reimbursable. In the case of transmission projects, both reimbursable and nonreimbursable SREP resources have been used to provide supplementary financing for nonreimbursable investment for Support for the Integration of Honduras in the Regional Electricity Market and for Grid Access for Renewable Energy (GRT/SX-16864-HO) and Support for the National Electricity Transmission Program (loan operation 4599/SX-HO).

<sup>43</sup> Under the "Program to Promote Gender Inclusion in the Energy Sector" technical cooperation operation (ATN/OC-16266-RG, ATN/OC-16267-RG), financing is being provided for issues that have a significant impact on gender and energy, including: support for productive energy use, possibly including the creation of a fund to set up businesses led by women and young people in Miskito communities, particularly those based on women's ancestral and cultural knowledge; technical training for young women in the technical maintenance of the systems; strengthening of the company's community relations through communication and dissemination events regarding efficient energy use and the role of women, men, and children in the efficient use of natural resources; and support for ENEE with the issues faced by remote rural communities and with using a gender-sensitive approach to renewable energies.

<sup>44</sup> The Guanaja mini-grid will be built on a land parcel that will be purchased by the ENEE, while the Brus Laguna mini-grid will use a municipal plot that will be transferred to the ENEE. In the specific case of Brus Laguna, where the parcel belongs to the municipio, municipal authorities have approved the donation of the land to be used for development of the mini-grid. In the case of Guanaja, where the parcel is private property, the executing agency is carrying out the administrative procedures for acquiring the property, with support from the Property Institute. Land acquisitions are governed by the National Government Asset Office Organization and Operating Regulations, Executive Decree 226-2017. The land parcels are expected to be registered to the ENEE in November 2018. Before awarding the contracts for the respective works, the lands used for the Guanaja and Brus Laguna mini-grids will be acquired and owned by the ENEE.

<sup>45</sup> Technical cooperation operation to evaluate renewable resources in the Bay Islands.



bidding documents and final designs for the mini-grids in Brus Laguna and Guanaja.

- 1.36 During final design preparation, construction, and startup of the mini-grids and individual systems, the executing agency will conduct bidding processes in accordance with the Bank's procurement policies. The executing agency will contract operators that are specialized in mini-grid management, operation, and maintenance, based on the guidelines laid out in the LGIE and the results of Component 2. In the case of the operation and maintenance of the residential photovoltaic systems, the executing agency plans to hire local companies with substantial female participation. Funding will only be provided for financially sustainable works whose operation and maintenance is assured.
- 1.37 **Component 2. Strengthening of management capacities. (US\$0.43 million).** Specialized consultations, workshops, training programs, and programs for the exchange of experiences will be undertaken to: (i) foster community participation, and the participation of women in particular, in project construction, operation, and maintenance; (ii) identifying and encouraging the participation of private companies in energy distribution and marketing; and (iii) strengthening FOSODE's operational and financial capacity for managing and developing rural electrification projects based on the design, construction, and supervision of mini-grids. Financing will be provided for specialized tools to support the design, supervision, and evaluation of rural electrification experiences and training in local languages.
- 1.38 **Administration and evaluation (US\$0.26 million).** Financing will be provided for contracting consulting services to undertake program supervision, evaluation, and audit activities.
- 1.39 The costs of these activities are set out in Table 1.

**Table 1. Total program costs**

<b>Investment categories</b>	<b>US\$</b>
<b>Component 1. Development of electricity generation systems in rural locations cut off from the interconnected grid</b>	<b>5,730,000</b>
Mini-grids in Guanaja and Brus Laguna	5,300,000
Residential photovoltaic systems	430,000
<b>Component 2. Strengthening of management capacities</b>	<b>430,000</b>
Design and implementation of management models	40,000
Design and implementation of the financial and social sustainability strategy	110,000
Design and implementation of the strategy for strengthening FOSODE	170,000
Personnel training	110,000
<b>Administration and evaluation</b>	<b>260,000</b>
Supervision	130,000
Evaluation and audit	130,000
<b>Total</b>	<b>6,420,000</b>

<sup>46</sup> The KSP program finances the development of feasibility studies for the use of renewable energies with energy storage systems in Guanaja Island.

## C. Key results indicators

- 1.40 Achievement of program objectives will be measured against the indicators and targets presented in the Results Matrix. Table 2 sets out the expected results and the corresponding indicators.

**Table 2. Expected results and indicators**

Impact	Indicator
Electricity access at the national level	Electricity coverage
Weighted CO <sub>2</sub> emission factor for the electricity system	CO <sub>2</sub> emissions per unit of energy produced
Outcomes	Indicator
Increased energy coverage	Households benefiting from renewable energy based electricity generation in Guanaja <sup>47</sup>
	Households benefiting from renewable energy based electricity generation in Brus Laguna <sup>48</sup>
	Households benefiting from renewable energy based electricity generation in El Corpus
	Households benefiting from renewable energy based electricity generation in Concepción de María
Improved technical, economic, and social sustainability of electrification systems in remote locations	Annual power consumption invoices of users benefiting from the program in Guanaja
	Annual power consumption invoices of users benefiting from the program in Brus Laguna
	Residential electricity spending in Guanaja
	Residential electricity spending in Brus Laguna
	Residential electricity spending in El Corpus and Concepción de María
Improved ENEE capacities for managing rural electrification projects <sup>49</sup>	National energy access plan that includes the development of mini-grids

- 1.41 **Beneficiaries.** The residents of the four targeted areas will be direct beneficiaries of the program. Beneficiary distribution is presented in Table 3.

**Table 3. Target numbers of direct beneficiaries**

Department	Municipio	No. of households	Beneficiary population
<b>Bay Islands</b>	Guanaja	1,195	4,398
<b>Gracias a Dios</b>	Brus Laguna	2,270	12,719
<b>Choluteca</b>	Concepción de María	350	1,750
<b>Choluteca</b>	El Corpus	300	1,500
<b>Total</b>		<b>4,115</b>	<b>20,367</b>

<sup>47</sup> As a region whose population is predominantly English-speaking Afro-descendants, beneficiary household data disaggregated by race/ethnicity will be collected where possible.

<sup>48</sup> As a region whose population is predominantly Miskito, beneficiary household data disaggregated by race/ethnicity will be collected where possible.

<sup>49</sup> The ENEE has developed conventional rural electrification projects based on grid extensions and support for individual solutions in remote areas.

- 1.42 The program should improve the productivity of the economic activities of the beneficiary communities, where the main economic activity is fishing. Electricity access will create opportunities for modernizing production practices, boosting the value added to products through the use of refrigeration and post-harvest processing in agriculture and fishing, as well as encouraging tourism.
- 1.43 **Technical feasibility.** Technology research and development has considerably reduced the prices of photovoltaic and wind technologies, energy storage systems, and control systems (collectively known as mini-grids), which now cost as much as or less than thermal energy in accessible locations. Their technical and economic viability has also been demonstrated for stand-alone systems. The designs and cost calculations for the projects to be financed were prepared by consulting firms funded by technical cooperation operations (paragraph 1.19) and were reviewed and updated by FOSODE. The ENEE will hire an external works supervision firm to ensure compliance with technical and quality specifications, construction timelines, and budgets. Ongoing work in the sector and with the executing agency (paragraph 1.23) has allowed the ENEE to acquire experience in fiduciary, technical, and environmental management and in the supervision and monitoring of Bank-financed operations. This will be a valuable contribution to the execution of this operation.
- 1.44 **Institutional feasibility.** The ENEE has 60 years of experience in electricity generation, transmission, distribution, and marketing in Honduras. Through its engineering division and FOSODE, it has been responsible for the design, construction, and supervision of electrical infrastructure works. Bearing in mind its National Social Electrification Plan and its slogan, “energetically moving toward social development in Honduras,” the inclusion of the ENEE as a strategic actor in executing this program is consistent with its LGIE-established mandate of financing rural electrification projects through the ENEE-administered FOSODE, which seeks to promote quality electricity access at competitive prices.
- 1.45 **Economic evaluation.** Cost-effectiveness analysis was used as the evaluation method. This assumes that the benefits are known and desired by society and that the option on offer should be justified as the lowest-cost solution among available alternatives. The analysis was carried out for each component. In the case of Component 1, the unit cost (levelized cost of energy) of mini-grid photovoltaic solutions was compared with a diesel-based solution. It was demonstrated that the cost of mini-grid photovoltaic solutions is 74.21%-75.57% of the cost of the diesel solution, which confirms the advantageous nature of this proposal.<sup>50</sup>

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<sup>50</sup> The average unit cost of electrification via the grid is greater than US\$8,000 for mainland locations. This solution is not considered technically feasible for island locations.

**Table 4. Comparison of unit costs by technology. Component 1**

Future value, mini-grid vs. diesel	
Future value, mini-grid	US¢/kWh
Brus Laguna	48.24
Guanaja	34.08
Diesel	US¢/kWh
Brus Laguna	65.0
Guanaja (average)	45.0
Future value, mini-grid vs. Diesel	%
Brus Laguna	74.21
Guanaja	75.57

- 1.46 In the case of component 2, the cost of the proposed solution (US\$650) was found significantly lower than the cost of extending the grid. The levelized cost of energy for the residential photovoltaic solution (US\$0.92/kWh) was compared to that of an individual gasoline-based solution (US\$1.20/kWh). The comparison confirmed that the proposed solution was the most cost-effective.
- 1.47 As part of the sensitivity analysis, changes to key variables were simulated, together with their impact on cost-effectiveness. The proposed investment was found to be robust under all scenarios. The [program economic evaluation](#) link presents the assumptions, scenarios, and results of the evaluation.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing instruments

- 2.1 **Financing structure.** The program will be financed through an investment grant, funded by SREP resources from the Strategic Climate Fund (SCX),<sup>51</sup> with a maximum value of US\$6,420,000.<sup>52</sup> It is financed with SREP funds from the which is administered by the Bank as an implementing entity for the Climate Investment Funds (CIF). The funds will be disbursed over four years, according to the disbursement schedule in Table 5 and as detailed in the [multiyear execution plan](#). The execution period was determined based on similar experiences in developing mini-grids<sup>53</sup> under other projects in the region, as well as the logistical complexities of executing projects in remote locations.

<sup>51</sup> In February 2011, the Board of Executive Directors authorized the Bank to act as an implementing entity for the CIF. To this end, it signed a Financial Procedures Agreement with the World Bank, the CIF administrator. The Bank's Board of Executive Directors approved the creation of the SCX as a vehicle for administering these resources (document GN-2604-3).

<sup>52</sup> In August 2017, the SREP subcommittee of the CIF approved the use of resources for this program as part of the SREP Investment Plan for Honduras, which was also approved by that committee. This program required a longer preparation time so that a robust public consultation process could be conducted in the communities impacted by the projects, and so that progress could be made in acquiring the lands for the mini-grids in the municipios and in defining the parties responsible for operation and maintenance.

<sup>53</sup> Based on the exchange of experiences (paragraph 1.21), the executing agency updated the Multiyear Execution Plan to establish more realistic time frames for conducting international competitive bidding, groundwork, construction and startup of the mini-grid, and training.

**Table 5. Disbursement schedule (in U.S. dollars)<sup>54</sup>**

Source	Year				Total
	1	2	3	4	
SREP	397,726	1,834,074	3,430,760	757,440	6,420,000
<b>TOTAL</b>	397,726	1,834,074	3,430,760	757,440	<b>6,420,000</b>
<b>IDB disbursements (%)</b>	6.2%	28.6%	53.4%	11.8%	<b>100%</b>

## **B. Environmental and social risks**

- 2.2 This operation has been classified as Category B in accordance with the Environment and Safeguards Compliance Policy (document OP-703). This program should not have any adverse socioenvironmental effects. The clean energy solutions that will be financed are expected to replace the use of fossil fuels and firewood, reducing the risk of ground and water-body contamination and alleviating pressure on forests. The quality of life of low-income inhabitants is also expected to improve with electricity access, which will open up opportunities for improvements in the local economy (through reduced fuel purchases), well-being, communications, and beneficiary productivity. To date, Social and Environmental Analyses have been produced for each of the four stand-alone solar systems, as well as Environmental and Social Management Plans (ESMPs). These include measures to mitigate the identified medium-level impacts and risks, such as: (i) difficulties in accessing the sites to be used for project development, and (ii) proper disposal of panels and batteries at the end of their useful life. To mitigate the first risk, the executing agency will establish strategic partnerships with key stakeholders, such as municipalities. For the second risk, the services of a certified battery disposal agent will be contracted. Significant public consultations have been carried out in Guanaja, Brus Laguna, Concepción de Maria, and El Corpus, where project construction will take place. As the populations of Brus Laguna and Guanaja are considered indigenous peoples under IDB policy OP-765, public consultations were socioculturally appropriate and conducted as stipulated in the policy. Sociocultural evaluations were also performed in these two locations.
- 2.3 As indicated in the Access to Information policy (document OP-102), the Social and Environmental Analyses, ESMPs, and public consultation reports have been published on the Bank's website.

## **C. Fiduciary risks**

- 2.4 The following fiduciary risks have been identified and classified as medium: (i) the timely award of fiscal exemptions; and (ii) a limited number of bidding firms interested in participating in the international public bidding process. To mitigate the first risk, the executing agency will make adequate arrangements with the Ministry of Finance and the Revenue Administration Service and will hire a specialist to handle the fiscal exemption process. To mitigate the second risk, the project will be widely advertised in workshops, embassies, and trade magazines to ensure the participation of specialized bidders, and an appropriate rate schedule will be used.

<sup>54</sup> Calculated based on the Multiyear Execution Plan.

#### **D. Other risks and key project issues**

- 2.5 The following risks have been identified and classified as medium: (i) delays in land acquisition/transfers; (ii) insufficient budget for project development; and (iii) the executing agency's lack of experience in electrification projects involving mini-grids. The following measures will be implemented to mitigate these risks: (i) preparation and monitoring of an action plan for land acquisition/transfer;<sup>55</sup> (ii) hiring of a technical consultant to review the final designs and the budget for the systems to be implemented; and (iii) technical support from the Bank through technical assistance and project supervision.
- 2.6 **Sustainability.** The investment costs of developing the works for the renewable energy mini-grids (photovoltaic generation and energy storage) will be financed by the SREP grant. As the grant financing for the generation works will not need to be repaid, the only cost will be the replacement of batteries and other components over the useful life of the project (25 years). Therefore, the only costs associated with these works will be operation and maintenance costs. These costs account for 6.3% of current rates, which is more than sufficient to ensure operation and maintenance. Equipment replacement costs (mainly from batteries) represent 8.1% of current rates. Generation assets will be the property of the ENEE, but their operation and maintenance will be managed by a private operator that will be contracted by means of international public bidding, pursuant to the provisions of the LGIE. The collection of electricity sales revenue will be managed by the private operator. As a result, the ENEE's finances will not be affected.
- 2.7 The updated rate schedule for stand-alone systems (currently based on diesel prices) will include provisions for recovering the costs of operation, maintenance, and equipment replacement. The updating of secondary legislation will be financed with resources from the technical cooperation operation (paragraph 1.22). Lastly, during the program preparation phase, the viability of attracting private firms to build and operate the photovoltaic mini-grids was confirmed, as demonstrated on the neighboring island of Utila and by the development of solar technology in the country (paragraph 1.16).

### **III. IMPLEMENTATION AND MANAGEMENT PLAN**

#### **A. Summary of implementation arrangements**

- 3.1 **Execution mechanism.** The ENEE—acting through the program coordination unit (PCU) and with the support of FOSODE's Social Electrification Office—will be responsible for program execution, administration, and monitoring and evaluation. The ENEE will hire an external supervisory firm to supervise the works.
- 3.2 The ENEE is responsible for implementing and supervising the program; defining and approving annual work plans; providing information that allows the Bank to monitor and evaluate program results (paragraph 3.9); coordinating and processing disbursements; and maintaining accounting and financial records (including the requisite program annual financial statements).

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<sup>55</sup> Includes the work of the Productivity Institute.

- 3.3 **Procurement management.** The procurement of works, goods, and consulting services financed with Bank resources will be conducted in accordance with the Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank (document GN-2349-9) and the Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank (document GN-2350-9). The supervision method will be a combination of ex post and ex ante review in accordance with the provisions of the [procurement plan](#). Procurement contracts will be included in the procurement plan approved by the Bank and will follow the methods and ranges established therein. Arrangements will be made for a procurement plan for the first 18 months of execution, which will be monitored, executed, and updated using the tools determined with the Bank. In accordance with the Bank's Policies for the Selection and Contracting of Consultants (document GN-2350-9), PCU staff may be contracted directly where this involves continuity in services previously provided by a consultant, as long as the consultant was competitively selected under earlier Bank-financed operations executed by the ENEE, and subject to satisfactory performance in the initial assignment.
- 3.4 **Program Operations Manual.** Program execution will be governed by the provisions of the program Operations Manual previously agreed upon with the Bank. The program Operations Manual will include all procedures to be used during program execution and may be amended during the program with the Bank's written no objection. The program Operations Manual will include: (i) detailed arrangements for program execution and institutional and operational roles and responsibilities of the entities involved; (ii) criteria for selecting the beneficiaries of the residential photovoltaic systems; (iii) rules and procedures for the selection and contracting of works, goods, and services; (iv) an investment sustainability strategy: payment structures for electricity service, maintenance responsibilities, selection criteria for facility managers; (v) rules and procedures for administrative and financial management; (vi) monitoring and supervision procedures; and (vii) the measures, actions, and procedures set out in the ESMP, which will be an annex to the program Operations Manual.
- 3.5 **As a special contractual condition precedent to the first disbursement, the program Operating Manual will be approved and will have entered into force in accordance with the terms previously approved by the Bank.** This condition is necessary to ensure satisfactory program execution, given that the Bank's experience in the region indicates that approval of a program Operating Manual prior to the first disbursement helps the executing agency organize internally for operation implementation.
- 3.6 **Special contractual clauses relating to execution:** (i) the rate schedule for stand-alone systems using renewable energy will be approved by the Electricity Regulatory Commission prior to awarding the first works under Component 1. This condition is justified as it will allow the mini-grid operator to receive a rate per client type that will ensure the technical and financial sustainability of the projects discussed in paragraphs 2.6 and 2.7.
- 3.7 **Financial management.** The ENEE, acting through the PCU, will be responsible for financial management and will deliver audited financial statements for financing from the Bank within 120 days after the end of each financial period. The last of these reports will be delivered within 120 days after the date of the last disbursement. The ENEE will contract external audit services in accordance

with terms of reference previously approved by the Bank. Disbursements will be made in accordance with the financial plan and the Financial Management Guidelines for IDB-Financed Projects (document OP-273-6) and any updates thereto.

**B. Summary of arrangements for monitoring results**

- 3.8 **Monitoring and evaluation.** A [monitoring and evaluation plan](#) has been prepared for the program. Monitoring arrangements will include: (i) [a procurement plan](#); (ii) [a multiyear execution plan and an annual work plan](#); (iii) annual verification of fulfillment of the targets contained in Annex II; and (iv) semiannual reports that will contain: (a) activities undertaken during the period, progress in their execution, problems that have arisen, and solutions to those problems; (b) evaluation of the Results Matrix, the procurement plan, the annual work plan, and the Risk Matrix; and (c) analysis of the Bank's Project Monitoring Report, which will evaluate the fulfillment of the targets set for the output and outcome indicators in the Results Matrix. An evaluation of execution over the period will be included, as well as a plan for the upcoming six-month period.
- 3.9 The monitoring and evaluation plan includes the program evaluation arrangements, which are intended to verify fulfillment of the targets established in the Results Matrix. The ENEE will select and commission consulting services to conduct: (i) a midterm evaluation, including a midterm report that will be submitted within 60 days after 50% of project resources have been disbursed and justified, or after 24 months of execution, whichever occurs first. This evaluation will focus on analyzing the progress achieved, coordination and execution issues, the degree to which contractual obligations have been met, and recommendations for achieving the proposed targets and investment sustainability; and (ii) a final evaluation within 90 days after the date of last disbursement. The associated project completion report will be presented within 90 days of the last justification of disbursement and will cover the degree to which the targets set in the Results Matrix have been met, an ex post cost-benefit analysis, executing agency performance, factors affecting implementation, and recommendations for future operations.



Development Effectiveness Matrix		
Summary		
<b>I. Corporate and Country Priorities</b>		
<b>1. IDB Development Objectives</b>	Yes	
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Public agencies' processing times of international trade of goods and services * -Installed power generation from renewable energy sources (%)* -Households with new or improved access to electricity supply (#)* -Electricity transmission and distribution lines installed or upgraded (km)*	
<b>2. Country Development Objectives</b>	Yes	
Country Strategy Results Matrix	GN-2796-1	Improve efficiency, quality of electric service and diversify the generation matrix; and Increase access to electricity service.
Country Program Results Matrix		
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
<b>II. Development Outcomes - Evaluability</b>	Evaluable	
<b>3. Evidence-based Assessment &amp; Solution</b>	6.6	
3.1 Program Diagnosis	2.4	
3.2 Proposed Interventions or Solutions	1.7	
3.3 Results Matrix Quality	2.5	
<b>4. Ex ante Economic Analysis</b>	7.6	
4.1 Program has an ERR/NPV, or key outcomes identified for CEA	2.2	
4.2 Identified and Quantified Benefits and Costs	3.3	
4.3 Reasonable Assumptions	0.0	
4.4 Sensitivity Analysis	2.2	
4.5 Consistency with results matrix	0.0	
<b>5. Monitoring and Evaluation</b>	7.9	
5.1 Monitoring Mechanisms	2.5	
5.2 Evaluation Plan	5.4	
<b>III. Risks &amp; Mitigation Monitoring Matrix</b>		
Overall risks rate = magnitude of risks*likelihood	Medium	
Identified risks have been rated for magnitude and likelihood	Yes	
Mitigation measures have been identified for major risks	Yes	
Mitigation measures have indicators for tracking their implementation	Yes	
Environmental & social risk classification	B	
<b>IV. IDB's Role - Additionality</b>		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Accounting and Reporting.
Non-Fiduciary	Yes	Monitoring and Evaluation National System.
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		

Note: (\*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

The objective of the project is to support rural electrification extension in rural areas of Honduras, through the implementation of decentralized renewable energy generation projects distributed in micro-grids. In particular, the project is structured in two components: i) Development of electricity generation systems in isolated areas of the interconnected system, and ii) Strengthening of management capacities of the country's energy sector. The project is aligned with the Update to the Institutional Strategy 2010-2014 and with the development challenges of Productivity and Innovation and Social Inclusion and Equality. Likewise, the project is aligned with the cross-cutting issues of Institutional Capacity and the Rule of Law, as well as with Climate change and Environmental Sustainability. The program diagnosis appropriately assesses the situation of the energy sector in the country. In particular, lack of access to electricity is regarded as the main problem and the main factors contributing to this problem are identified; specifically, the lack of supply of service in remote areas combined with high service costs, as well as the lack of institutional and fiscal capacities within the ENEE (National Electric Energy Company). The intended beneficiary population is not clearly identified. Annex EEO # 6 describes the methodology that was carried out for the selection of the different departments and municipalities that were selected. Although the different weights that were used are described, the criteria still seem ad hoc. In principle, it is not clear why the cost of energy has the same weight as entrepreneurial opportunities. In addition, it is not clear why other potential beneficiary municipalities such as Puerto Lempira and Isla Utila were excluded. On the other hand, neither the POD nor its annexes present sound evidence about the effectiveness of this type of program, in particular, with regards to the reduction of energy costs or the reduction of CO2 emissions. By the same token, evidence on the degree to which this particular intervention would hold in the country is not presented.

In general, the results matrix reflects the vertical logic described in the POD, covering the inputs, outcomes and results. However, the results indicators related to electricity expenditure in the four municipalities that were selected do not have an annual target. The rest of the indicators in the results matrix meet the SMART criteria and include the sources and means of verification that will be used to measure them. The project proposes a cost-effectiveness (CE) analysis, in which a comparison of the unit cost per user is performed between the alternative to be implemented and another one based on diesel. In spite that the assumptions considered for the analysis seem reasonable, no references or documentary sources are provided to support the assumptions. Furthermore, through the CE analysis, it is not possible to determine how the targets of the various outcome indicators will be achieved based on the values set in the baseline. Finally, the program does not contemplate an impact evaluation to measure the causal effects of the program. An intermediate and final evaluation is planned to evaluate the results achieved using the before-after comparison methodology. However, the Monitoring and Evaluation Plan does not specify the data sources nor the timeline to gather the data for the project.

## RESULTS MATRIX

<b>Project objective</b>	The program's general objective is to support the expansion of electricity coverage in Honduras by implementing projects involving decentralized renewable energy generation with distribution through mini-grids. The specific objectives are to (i) increase electricity access in unserved remote communities; (ii) reduce electricity costs in communities where supply is based on mini-grids with diesel generation; and (iii) develop sector institutional capacities for the design, construction, operation, and maintenance of these projects.
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	<b>Indicator</b>	<b>Unit of measure</b>	<b>Baseline 2017</b>	<b>Final target 2022</b>	<b>Comments/ Means of verification</b>
Electricity access at the national level	Electricity coverage	%	77.21%	87%	ENEE Planning Department
Weighted CO <sub>2</sub> emission factor for the electricity system	CO <sub>2</sub> emissions per unit of energy produced	Ton CO <sub>2</sub> /MWh	0.53	0.4	ENEE Planning Department

<b>OUTCOMES</b>									
<b>Indicator</b>	<b>Unit of measure</b>	<b>Baseline</b>	<b>Baseline year</b>	<b>Year 1</b>	<b>Year 2</b>	<b>Year 3</b>	<b>Year 4</b>	<b>Project completion</b>	<b>Comments/ Means of verification</b>
<b>Outcome 1: Increased energy coverage</b>									
Households benefiting from renewable energy based electricity generation in Guanaja <sup>1</sup>	#	0	2017	0	0	1,195	0	1,195	ENEE semiannual progress reports
Households benefiting from renewable energy based electricity generation in Brus Laguna <sup>2</sup>	#	0	2017	0	0	0	2,270	2,270	
Households benefiting from renewable energy based electricity generation in El Corpus	#	0	2017	0	300	0	0	300	

<sup>1</sup> As a region whose population is predominantly English-speaking Afro-descendants, beneficiary household data disaggregated by race/ethnicity will be collected where possible.

<sup>2</sup> As a region whose population is predominantly Miskito, beneficiary household data disaggregated by race/ethnicity will be collected where possible.

OUTCOMES									
Indicator	Unit of measure	Baseline	Baseline year	Year 1	Year 2	Year 3	Year 4	Project completion	Comments/ Means of verification
Households benefiting from renewable energy based electricity generation in Concepción de María	#	0	2017	0	350	0	0	350	
<b>Outcome 2: Improved technical, economic, and social sustainability of electrification systems in remote locations</b>									
Annual power consumption invoices of users benefiting from the program in Guanaja	MWh/year	0	2017	-	-	1,300	-	1,300	ENEE semiannual progress reports
Annual power consumption invoices of users benefiting from the program in Brus Laguna	MWh/year	0	2017	-	-	-	850	850	
Residential electricity spending in Guanaja	L/kWh	11	2017	-	-	*	-	*	ENEE semiannual progress reports The rate will be calculated based on the studies in Component 2. Baseline calculated using diesel-based thermal generation values for 2017
Residential electricity spending in Brus Laguna	L/kWh	> 16	2017	-	-	*	-	*	ENEE semiannual progress reports The rate will be calculated based on the studies in Component 2. Baseline calculated using diesel-based thermal generation values for 2017 in Puerto Lempira
Residential electricity spending in El Corpus and Concepción de María	L/kWh	3.85	2017	-	-	*	-	*	ENEE semiannual progress reports The rate will be calculated based on the studies in Component 2.
<b>Outcome 3: Improved ENEE capacities for managing rural electrification projects</b>									
National energy access plan that includes the development of mini-grids	Report	0	2017	-	-	1	-	1	Report on the national energy access plan

\* To be determined based on the rate calculations.

Output	Unit of measure	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Project completion	Comments/ Means of verification
Component 1. Development of electricity generation systems in rural locations cut off from the interconnected grid									
Photovoltaic solar energy plant on Guanaja Island, built and operating	Plant	2,750,000	0	0	0	1	0	1	ENEE semiannual progress reports
Photovoltaic solar energy plant in the municipio of Brus Laguna, built and operating	Plant	2,550,000	0	0	0	0	1	1	
Residential photovoltaic systems in the municipios of El Corpus and Concepción de María, installed and operating	System	410,000	0	0	650	0	0	650	
Committee created to support technical, economic, and social, sustainability in El Corpus and Concepción de María	Committee	20,000	0	0	2	0	0	2	
Component 2. Strengthening of management capacities									
Management models designed and implemented	Model	40,000	0	1	2	0	0	3	ENEE semiannual progress reports
Financial and social sustainability strategy designed and implemented <sup>3,4</sup>	Strategy	110,000	0	0	1	1	0	2	

<sup>3</sup> This output includes the preparation of a strategy for female participation in the construction, operation, and supervision of electricity (photovoltaic) generation systems in remote locations.

<sup>4</sup> The strategy will include a plan for training at least 25 women in the construction, operation, and supervision of electricity generation projects in remote locations.

Output	Unit of measure	Cost (US\$)	Baseline	Year 1	Year 2	Year 3	Year 4	Project completion	Comments/ Means of verification
Strategy for strengthening FOSODE, designed and implemented.	Strategy	170,000	0	0	1	0	0	1	
Staff trained in the planning and development of mini-grids with renewable energy	Individuals	110,000	0	6	6	6	6	24	

## FIDUCIARY AGREEMENTS AND REQUIREMENTS

<b>Country:</b>	Honduras
<b>Project:</b>	HO-G1247 Remote Area Rural Electrification Program
<b>Executing agency:</b>	National Electric Power Company (ENEE)
<b>Fiduciary team:</b>	Nadia Rauschert (Financial Management, FMP/CHO); Maria Cecilia Del Puerto Correa (Procurement, FMP/CHO)

### I. EXECUTIVE SUMMARY

- 1.1 The most recent diagnostic assessments of financial management in Honduras reflect significant progress toward good practices and international standards, mainly in the modernization of the institutional framework and the integration of government budgeting, cash management, and accounting systems into the Integrated Financial Administration System (SIAFI).
- 1.2 As for the public procurement system, a 2010 diagnostic assessment using the Methodology for Assessing Procurement Systems developed by the Organization for Economic Cooperation and Development identified Honduras's strengths, particularly in terms of the alignment of its legal framework with most international best practices. However, the country still faces challenges in reaching the standards that would allow the Bank to use the country system in Bank-financed operations.
- 1.3 This operation involves an investment grant in the amount of US\$6.42 million. The beneficiary is the Republic of Honduras, and the executing agency is the National Electric Power Company (ENEE).

### II. THE EXECUTING AGENCY'S FIDUCIARY CONTEXT

- 2.1 The ENEE has experience in executing Bank projects and has a team that is trained in fiduciary processes. The fiduciary agreements and requirements established for this program are based on the ENEE's background as the executing agency for loans 1584/SF-HO (closed), 2016/BL-HO (closed), 3103/BL-HO (close to completion), and 3435/BL-HO (in execution). A risk analysis conducted in May of this year using the project risk management methodology was also used as an input.

### III. COUNTRY SYSTEMS

- 3.1 The country systems or equivalents that will be used in this operation are:
  - a. **Budget:** budgetary resources for this operation will be included in the Budget Act for 2018 and subsequent years.
  - b. **Cash management:** a special account will be opened at the Central Bank of Honduras to administer program resources; the account will be part of the Treasury Single Account.

- c. **Accounting and financial reporting:** the ENEE has implemented the SIAFI and uses the Module for Executing Units of Externally Financed Projects (UEPEX) to register and issue reports for the externally-financed operations that it executes.

#### **IV. PROCUREMENT**

- 4.1 The ENEE has the requisite experience in disseminating Bank-financed procurement processes through HONDUCOMPRAS, the official website for posting government procurement opportunities. In goods and works procurement processes, the ENEE also uses the standard documents agreed upon by the Bank and the Government Procurement Regulatory Office for national competitive bidding and shopping.

#### **V. FIDUCIARY RISK EVALUATION AND MITIGATION ACTIONS**

- 5.1 The following fiduciary risks were identified and have been classified as medium: (i) the timely award of tax exemptions; and (ii) a limited number of bidding firms interested in participating in the international public bidding process. To mitigate the first risk, the executing agency will engage a specialist to handle the tax exemption process and make timely arrangements with the Ministry of Finance and the Revenue Administration Service. To mitigate the second risk, the project will be widely advertised in workshops, embassies, and trade magazines to ensure the participation of specialized bidders, and an appropriate rate schedule will be used.
- 5.2 In the area of procurement, the ENEE's program coordination unit (PCU) has demonstrated its ability to conduct procurement using IDB procedures. Therefore, the identified risks will be mitigated by allowing the PCU to execute the operation, provided that the specialized personnel that currently make up the PCU are retained for this new operation, or, if necessary, replaced by staff of similar or greater capacity. The oversight and monitoring system that will be implemented will include the planning of the procurements required for the project. This will use the Procurement Plan Execution System agreed upon with the Bank (or the other applicable system, where appropriate). Efficient execution will require the PCU to keep close tabs on the dates that have been established with ENEE technical departments responsible for the preparation and delivery of technical documents to the required standards, with a view to mitigating potential delays in the processes.

#### **VI. CONSIDERATIONS FOR THE SPECIAL PROVISIONS OF CONTRACTS**

- 6.1 The agreements and requirements that will be included in the special provisions of the investment grant contract are as follows:
  - a. **Special contractual conditions precedent to the first disbursement.** At the request of the Ministry of Finance, a subsidiary agreement between the beneficiary and the ENEE will have entered into effect, in which the terms for transfer of the grant proceeds will be established, as well as other execution-related obligations.

- b. **Exchange rate agreed with the executing agency for financial reporting.** The executing agency has informed the Bank that it will use the exchange rate in effect on the date that the beneficiary, executing agency, or other authorized individual or entity makes the corresponding payments to contractors or suppliers.
- c. **Justification of expenditures.** The executing unit does not envisage any difficulties in achieving 80% of amounts received in advance.
- d. **Financial statements and other audited reports.** The executing agency will submit audited annual financial statements for the program within 120 days after the end of each financial period, as well as a final financial statement within 120 days after the date stipulated for the last disbursement. The statements will be audited by an audit firm eligible for Bank-financed projects or by the National Court Of Auditors.

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

- 7.1 The fiduciary agreements and requirements for procurement establish the rules governing the execution of all procurement processes planned under the project.

### **A. Procurement execution**

- 7.2 The ENEE, through the PCU, will be responsible for executing the selection, bidding, contracting, supervision, and acceptance processes for the contracts required to execute the program. These will be carried out in accordance with the Bank's procurement policies (GN-2349-9 and GN-2350-9) and the operation procurement plan. The procurement plan will provide details of: (i) the contracts for the works, goods, and consulting and nonconsulting services required to carry out the program; (ii) the proposed methods for the procurement of goods and selection of consultants; and (iii) the procedures used by the Bank to review each procurement process. For procurement planning, the executing agency will update the procurement plan on an annual basis or as needed for the program, using the execution and monitoring system chosen by the Bank, both for planning and for reporting progress. Any modifications to the procurement plan must be submitted to the Bank for approval. The PCU and the Bank will agree on a procurement plan for the first 18 months of execution. In accordance with the Bank's Policies for the Selection and Contracting of Consultants (document GN-2350-9), PCU staff may be contracted directly where this involves continuity of their services under earlier Bank-financed operations executed by the ENEE, provided they have positive performance evaluations.
- 7.3 **Procurement of works, goods, and nonconsulting services.** Contracts for works, goods, and non-consulting services<sup>1</sup> subject to international competitive bidding (ICB) under the project will be carried out using the standard bidding documents issued by the Bank. Contracts subject to national competitive bidding will be carried out using national bidding documents agreed with the Bank and posted on the Government Procurement Regulatory Office website: [www.honducompras.hn](http://www.honducompras.hn).

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<sup>1</sup> Policies for the Procurement of Goods and Works Financed by the Bank (document GN-2349-9), paragraph 1.1: The treatment of non-consulting services is similar to that of goods.



- 7.4 **Selection and contracting of consultants.** Contracts for consulting services under the project will be executed using the standard request for proposals issued by or agreed upon with the Bank.
- 7.5 **Selection of individual consultants.** At the discretion of the executing agency, the contracting of individual consultants may be carried out using local or international advertising to create a shortlist of qualified candidates. To ensure the continuity of their services, the consultants contracted to assist the executing agency in implementing operations 1584/SF-HO, 2016/BL-HO, 3435/BL-HO, and 3103/BL-HO may be directly contracted using funds under this operation. Provided that their original contracts were the result of a competitive selection process, they may be contracted for the entire execution period subject to the existence of an initial no objection.
- 7.6 **Advance procurement.** The operation does not call for advance procurement.
- 7.7 **Domestic preference.** The operation does not call for domestic preference.
- 7.8 **Others.** The program Operating Manual will contain the details of the project execution mechanism and instruments, as well as internal procedural and approval flows within the ENEE, with the objective of providing clarity and certainty in the launch of program operations and the timely monitoring of processes.

**B. Threshold amounts**

- 7.9 Thresholds for the use of international public bidding and the inclusion of international consultants in short lists will be made available to the executing agency through the [www.iadb.org/procurement](http://www.iadb.org/procurement) webpage. Below this threshold, the selection method will be determined according to the complexity and characteristics of each procurement item, as will be reflected in the procurement plan approved by the Bank.

**C. Main procurement items**

- 7.10 The ENEE will be responsible for preparing the procurement plan.<sup>2,3</sup> The Bank's procurement specialist will provide assistance to ensure that procedures are consistent with the Bank's procurement policies. The main procurement items planned under this operation are listed below:

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<sup>2</sup> Policy GN-2349-9, paragraph 1.16, and policy GN-2350-9, paragraph 1.23: The borrower shall prepare and, before loan negotiations, furnish to the Bank for its approval, a procurement plan acceptable to the Bank for at least the first 18 months.

<sup>3</sup> See [Guidelines for preparation and implementation of the initial procurement plan](#).

**Table 1: Main procurement items**

Activity	Type of process	Estimated date	Estimated amount (US\$)
<b>Works</b>			
Works contracts for renewable energy based (photovoltaic) generation systems in Brus Laguna and Guanaja	ICB	31/07/2020	5,200,000
<b>Consulting firms<sup>4</sup></b>			
Training for the ENEE in the design, construction, supervision, and management of mini-grid projects	CQS	05/03/2019	70,000
<b>Goods</b>			
Procurement of goods and associated services for residential photovoltaic systems in El Corpus and Concepción de María	ICB	10/09/2019	410,000

\* For the procurement plan for the first 18 months, click [here](#).<sup>5</sup>

#### **D. Procurement supervision**

- 7.11 Based on the analysis of fiduciary risk in procurement, the supervision method will be a combination of ex post and ex ante, as established in the procurement plan.
- 7.12 Regardless of the amount of the contract, any use of single-source selection for consulting firms or individual consultants and for non-consulting services, goods, or works will be subject to ex ante review by the Bank. Renewed or expanded contracts for individual consultants will not require any additional no objections beyond the one issued for the first contract awarded through a competitive process.

#### **E. Special provisions**

- 7.13 **Measures to reduce the likelihood of corruption.** The provisions of documents GN-2349-9 and GN-2350-9 with respect to prohibited practices (lists of companies and individuals that are ineligible to work with multilateral agencies) will be observed.
- 7.14 **Other special procedures:** At its discretion, the Bank may change the procurement supervision method based on execution performance, updated institutional capacity assessments, or fiduciary visits.

#### **F. Records and files**

- 7.15 The PCU will be responsible for maintaining files and original supporting documentation for procurement processes carried out with project resources, as well as for maintaining records in accordance with established procedures. The Operations Manual will document internal work flows and the separation of responsibilities.

<sup>4</sup> For consulting services, this means that the short list will consist of consulting firms from multiple countries. See document GN-2350-9, paragraph 2.6.

## VIII. FINANCIAL MANAGEMENT AGREEMENTS AND REQUIREMENTS

- 8.1 **Programming and budget.** Budgetary allocations of program funds will be reviewed annually.
- 8.2 **Accounting and information systems.** The SIAFI/UEPEX module will be used for financial and accountability reporting in Bank-financed projects. Honduras is in the process of implementing the International Public Sector Accounting Standards, pursuant to Article 96, Section 1 of the Budget Act, which stipulates that accounting plans and manuals must be harmonized with those standards.
- 8.3 **Disbursements and cash flow.** The main disbursement modality will be advances of funds, supported by a financial program covering no more than six months.
- 8.4 **Internal control and audit.** The Bank and the National Office for Integrated Development of Internal Control of Public Institutions are currently coordinating efforts to improve the internal control environment in entities responsible for Bank-financed operations in Honduras. In this specific case, the executing agency will perform its fiduciary functions with the support of the PCU created for this purpose, within the framework of the operations financed by the Bank in the sector and consistent with the program Operating Manual in force.
- 8.5 **Financial supervision plan.** The Bank will supervise the financial management of the project by monitoring the actions of the executing agency in order to resolve any issues identified in the external audits. The Bank will also organize visits and meetings to monitor implementation of the recommendations of external audits and monitor fiduciary risks.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/18

Honduras. Nonreimbursable Investment Financing GRT/\_\_\_-\_\_\_\_-HO  
Rural Electrification Program in Isolated Areas

The Board of Executive Directors

RESOLVES:

That the President of the Inter-American Development Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank as implementing entity of the Strategic Climate Fund (SCX), to enter into such agreement or agreements as may be necessary with the Republic of Honduras, as Beneficiary, for the purpose of granting it a nonreimbursable investment financing for a sum of up to US\$6,420,000 chargeable to the resources of the Scaling Up Renewable Energy Program in Low Income Countries (SREP) of the Strategic Climate Fund (SCX), and to adopt any other measures as may be pertinent for the execution of the project proposal contained in document PR-[\_\_\_\_\_].

(Adopted on \_\_\_\_ 2018)

## Rural Electrification Program in Isolated Areas

HO-G1247

### CERTIFICATION

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the operation received the letter of commitment for financing by the **Strategic Climate Fund (SCX)** for up to **US\$6,420,000** confirmed by Goritza Ninova (ORP/GCM), September 20, 2018.

Certified by:

Original Signed

10/26/2018

\_\_\_\_\_  
Sonia M. Rivera

\_\_\_\_\_  
Date

Chief

Grants and Co-Financing Management Unit  
ORP/GCM