

Cover Page for Project/Program Approval Request			
1. Country/Region:	Honduras	2. CIF Project ID#:	XSREHN079A
3. Source of Funding:	<input type="checkbox"/> FIP	<input type="checkbox"/> PPCR	<input checked="" type="checkbox"/> SREP
4. Project/Program Title:	ADERC – Transmission (Phase 2)		
5. Type of CIF Investment:	<input checked="" type="checkbox"/> Public	<input type="checkbox"/> Private	<input type="checkbox"/> Mixed
6. Funding Request in million USD equivalent:	<i>Grant:</i>	<i>Non-Grant:</i> 5.000	
7. Implementing MDB(s):	Inter-American Development Bank (IDB)		
8. National Implementing Agency:	Empresa Nacional de Energía Eléctrica (ENEE)		
9. MDB Focal Point and Project/Program Task Team Leader (TTL):	<i>Headquarters- Focal Point:</i> Claudio Alatorre (calatorre@iadb.org)	<i>TTL:</i> Carlos Jácome (carlosgja@iadb.org)	
10. Project/Program Description (including objectives and expected outcomes):			
<p><b>Fit with the Investment Plan of Honduras</b></p> <p>The original <a href="#">SREP Investment Plan</a> (IP) for Honduras, endorsed by the SREP Sub-Committee on November 4<sup>th</sup>, 2011, included the <a href="#">Grid-Connected RE Development Support Component</a> (<i>Apoyo al Desarrollo de las Energías Renovables en Conexión con la Red</i>, ADERC), with a total resource allocation of USD16.7 million. This component was in turn divided into generation and transmission subcomponents. A Project Preparation Grant of USD 0.5 million was approved by the SREP Sub-Committee in June 2015.</p> <p>The <a href="#">Revised SREP Investment Plan for Honduras</a>, endorsed by the SREP Sub-Committee on April 28, 2017, explained that Honduras has experienced an accelerated development of grid-connected non-conventional RE capacity (partly with the support of SREP and CTF resources), and that, in the current context, transmission has become a bottleneck for further RE development. The GoH proposed therefore reallocating resources previously allocated to RE generation and policy development to focus on this strategic priority.</p> <p>The ADERC transmission project has a total indicative allocation of USD 12.5 million. This includes: (i) the USD 0.5 million PPG that was approved in 2015; (ii) USD 7 million in grant resources for Phase 1 (approved in August 2017), and (iii) USD 5 million in reimbursable resources for Phase 2 (the project hereby submitted).</p> <p><b>Program Background and Description</b></p> <p>The Government of Honduras has requested a loan with a total amount of USD 155 million (HO-L1186) “Support to the National Electric Power Transmission Program”, which is expected to be approved in July 2018. This amount includes USD 150 million of IDB’s Ordinary Capital resources, and USD 5 million of reimbursable SREP resources (ADERC Transmission Phase 2).</p> <p>This operation will finance transmission infrastructure in the Northern part of the country, aimed at increasing the commercialization of energy in the Regional Electricity Market, as well as the share of RE in the generation matrix. SREP resources will allow reaching the results of the project</p>			

related to the increase of RE installed capacity and the reduction in the curtailment of existing RE capacity.

Transmission infrastructure to be financed by this operation includes the construction and conversion of transmission lines and the construction and expansion of substations in the Northern and Central areas of the country, as well as the commissioning of capacitive compensation banks in the transmission network. Substation extensions will be carried out on land owned by the ENEE, which, due to good practice, usually acquires a larger than required area, contemplating expansions. The works will allow to: (i) strengthen the capacity of the National Interconnected System (SIN) to decongest the overload of several substations at the national level and improve the quality of service; (ii) meet the growing energy demand and contribute to the economic development of the country; (iii) optimize the SIN towards an economic and efficient dispatch; (iv) increase the participation of RE in the generation matrix; and (v) partially comply with Honduras’ commitments to finance the reinforcement of the SIN to enhance the operation of SIEPAC. Other components to be carried out with IDB resources are ENEE’s institutional strengthening (including the Environment Directorate and management of the Transmission business unit, and developing “ENEE’s Corporate Gender Policy”), as well as other costs, such as Project Coordination Unit staff, external audits, environmental supervision, and midterm and final evaluations.

**11. Consistency with SREP Investment Criteria:**

(a) Increased installed capacity from RE sources	The project will facilitate access of 70 MW of clean renewable energy sources (PV, wind, and biomass) to the grid. The results indicator (GWh/ year) refers to the additional generation that will be made possible because of the transmission investments, as compared to the current situation, where approximately 8% of the generation from these power plants is curtailed due to the transmission bottleneck.
(b) Increased access to energy through RE sources	Investments in transmission infrastructure will pave the way for further investments in distribution to reach the GoH’s goal of universal access to electricity. Areas that are geographically close to the intervention zone will be prioritized.
(c) Low Emission Development	The <a href="#">Nationally-Determined Contribution (NDC) of Honduras</a> to the UNFCCC includes the energy sector as part of its mitigation objectives.
(d) Affordability and competitiveness of renewable sources:	Strengthening of the transmission system will allow lower cost energy to be dispatched in an optimal fashion. It will also allow RE generation located in various parts of the country to be connected to the SIN. It will facilitate integration of RE generation projects located in the center and north of the country that have prices that do not affect ENEE’s finances.
(e) Productive use of energy	The Northern region is the industrial and commercial heart of the country. The main uses of energy in industry are for textile production and <i>maquilas</i> , as well as food processing industry. In the <i>Litoral Atlántico</i> region, the tourism industry is prevalent. The transmission improvements will enable better access to electricity to these industries.

<p>(f) Economic, social and environmental development impact</p>	<p>The main development impacts of this operation will be:</p> <ul style="list-style-type: none"> <li>• The increase in the participation of renewable energy generation in the national grid, which leads to a reduction in the imports of fossil fuels.</li> <li>• Technical and Institutional capacity allowing Honduras to effectively participate in the SIEPAC/MER.</li> <li>• Improving the quality of service of electricity in the Northern and <i>Litoral Atlántico</i> regions, that are strategic for the economy in terms of employment generation. It will also improve the quality of service in the central region where governmental activities take place.</li> <li>• Supporting the operational and financial recovery of ENEE.</li> <li>• The generation of at least 1,200 direct jobs.</li> <li>• Promotion of gender participation in the power sector not only at ENEE level but also in other power entities.</li> </ul> <p>From the Environmental perspective, the investments will not affect natural habitats or indigenous peoples and are, therefore, considered of low complexity. A continuous socialization program will take place to keep the communities informed.</p>
<p>(g) Economic and financial viability</p>	<p>An economic and financial analysis was performed for the Program HO-L1186, including the US\$5 million of SREP resources of this second phase. ENEE performed a technical solution alternatives analysis for each of the projects identified as critical to ensure the quality, safety and reliability of the electricity supply to the areas of influence, in the short term. The cost and profitability of each one was evaluated, selecting the most economical alternative among those that achieve the technical solution that is sought. To these selected minimum cost solutions, an economic evaluation was performed to verify their viability.</p> <p>Based on the selected options, an economic evaluation was performed. Results for each project verified the economic benefits of the selections made to strengthen the transmission system, making it more robust and reliable, which in turn allows improvements in productivity and improvements in quality of life. The results show: (i) Project TL SPSS-SBV presents an Economic Internal Rate of Return (EIRR) of 58% and Economic Net Present Value (ENPV) of USD 276.8 million and (ii) Project TL Laínez-Miraflores presents an EIRR of 108.1% and ENPV of USD 87.8 million.</p>
<p>(h) Leveraging of additional resources</p>	<p>See below (section 15)</p>
<p>(i) Gender</p>	<p>See below (section 13)</p>

(j) Co-benefits of renewable energy scale-up	See paragraphs above
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**12. Stakeholder engagement:**

An Environmental and Social Analysis (ESA) and an Environmental and Social Management Plan (ESMP) of a representative sample of the project were prepared. They are both published on the IDB's website. The mitigation measures for each project of the representative sample are described in their respective Environmental Impact Assessment for each project. For projects outside the sample the ESMF will be used. The design of the TL of the sample has avoided the need for resettlement of people or structures by changing the layout of each TL, after carrying out an analysis of alternatives. For the TL SPSS-SBV, an Asset Compensation Plan was prepared to mitigate the impacts resulting from the acquisition of rights of way. It has been verified that this operation does not affect the indigenous populations, despite the fact that the presence of indigenous populations has been reported in the area of influence of the project. No critical natural habitat has been identified in the area of influence of the sample and the impact to natural habitats is not significant since TL and ES will be constructed in areas previously intervened by productive activities or urbanization. Therefore, no compensation programs are required. The operation will not result in a significant use of water or other natural resources, or in generation of significant volumes of hazardous waste or GHG. As a requirement of the Loan Agreement, occupational and community health and safety risks will be handled with good industrial practices and the design and appropriate location of the facilities with respect to populated areas.

The operation can fully comply with ESMP IDB policies as long as the environmental and social requirements of the Loan Agreement and the actions described in the SEMP are executed for the sample projects. In the case of projects outside the sample, it will be necessary to apply the provisions of the ESMF including, if required, resettlement plans and indigenous peoples' plans. The subprojects of the sample have Environmental and Social Assessments and SEMP. Both these and the ESMFs have been published on the Bank's website. The process of significant consultations will finish in May 2018 for the work sample. The results of each of the significant consultations has been documented in a consultation report, attached to the final versions of the Environmental and Social Assessments and ESMPs of the sample projects. All this must be finalized before the Bank's Operating Policies Committee. The risk of natural disasters is classified as moderate. Natural hazard maps show that the only high risks are droughts and periods of high temperatures. Considering the presence of seasonally dry forests in the proposed layout of the SPSS-SBV TL, there is a risk of exacerbation of forest fires if good practices are not applied to prevent and control of fires in construction and maintenance activities in times of drought.

**13. Gender considerations:**

The Phase 2 will also promote equal access opportunities to men and women during recruitment of labor for works for the Project TL SPSS-SBV and Project TL Laínez-Miraflores. Likewise, equitable access in management, and participation in consultation and complaints spaces will be ensured.

Phase 2 operation (HO-L1186) in the “Component II” has gender inclusion activities, such as: (i) development of “ENEE’s Corporate Gender Policy” to promote gender equality within the priorities, structure and goals of the institution. A gender analysis of the ENEE is expected to identify the barriers of women to enter the sector and specifically the company, carry out a pilot plan with concrete actions directed to promote the inclusion of a gender focus in the institutions selected for the strategy and to implement gender policy at a corporate level (Proposal of Gender Intervention) and (ii) the new Energy Secretariat as part of the effort to promote the inclusion of the gender approach in the entire electric sector will create the Gender and Multiculturalism Unit, seeking to determine policies to strengthen gender interventions in the sector.

**14. Indicators and Targets (consistent with results framework):**

<b>Core Indicators (including Phase 1 and Phase 2)</b>	<b>Target</b>
(a) GHG emissions reduced or avoided over lifetime (tons of CO <sub>2</sub> -eq)	940,000 <sup>1</sup>
(b) Annual GHG emissions reduced or avoided (tons of CO <sub>2</sub> -eq/year)	47,000 <sup>2</sup>
(c) Increased supply of renewable energy due to avoided curtailment (GWh/year)	70 <sup>3</sup>
<i>Development Indicator(s):</i>	
Share of renewable energy generation over total energy generation in the national grid (currently 49%)	53%

**15. Co-Financing (including Phase 1 and Phase 2):**

	<i>Amount (in USD million):</i>	<i>Type of contribution:</i>
• Government		
• MDB (IDB)	150	Loan
• Private Sector (please specify)		
• Bilateral (please specify)		
• Others (please specify)		
<b>Co-Financing Total:</b>	150	

**16. Expected Board approval date:**

July 2018

<sup>1</sup> Assumes a lifetime of 20 years.

<sup>2</sup> Assuming a combined margin grid emissions factor of 0.67 tCO<sub>2</sub>e /MWh for Honduras based on Clean Development Mechanism estimates.

<sup>3</sup> The capacity connected the substations is 120MW from wind, 18MW from Biomass, and 242MW from solar PV; approximate capacity factors are 25% for solar PV and wind, and 50% for biomass. Current curtailment is approximately 8% of generation.

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

## **HONDURAS**

### **SUPPORT TO THE NATIONAL ELECTRIC POWER TRANSMISSION PROGRAM**

**(HO-L1186)**

#### **PROPOSAL FOR OPERATION DEVELOPMENT**

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1. Development Effectiveness Matrix (DEM) - Summary
2. Fiduciary Agreements and Requirements
3. Development Effectiveness Matrix (DEM)
4. Pluriannual Execution Program (PEP) and Annual Operating Plan (AOP)
5. Monitoring and Evaluation Plan
6. Environmental and Social Management Report (ESMR)
7. Procurement Plan (PP)
8. Economic Analysis of the Project
9. Environmental and Social Management Framework (ESMF)
10. Compliance Analysis of the Domiciliary Public Services Policy
11. Technical profile of the project sample. San Pedro Sula Sur-San Buenaventura Transmission Line
12. Technical profile of the project sample. Enlargement of substations Láinez and Miraflores and Construction of 5 km Transmission line
13. Draft of the Program Operating Manual
14. Gender Intervention Proposal
15. Analysis of Contribution to Competitive Regional Integration
16. Disbursement Plan by Component and Products
17. Analysis of ENEE's Institutional Capacity
18. Risk Matrix



<b>ABBREVIATIONS</b>	
AOP	Annual Operating Plan
BAU	Business as Usual
BSC	Bank's Strategy with the Country
CIF	Climate Investment Funds
CREE	<i>Comisión Reguladora de Energía Eléctrica</i> (Electricity Regulatory Commission)
EA	Environmental Agency
EEH	Empresa Energía Honduras
ENEE	Empresa Nacional de Energía Eléctrica
ES	Electric Substation
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
ESMR	Environmental and Social Management Report
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GLEI	General Law of the Electric Industry
GoH	Government of Honduras
IDB	Inter-American Development Bank
IRER	Internal Rate of Economic Return
IRR	Internal Rate of Return
MER	<i>Mercado Eléctrico Regional</i> (Regional Electricity Market)
NCRE	Non-Conventional Renewable Energy
NPV	Net Present Value
PCU	Project Coordination Unit
POM	Program Operating Manual
PP	Procurement Plan
RE	Renewable Energy
SBV	San Buenaventura
SIEPAC	<i>Sistema de Interconexión Eléctrica de los Países de América Central</i> (Electrical Interconnection System of Central America Countries)
SIN	<i>Sistema Interconectado Nacional</i> (National Transmission System)
SO	System Operator
SPF	Safeguard Policy Filter
SPSS	San Pedro Sula Sur
SREP	Scaling Up Renewable Energy Program in Low-Income Countries
SSF	Safeguard Screening Form
TC	Technical Cooperation
TL	Transmission Line

**PROJECT SUMMARY**  
**HONDURAS**  
**SUPPORT TO THE NATIONAL TRANSMISSION PROJECT**  
**(HO-L1186)**

Financial Terms and Conditions			
<b>Borrower:</b> Republic of Honduras	Flexible Financing Facility <sup>(a)</sup>		
	<b>IDB (Ordinary Capital-Regular OC)</b>	<b>US\$</b>	<b>%</b>
<b>Executing Agency:</b> Empresa Nacional de Energía Eléctrica (ENEE)	<b>IDB (Concessional OC)</b>	90,000,000	58.1
	<b>SREP</b>	60,000,000	38.7
	<b>Total</b>	5,000,000	3.2
		155,000,000	100.0
	<b>Regular OC (FFF)<sup>(a)</sup></b>	<b>Concessional OC</b>	<b>SREP<sup>(d)</sup></b>
<b>Amortization Period:</b>	20 years	40 years	40 years
<b>Disbursement Period:</b>	6 years		
<b>Grace period:</b>	6.5 years <sup>(b)</sup>	40 years	10 years
<b>Interest rate:</b>	LIBOR based	0.25%	0.1
<b>Credit Fee:</b>	(c)	N/A	N/A
<b>Inspection and supervision fee:</b>	(c)	N/A	N/A
<b>Weighted Average Life (WAL):</b>	15.25 years <sup>(b)</sup>	N/A	N/A
<b>Currency of approval:</b>	US Dollars charged to CO		
Project at a Glance			
<p><b>Project objective:</b> The general objective of the project is to reinforce the National Transmission System (SIN) through the financing of priority works of ENEE's investment plan. The specific objectives are: (i) to strengthen the interconnection capacity with the MER to enhance the use of the Electrical Interconnection System of Central American Countries (SIEPAC); (ii) improve ENEE's financial sustainability and institutional capacity; (iii) improve transmission quality by increasing the reliability of the electric service; and (iv) facilitate the transportation of electricity generated with Renewable Energy (RE) projects to the SIN.</p>			
<p><b>Special contractual clauses prior to the first disbursement of the loan:</b> (i) approval of the Program Operating Manual (POM) under the terms previously agreed with the Bank (¶3.5); and (ii) see environmental and social conditions in the Environmental and Social Management Report (ESMR).</p>			
<p><b>Special contractual clauses of execution:</b> see environmental and social conditions in ESMR.</p>			
<p><b>Exceptions to Bank policies:</b> None</p>			
Strategic Alignment			
<b>Challenges<sup>(e)</sup>:</b>	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input checked="" type="checkbox"/>
<b>Cross-cutting themes<sup>(f)</sup>:</b>	GD <input checked="" type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>

<sup>(a)</sup> Under the Flexible Financing Facility (FN-655-1), the Borrower has the option to request modifications to the amortization schedule as well as currency and interest rate conversions. In considering such requests, the Bank will take into account operational and risk management considerations.

<sup>(b)</sup> Under the flexible repayment options of the Flexible Financing Facility (FFF), changes in the grace period are possible provided that the Original Weighted Average Life (WAL) of the loan and the last payment date, as documented in the loan agreement, are not exceeded.

<sup>(c)</sup> The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's financial charges, in accordance with the relevant policies.

<sup>(d)</sup> Scaling up Renewable Energy Program (SREP) of the Climate Investment Fund – CIF). The CIF was approved by GN-2604-3 and its Financial procedure Agreement was executed with the World bank on February 17, 2011. According to SREP's *Financing Modalities*, during years 11 to 20, 2% of the principal will be paid each year and during the years 21 to 40, 4% of the principal will be paid each year.

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

<sup>(f)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

## I. PROJECT DESCRIPTION AND RESULTS MONITORING

### A. Background, Issues and Justification

- 1.1 **Legal and institutional framework of the electricity sector.** The legal and regulatory framework of the sector is defined by the General Law of the Electricity Industry (GLEI) in force since July 2014. This law is aimed at strengthening the institutional, regulatory and operational capacities of the sector, improving its financial sustainability and reducing its tax impact. Since the entry into force of the GLEI, a reformation process began (¶1.16) which established an institutional structure that includes a Secretary of Energy as the entity responsible for the formulation of energy policies and strategic planning; the Regulatory Commission of Electric Energy (CREE) as regulator and responsible entity for the enactment of regulations for the modernization of the sector and development of the electricity market; and a System Operator (SO) responsible for guaranteeing the continuity and security of the electricity supply, the correct coordination of the generation and transmission system at minimum cost, and the review and approval of the transmission expansion plan.
- 1.2 As part of the reformation process, the restructuring and modernization of the National power utility - ENEE was achieved, seeking to split it into business units through the formation of the ENEE Group composed of the ENEE Holding and the Transmission, Generation and Distribution Companies. The reformation led to the formulation and implementation of a tariff scheme that allows recovering the supply chain costs of the electricity industry, focusing subsidies and implementing good corporate practices to attract investment without incurring in financial incentive schemes that have caused finances to weaken in the past. As part of the results of this process, the reduction of ENEE's contribution to the consolidated deficit of the public sector in relation to the Gross Domestic Product (GDP) should be noted, going from 1.8% (2013) to 0.6% (2017) and the reduction of the loss index of the electricity sector from 31.3% (2013) to 27.3% <sup>1</sup>(2017). The GLEI seeks the adoption of energy policies aligned to the diversification of the energy matrix, promoting the use of Renewable Energy (RE), the efficient use of energy and a more active participation of Honduras in the Regional Electricity Market (MER).
- 1.3 ENEE owns almost all the transmission and distribution systems in the country and 15.4% of the electricity generation installed capacity. The participation of the private sector is 79.1% of the generation nationwide through the subscription of power purchase agreements with ENEE. The MER contributes 3.7% of the energy supply. As a result of international competitive bidding promoted by the Commission for the Promotion of Public-Private Alliances, the distribution sector selected the investor and private operator of the distribution system, Empresa Energía Honduras (EEH), a Colombian-Honduran consortium that manages ENEE's assets since August 2016.
- 1.4 **Diversification of the electrical matrix.** Honduras is characterized by having high dependence on the use of petroleum derivatives. In 2016, the cost of importing petroleum derivatives reached 5.5%<sup>2</sup> of the GDP, the highest percentage in

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<sup>1</sup> The 4% reduction in losses occurred in the first year of operation of the contract with EEH. Report of the independent consultant Manitoba Hydro International.

<sup>2</sup> Central America and Dominican Republic, [hydrocarbon statistics, 2016](#). CEPAL

- Central America. These are used mainly in the transportation sector, followed by thermo-electrical generation. In 2017, the total installed generation capacity was 2,571 Mega-Watts (MW) and the energy supply reached 8,957 Giga-Watt-hours (GWh), supplied as follows: 37.4% by thermal generation, 20.6% by hydraulic, 38.4% by Non-Conventional Renewable Energy (NCRE) and 3.7% of the MER.
- 1.5 Investments in NCRE have developed as a result of the issuance of the Law of Incentives for Electricity Generation with NCRE Sources (2007). NCRE's installed capacity increased from 98MW in 2007 to 1,116MW in 2016, increasing its share in the generation matrix from 5% to 38%. Currently, there are operating generation projects of NCRE, hydroelectric, wind, photovoltaic solar, biomass and a geothermal plant. ENEE has made progress in the construction of the Patuca hydroelectric project (104MW)<sup>6</sup>, estimating that its operations will begin during the second quarter of 2018. The development of renewable generation contributes to the 2022 Nation Plan<sup>3</sup> and the 2010-2038 Country Vision, whose participation targets of REs in the generation matrix are 60% in 2022 and 80% in 2038.
  - 1.6 **The National Transmission System (SIN).** The SIN has a total of 2,616 kilometers (km) of Transmission Lines (TL): 1,213km with a 230kV capacity; 832km of 130kV; and 571km of 69kV. The SIN has 74 Substations (SS): 19 in 230kV; 36 at 138kV; and 19 in 69kV. The capacity of the SS is based on the distance between the production centers and the destination of electricity; and the demand for electricity.
  - 1.7 According to the configuration of the SIN, the transmission system links the southern part of the country which mostly concentrates thermal generation and NCRE, with the north, the area of greatest industrial and commercial demand in the country.<sup>4</sup> The northern zone covers the Atlantic coast, a tourist development area. The SIN crosses the country's main hydroelectric plant, "El Cajón", co-financed by the IDB. Until July 2014, only the State could invest in the SIN. The long standing fragile financial situation of ENEE hindered investments to modernize and expand the SIN, resulting in lack of investment, thus limiting the attention of the increasing expansion needs of the SIN to guarantee the reliability of the electricity supply, the quality of the service, the connection of new generation projects with NCRE, the reduction of technical losses and the timely fulfillment of investment commitments in the Electrical Interconnection System of Central American Countries (SIEPAC). In order to meet the needs of transforming and transmitting energy to critical points of the SIN, ENEE has resorted to the rental of "temporary", mobile ES services that allow it to address the problem at the moment, at a high cost and sometimes for medium term periods, resulting in costs that could have financed permanent solutions such as the construction of new ES with ENEE's standards.
  - 1.8 In order to promote private investment in transmission and using the trust created for that purpose, two international public bidding processes were carried out for the selection of investor-operators. These processes failed to attract interest due to the small progress of the reform process, the lack of an appointed regulator or regulations. In addition, Honduras does not offer a climate in which to recover long-

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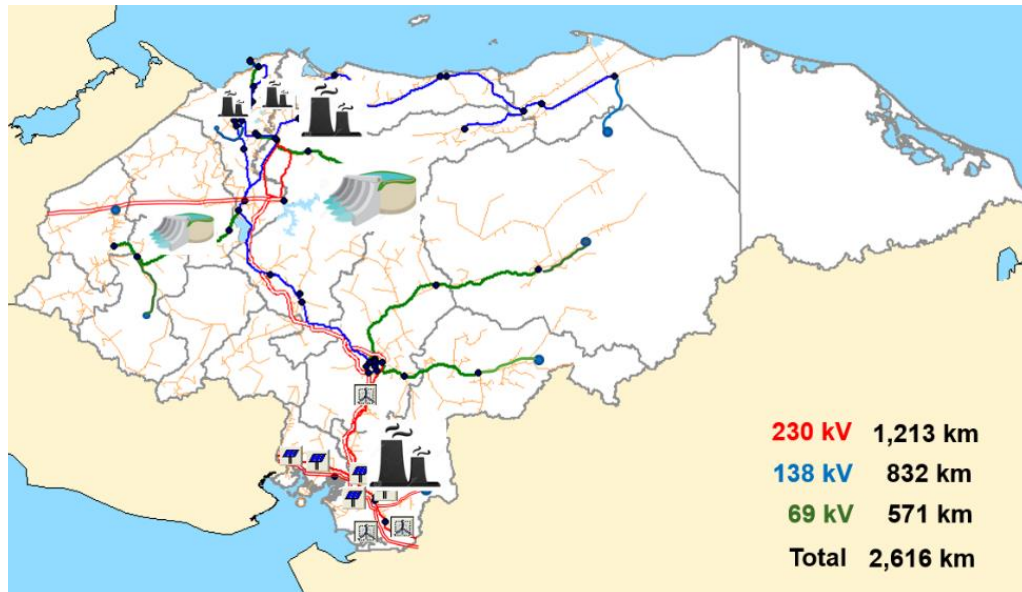
<sup>3</sup> [Legislative Decree No. 286-2009 de 2010](#), approves the 2010-2038 Country Vision and the 2022 Nation Plan.

<sup>4</sup> According to the National Household Survey of the Honduran Institute of Statistics and Census, in 2016 the Department of Cortés located in the northern area, concentrates 47% of the economically active population that works in the industrial sector.

term investments. The government decided that this type of call, at the beginning of the reform process, would hinder the identification of an operator-investor until ENEE's regulatory issues and financial recovery were resolved and, particularly, the results of the non-technical losses reduction program.

- 1.9 The limitations of the transmission and transformation capacity saturate the SIN facilities, causing service interruptions, damages to the facilities and economic losses, both to the ENEE and to the national productive system. The inadequate expansion and development of transmission infrastructures constitutes one of the main obstacles to integrate new NCRE sources to the SIN and creates bottlenecks in the SIN. The main obstructions are concentrated in the areas of greatest demand: the Sula Valley and the Central District and in the SE Progreso that feeds the north and the Atlantic coast. In the case of the San Pedro Sula Sur (SPSS) - San Buenaventura (SBV) line, the failure of this infrastructure in the SIN causes the energy dispatch to be inefficient and the estimates of the system operator report a US\$ 20,5 million loss for the current year.

**Figure 1: National Transmission System**



- 1.10 ENEE's Strategic Expansion Plan<sup>5</sup> estimates that currently the investment requirements in transmission infrastructure exceed US\$ 425 million (2.3% of GDP). The vulnerability of the transmission network due to its age and the saturation of transformation equipment, added to the growth of energy demand, particularly affect regions such as the northern zone and the Atlantic coast.
- 1.11 The recent diversification of NCRE generation, mainly wind and solar energy, has had a larger concentration in the southern area. The growth of the installed NCRE capacity of generation in the last three years grew 80% annually, without

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<sup>5</sup> ENEE's strategic expansion plan

accompanying investments in the SIN<sup>6</sup>. This generation has limited the dispatch of thermal and renewable energy in an economic and efficient manner from the southern area due to the limited transmission installed capacity to serve the northern and the central area of the country's highest commercial and population growth. To dispatch electricity from south to north, there is a single TL with 230kV capacity, connecting the Agua Caliente SS in the south with the Progreso SS in the north. The limited capacity of this electrical infrastructure presents additional transmission restrictions in the north, where TL of greater capacity only reaches 138kV.

- 1.12 Taking into account the urgency of performing works in the SIN, many of them contemplated a decade ago, the Government of Honduras (GoH) decided to finance the investments deemed priority and strategic for the development of the SIN and to appoint ENEE Transmission as operator. The CREE drafted the legislation, an element of the programmatic series of reforms (¶1.17) that will allow the participation of the private sector in the financing, construction and operation of SIN segments.
- 1.13 **The integration of Honduras in the MER.** Honduras is part of the MER. Through the SIEPAC, it has connections with Guatemala and El Salvador. The connection between Honduras and Guatemala is made through the Panaluya (GU) - San Buenaventura (HN) section. Loan 3103 / BL-HO finances the construction of SS La Entrada, which began commercial operations in August 2017, is connected to the Panaluya-San Buenaventura section and supplies the needs of the Western zone of the country through purchases in the MER. Honduras is the second country in the region that buys more energy in the MER<sup>7</sup>. The average of energy purchased in the MER, both in the contract markets as well as in the opportunity markets, during 2014-2016 versus 2013, had a 90% increase. Honduras' electricity trading capacity with the MER could have been higher, but it is limited by a lack of national reinforcements in the SIN<sup>8</sup>. Ensuring future energy transactions between Honduras and the MER depends on the execution of these reinforcement works, pursuant to the conditions and standards of the SIEPAC<sup>9</sup>.
- 1.14 **Gender perspective.** Currently, the ENEE has 2,112 employees of which 33% are women who hold administrative and technical positions. Only 6% of

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<sup>6</sup> The increase in the participation to renewable energies generates a challenge amount to the transmission system of the country, as demonstrated in the "Study of reserves of balance and control of the tension for the integration of renewable resources in Honduras" prepared in 2016 by the State Department of the Government of the United States. This study observed that tension problems in the northern part of the Honduras network worsened when the generation of solar energy increases. Although this part of the network is far from the generation of solar energy, it is affected because the generation of solar energy displaces a more expensive generation in the north, so the network loses part of the support of the voltage that is so necessary and that these displaced resources provide. Another factor affecting the voltage levels in the north is that the increase in solar generation in the south increases the flow of power through the south-north corridor from Agua Caliente 230kV to Progreso 230kV and through a network 138kV to San Pedro Sula, which reduces the tension even more in the north.

<sup>7</sup> The economic benefits obtained by Honduras between June 2013 and December 2015 as a result of the transactions (imports and exports) made in the MER, amounted to US\$ 68.1 million. [Integración Eléctrica Centroamericana – Genesis, beneficio y prospectiva del Proyecto SIEPAC. IDB 2017.](#)

<sup>8</sup> Honduras requires investments in the order of US\$ 90 million to enhance the SIEPAC capacity. According to the MER Board of Directors, it is the country with the highest investment requirement.

<sup>9</sup> National reinforcements are those works of the SIN that are necessary in a country to enable the transportation of electricity internationally through the SIEPAC in accordance with the conditions and standards for which it was designed. The need to carry out SIEPAC reinforcements and develop agreements to enhance the use of the regional electricity market was raised at a high-level meeting in Washington DC on April 17, 2018.

- management leadership positions within the institution are held by women and 19% in management and sub-direction positions. ENEE recognizes that including a gender perspective in the entity would facilitate the promotion of gender equality in the sector and would play an essential role in the promotion of gender equality, leading policies and projects of the sector and improvements in the quality of life of the population.
- 1.15 **Strategy of the Bank with the Country (SBC).** The program is part of the Country Strategy with Honduras (EBP) 2015-2018 (GN-2796-1) through the IDB's strategic objectives of: (i) improving the efficiency and quality of the electric service and diversification of the generation matrix; and (ii) increase access to the electricity service; its expected results of: (a) reducing technical and non-technical losses of electric power transmission and distribution; (b) improving service quality by reducing interruptions of the electricity supply; (c) improving and expanding the transmission system at a national level; (d) increasing the transaction volume of the regional electricity market; and (e) increasing electricity coverage nationwide. In addition, the program is aligned with two transversal areas of application: (i) a focus on gender and development with identity; and (ii) climate change and disaster risk management, by promoting the design and implementation of a policy and an action plan that promotes ENEE's labor equity and by financing the electric infrastructure that develops the country's renewable energy generation capacity. The program is part of the revitalization axis for the productive sector of the Alliance Plan for the Northern Triangle Prosperity, by promoting strategic investment sectors; modernizing and expanding infrastructure, facilitating the reduction of energy costs and improving the power services reliability. The operation is included in the Operative Program 207 Report (document GN-2884). The Bank considers that the reform progress of the sector has been significant. To date, two programmatic operations have been approved in support of structural reforms to the sector (3386 / BL-HO and 3619 / BL-HO), where measures are taken for reforms and sector policies aimed at improving financial sustainability, operational efficiency and security of electricity supply.
- 1.16 **Knowledge of the sector.** The Bank has extensive knowledge of the Honduran electricity sector resulting from its support in generation, transmission and distribution since 1980. Currently, the Bank executes two transmission operations with the ENEE: Support to Honduras for Integration in the MER (3103/BL-HO) approved in 2013, under which SS La Entrada was built; and Repowering of the Cañaveral Rio Lindo Hydroelectric Complex (3435/BL-HO) approved in 2015, both operations executed by the ENEE. The Bank also supports the structural reform program of the sector through technical assistance and a series of three programmatic loans based on policies 3386 / BL-HO, 3619 / BL-HO and 4448 / BL-HO, of which the first two have been approved and disbursed in 2014 and 2015. The third was approved in December 2017, its disbursement is pending. The Bank's programs in the country have contributed to: (i) increase the commercialization of energy between the country and the MER, (ii) increase the installed power from RE sources, (iii) improve the reliability of the transmission system, and (iv) strengthen the management and planning capacity of the sector by the ENEE.
- 1.17 The Bank has been executing Technical Cooperations (TC) that will serve as an input for the activities to be developed within the framework of this operation. The Bank provides TC to the government and timely technical assistance to the ENEE

in the process of improving the operational efficiency of the sector, through continuous dialogue and specialized technical assistance in studies that allow strengthening the financial and planning capacity of the sector. The program shall benefit from the TC ATN/SX-16689-HO, with resources from the Program for the Promotion of Renewable Strategies in the Netherlands (SREP), aimed at fostering financially sustainable policies and regulatory frameworks for the development of RE projects connected to the SIN.

- 1.18 **Lessons learned for the operation's design.** The development of operations in the transmission sub-sector has taken advantage of the technical solidity in terms of transmission planning and engineering that the executing agency has. The Project Coordination Unit (PCU), which incorporates staff from the executing agency and specialized consultants in the fiduciary area, has been fundamental for the correct execution of the operations and this scheme will be maintained in this program. This facilitates the preparation of technical and budget information and the bidding documents. In spite of the good technical capacity of the executing agency, it is considered important to verify the designs and budget of the operations with external consultants. The framework of loans 1584/SF-HO, 2016/BL-HO and 3103/BL-HO, incorporated the practice of external supervision during the execution of the works, which allows adequate contract management, avoids overpricing and time control and making modifications to benefit the operation's execution. From a socio-environmental perspective, the ENEE and the PCU need to strengthen their capacities, taking into account the social aspects of activities in the electricity sector that have caused different private generation projects to reduce the rate of investment due to their perceived risk of representing obstacles to project development. It is very important to provide support to the regulatory entity and municipal governments in order to contribute to the strengthening and adequate implementation and enforcement of the legislation. Another important aspect is that the preparation of investment operations has been accompanied by interventions to reform the sector, with the effect of restructuring the executing agency and reducing the number of employees. To address these changes, the work in coordination with the PCU was important, since the PCU has professionals in its structure that conform a stable specialized team for the preparation and execution of operations.
- 1.19 **Aggregate value of the new operation.** The operation will contribute to improve ENEE's financial sustainability by financing works that optimize the purchase of energy at national and regional levels, reduce transmission losses, improve the reliability of the system and make the connection of NCRE viable. In addition, regional commitments will be fulfilled and ENEE's capacities will be strengthened with respect to the management of transmission, gender and socio-environmental management. Optimization of financial and human resources will be achieved by using the PCU that has existing operations financed with Bank resources.
- 1.20 **Strategy of the country in the sector.** At the end of 2013, the GoH initiated the sector reform process, adopting measures to ensure its financial sustainability, operational efficiency and sufficient electricity supply; increase the participation of RE in the energy matrix and reaffirm its commitment to promote Mesoamerican energy integration. With the purpose of supporting this process, the GoH requested financing from the Bank for this program, which is aligned with the country's strategy, by strengthening ENEE's transmission infrastructure to enhance the use of SIEPAC, improve ENEE's financial sustainability, the reliability



of the system, contribute to dispatch the energy of NCRE projects in operation and development and improve the productivity of the most populated centers of the country.

- 1.21 The GoH, through the National Tentative Contribution of Honduras for the 2015 Paris Climate Agreement (INDC), is committed to reducing its emissions by 15% with respect to the business-as-usual (BAU) scenario for 2030<sup>10</sup>.
- 1.22 **Strategic alignment.** The program is consistent with the 2010-2020 (AB-3008) Institutional Strategy Update (UIS) and is aligned with the development challenges of: (i) productivity and innovation, by promoting the economic development of the beneficiary communities and the implementation of RE generation systems; (ii) social inclusion and equality, by facilitating access of the population to the electricity service; and (iii) economic integration, by modernizing the existing energy infrastructure facilitating the interregional commercialization of electric power. The program is aligned with the cross-cutting areas of: (i) institutional capacity and rule of law, by strengthening the technical and socio-environmental management capacities of the sector; (ii) gender equality and diversity, by promoting the design and implementation of a policy and action plan that promotes ENEE's labor equity; and (iii) climate change and environmental sustainability, by facilitating the use of RE with low CO<sub>2</sub> emissions, contributing to the mitigation of climate change.
- 1.23 The program is aligned with the priority areas of the Sustainable Infrastructure Strategy for Competitiveness and Inclusive Growth (OP-1012, GN 2710 5), by supporting the construction and maintenance of a socially and environmentally sustainable infrastructure that contributes to improve quality of life. The program is consistent with the Sector Energy Framework (GN-2830-3) in the thematic areas of sustainability and energy security, by promoting: the diversification of the energy matrix through the use of RE and the strengthening of the national and regional electrical system infrastructure. The program is consistent with the Sector Framework for Climate Change (GN 2835-3) since the proposed investments entail a reduction in Greenhouse Gas (GHG) emissions. It is estimated that 26.19% of the operation's resources are invested in climate change mitigation activities, according to the [joint MDB methodology for climate finance estimation](#). These resources contribute to IDB Group's goal of increasing financing projects related to climate change to 30% of all operations approvals by the end of the year 2020".
- 1.24 The program is consistent with the objectives of the Public Utilities Policy (GN-2716-6), and meets the conditions of financial sustainability and economic evaluation by demonstrating the sustainability and viability of the representative sample of the investments to be financed. (¶2.2). Based on the analysis of the sample, selection criteria was defined to ensure such sustainability of the works to be financed (¶1.28).
- 1.25 The proposed works are in line with the SREP Investment Plan for Honduras, which considers three components executed by the IDB: (i) strengthening of policies and regulatory framework for RE (US\$ 850,000); (ii) sustainable rural

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<sup>10</sup> BAU scenario of emissions projection based on economic growth, population and historical emissions trends in the absence of climate change policies. The scenario was constructed in 2015 taking the preliminary estimation of the series of quantified emissions during the preparation of the INDC as a starting point (1995-2012). [INDC-Honduras](#).

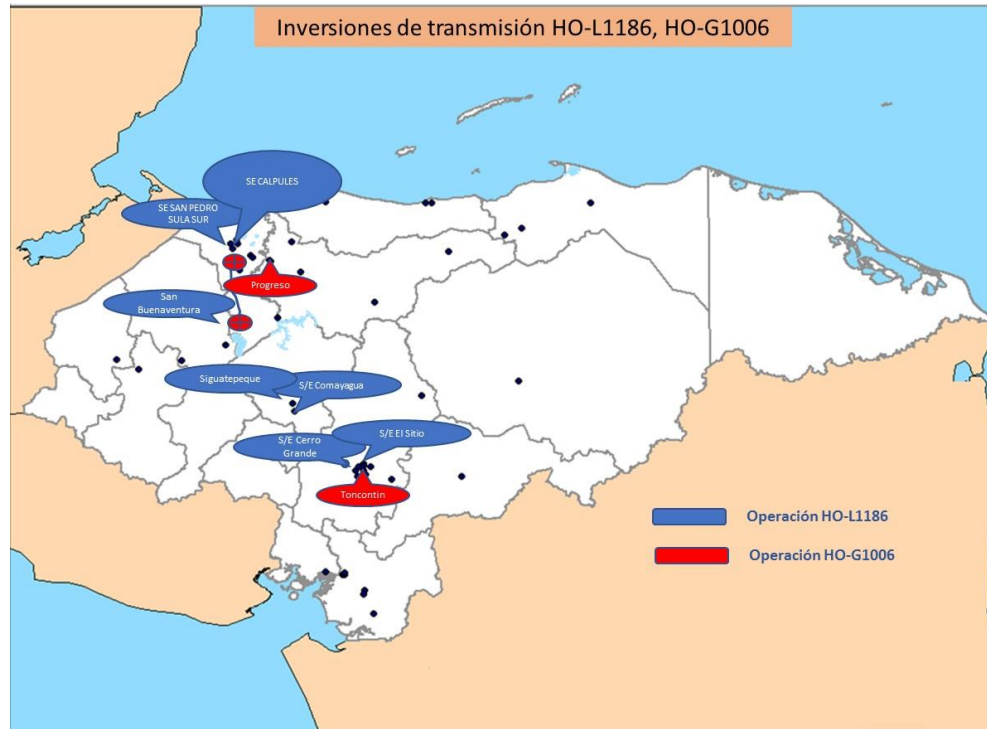
energization (US\$ 10,216,000); and (iii) Support for the Development of Renewable Energy Connected to the Network (US\$ 18,624,000). Additional works are part of Component III of SREP Investment Plan for Honduras, and contribute to its objectives of: (i) ensuring the connection of NCRE projects to the National Interconnected System (SIN); (ii) diversify the energy matrix; and (iii) comply with commitments to strengthen the national transmission system.

## **B. Objectives, Components y Cost**

- 1.26 **Objective.** The general objective is to reinforce the SIN through financing of priority works of ENEE's investment plan. The specific objectives are: (i) to strengthen the interconnection capacity with the MER to enhance the use of SIEPAC; (ii) improve ENEE's financial sustainability and institutional capacity; (iii) improve the quality of the transmission by increasing the reliability of the electric service; and (iv) facilitate transportation of electricity generated with RE projects to the SIN.
- 1.27 **Component 1: Expansion of transmission infrastructure (US\$ 146.42 million, US\$ 141.42 million IDB, US\$ 5 million SREP).** Activities will be developed to strengthen the infrastructure of the SIN and improve ENEE's financial sustainability through the construction and conversion of TL and the construction, expansion of SS in the northern and central areas of the country and commissioning of capacitive compensation banks in the transmission network. SS extensions are carried out on land owned by the ENEE, which, due to good practice, usually acquires a larger than required area, contemplating expansion. The works will allow: (i) to strengthen the capacity of the SIN to decongest the overload of several substations at a national level and improve the quality of service; (ii) meet the growing energy demand and contribute to the economic development of the country; (iii) optimize the SIN towards an economic and efficient dispatch; (iv) increase the participation of RE in the generation matrix; and (v) partially comply the Honduras' commitments to finance the reinforcement of the SIN to enhance the use of SIEPAC. Among the works to be financed, the following projects were identified in an advanced stage of preparation, forming a representative sample of the type of works subject to financing (paragraph 2.8) to be submitted to the full feasibility analysis for the program.:
- i. Northern area: (a) expansion of the SS SPSS, SBV; (b) reconstruction of the TL SBV-SPSS of 138kV on a new structure and installation simultaneously of a new circuit in 230kV 230kV (48km). The SS SPSS and SBV represent national reinforcements within the SIEPAC framework.
  - ii. Central area: (a) expansion of the substations Laínez and Miraflores; and (b) construction of the TL Laínez Miraflores in 138kV.
- 1.28 As a result of the sample analysis, it was determined that the additional works to be financed under this component must meet the following selection criteria, in addition to their consistency with the objectives of the program: (i) that the economic-financial analysis shows the achievement of an Internal Rate of Economic Return (EIRR) higher than 12%; (ii) meets the requirements established in the Environmental and Social Management Framework (ESMF) of the program included in the Environmental and Social Management Report (ESMR); (iii) has a socio-environmental rating of B or C; (iv) is located in the central and northern areas of the country; (v) classifies as construction work of a new ES, expansion of

an existing ES or repowering of TL; and (vi) that they are part of the priority works of the transmission expansion plan of the national government. There is a list of pre-identified priority works that could be subject to financing which is part of ENEE's expansion plan.

**Figure 2. transmission projects to be financed by the Bank**



- 1.29 **Component 2: ENEE's institutional strengthening (US\$6.46 million IDB).** Financing will be provided to activities destined to: (i) prepare and implement a communication strategy and corporate image, adopting good practices successfully implemented in the region; (ii); strengthen the Environment Directorate (DMA)<sup>11</sup>, through the design of a plan to strengthen the Environmental Directorate, the acquisition and training to use equipment and software, development of guidelines for the socio-environmental analysis of ENEE's projects, design of a social policy<sup>12</sup> that defines compensation and customer service (complaints and claims) mechanisms, hiring of specialized advisors on socio-environmental issues and purchase of vehicles for the environmental supervision of the projects; (iii) development of "ENEE's Corporate Gender Policy" to promote gender equality within the priorities, structure and goals of the institution. A gender analysis of the ENEE is expected to identify the barriers of women to enter the sector and specifically the company, and a gender policy at a corporate level (Proposal of Gender Intervention) will be implemented. Additionally, the new Energy Secretariat as part of the effort to promote the inclusion of the gender approach in the entire electric sector will create the Gender

<sup>11</sup> The EA depends directly on the Holding ENEE and provides technical and specialized services in environmental and social assessment to the ENEE's Generation, Transmission and Distribution companies.

<sup>12</sup> As part of the reform process, the Energy Secretariat incorporates a unit of social and environmental responsibility in its organizational chart which will provide guidelines to the agents of the sector, including ENEE.

and Multiculturalism Unit, seeking to determine policies to strengthen gender interventions in the sector; (iv) strengthen the management capacity with respect to planning, expansion implementation, operation and maintenance of the infrastructure to improve Empresa ENEE Transmission's financial and operational sustainability as a qualified actor to actively participate and compete in the national electricity market. Financial and accounting management capabilities will be developed for transparency and rendering of accounts through specialized technical advice, acquisition and development of software, valuation of fixed assets and hiring for ENEE's financial audits; (v) training for management, administration, operation and project logistics, effective communication and energy concepts; and (vi) specialized technical advice for hiring, monitoring and contract management.

- 1.30 **Other costs (US\$2.12 million IDB).** Financing shall be granted for the PCU staff, external audits, environmental supervision, and midterm and final evaluations. The costs associated with the program are detailed in Table 1.

**Table 1. Total Cost of the Program**

COMPONENT	IDB	SREP	Project
<b>I. Expansion of Transmission Infrastructure</b>	<b>141,421,400</b>	<b>5,000,000</b>	<b>146,421,400</b>
<b>Northern area</b>	<b>59,534,945</b>	<b>5,000,000</b>	<b>64,534,945</b>
ES Expansion	22,980,865	0	22,980,865
Construction of new ES	19,180,000	0	19,180,000
Construction LT 138kV	2,470,000	0	2,470,000
Repowering LT 230kV	14,904,080	5,000,000	19,904,080
<b>Central area</b>	<b>61,344,998</b>	<b>0</b>	<b>61,344,998</b>
ES Expansion	26,704,414	0	26,704,414
Construction of new ES	32,000,000	0	32,000,000
Repowering of TL	2,640,584	0	2,640,584
Acquisition and commissioning of capacitive compensation banks in the transmission network	5,000,000	0	5,000,000
<b>Unforeseen <sup>13/</sup></b>	<b>7,991,457</b>	<b>0</b>	<b>7,991,457</b>
<b>External project supervision</b>	<b>7,550,000</b>	<b>0</b>	<b>7,550,000</b>
<b>II. ENEE's Institutional Strengthening</b>	<b>6,458,600</b>		<b>6,458,600</b>
Strategic plan for ENEE's financial and operational sustainability	3,350,800	-	3,350,800
Communication strategy and corporate image	110,000	-	110,000
Strengthening of the Environmental Directorate	868,800	-	868,800
Gender Inclusion Pilot Plan at corporate level	494,000	-	494,000
Development of financial management and accounting capacities for transparency and rendering of accounts	540,000	-	540,000
Training in business management, administration and operation	325,000	-	325,000
Monitoring, contract management and procurement	770,000	-	770,000
<b>Other costs</b>	<b>2,120,000</b>		<b>2,120,000</b>
Executing Unit	1,100,000	-	1,100,000
External Audit	750,000	-	750,000
Environmental Audit	130,000	-	130,000

<sup>13</sup> Value determined by the executor based on the experience of previous operations.

Midterm and final evaluation	140,000	-	140,000
<b>TOTAL</b>	<b>150,000,000</b>	<b>5,000,000</b>	<b>155,000,000</b>

### C. Key result indicators

- 1.31 The achievement of the program’s objectives will be measured taking the indicators and goals presented in the Results Matrix shown in Table 2 as a reference.

**Table 2. Expected Results and Indicators**

Results	Indicator
Improvement of the transformation capacity in the central and northern Areas of the country	Northern area transformation capacity
	Central area transformation capacity
	Number of small, medium and large companies
Improvement of the quality and reliability of the transmission network of the central and northern Areas of the country	Energy not supplied due to faults of the transmission system in the northern area in one year.
	Energy not supplied due to faults of the transmission system in the central area in one year.
Increase of RE installed capacity	RE installed capacity
Increase of NCRE transmission due to avoided curtailment	NCRE transported in the SIN
Increase of purchase transactions in the MER	MER’s import capacity from Guatemala to Honduras
Improvement of the operational and financial capacity of ENEE’s Transmission Company	Improvement in the operating balance of the transmission company

- 1.32 **Beneficiaries.** The program will benefit all SIN users in its different consumer sectors: residential, commercial, industrial, high consumers, government, municipalities and autonomous entities. Particularly, the project aims to benefit 5.1 million persons, the population of the north and central departments of the country. The quality improvement of the electric service allows to provide a basic and reliable service that will foster productive activities of the benefited communities, dedicated mainly to industry, commerce and tourism and to have a greater sense of national ownership by reducing migration. Greater service reliability will open opportunities to modernize production practices, adding greater added value to their products, through refrigeration and post-harvest processing in agriculture and fisheries and irrigation in agriculture. Particularly, the intervention zones concentrate migrant municipalities identified in the Alliance Plan for the Northern Triangle Prosperity, where high interruption rates are reported.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing Instruments

- 2.1 **Financing structure.** The program is structured as an investment loan for multiple works <sup>14</sup>, since it finances projects with similar characteristics but independent of each other and that meet predefined eligibility criteria (**¶1.28Error! Reference source not found.**). It will be financed with resources from the Regular Ordinary Capital, Ordinary Concession Capital of the IDB and reimbursable resources from

<sup>14</sup> The multiple works program modality finances a portfolio of projects with similar characteristics, but which are independent of each other, and that meet the eligibility criteria defined for the program, including quality and reliability criteria, standardized by ENEE.

the Climate Investment Funds (CIF), specifically from the SREP program. The resources will be disbursed in 6 years, according to the disbursement schedule of Table 2, detailed in the Disbursement Plan.

Source	1	2	3	4	5	Total
<b>IDB (US\$)</b>	25.000.000	53.000.000	58.000.000	5.000.000	9.000.000	150.000.000
<b>SREP (US\$)</b>	5.000.000	-	-	-	-	5.000.000
<b>TOTAL (US\$)</b>	<b>30.000.000</b>	<b>53.000.000</b>	<b>58.000.000</b>	<b>5.000.000</b>	<b>9.000.000</b>	150.000.000
<b>IDB (%)</b>	16.7	35.3	38.7	3.3	6	100
<b>SREP (%)</b>	100					100

## B. Viability and Sustainability

- 2.2 Socio-environmental, economic, financial and technical aspects were analyzed for the evaluation of the program, in a representative sample of approximately 31% of the total amount of the program (¶1.27), meeting the requirements of the multiple works loans <sup>15</sup>. It is expected that the additional works to be financed meet the established eligibility criteria (¶1.28) and they are similar to those included in the sample. The main results of the sample analysis are shown below:
- 2.2 **Economic and financial evaluation.** An Economic Analysis of the Project was made of the proposed investments with regard to the impact of the program's objectives. To select the works, ENEE performed a technical solution alternatives analysis for each of the projects identified as critical to ensure the quality, safety and reliability of the electricity supply to the areas of influence, in the short term. The cost and profitability of each one was evaluated, selecting the most economic alternative among those that achieve the technical solution that is sought. To these selected minimum cost solutions, an economic evaluation was performed to verify their viability.
- 2.3 The investments costs were taken according to the estimates resulting from the feasibility analysis performed by ENEE and evaluated by independent consultants, reflected in the technical profiles of each project. The annual operation and maintenance costs of the new transmission systems to be installed are estimated at 3% of the investment.
- 2.4 The direct benefits of the strengthened SIN associated with the investments in the project sample were evaluated, identifying as main benefits: (i) the reduction of electricity losses; and (ii) the improvement of service reliability.
- 2.5 A projection of costs and incremental revenues was made as a result of the project, at market prices for the financial evaluation and at efficiency prices for the economic evaluation. The net flows of costs and benefits were used to calculate the financial and economic rates of return (Internal Rate of Return -IRR and EIRR) and the financial and economic Net Present Value (NPV), using a 12% reference

<sup>15</sup> To approve the financing, a sample of identified and evaluated projects that represent at least, 30% of the value of the financing shall be made.

discount rate and a 20 years horizon. The summary of the results is shown in Table 3.

**Table 3. Summary of Evaluation Results – Base Case**

	<b>Project TL SPSS-SBV</b>	<b>Project TL Laínez-Miraflores</b>
Financial NPV (US\$ million)	284,4	88,3
Financial IRR (%)	59,0	82,7
Economic NPV (US\$ million)	276,8	87,8
Economic IRR (%)	58,3	108,1

- 2.6 The results of the analysis validate the high financial and economic convenience of making investments that meet the technical, economic and financial characteristics represented in the sample, to strengthen and expand the Honduran transmission system. A sensitivity analysis of the results to adverse variations with a reasonable probability of occurrence was made of the most critical variables that determine the profitability of the investment: investment costs, loss level, failure costs and short-term marginal cost. The viability results are supported on these simulations, validating the robustness of the proposed investments.
- 2.7 There are non-quantified additional benefits in the analysis, such as the greater possibility of participation of Honduras in the MER of the SIEPAC and the reduction of CO<sub>2</sub> emissions resulting from greater participation of NCRE in the energy matrix. Since Honduras is a net importer of electricity, better access to energy purchases at more competitive prices and investment in new generation that could be avoided, represent important potential benefits from an economic and financial perspective.
- 2.8 **Technical viability.** The following was considered for the design of the works: (i) demand and generation conditions; (ii) demand and generation scenarios considering seasonality and minimum, medium and maximum values in the SIN; (iii) bar voltage levels; and (iv) maximum load levels in transmission and distribution lines and transformers. For the selection of works, alternatives were analyzed on the basis of power flow studies, load levels and analysis of incremental losses, as described in the technical profiles of the projects<sup>16</sup>.
- 2.9 **Institutional viability of the execution of the project.** The evaluation of the institutional capacity concludes that ENEE is an institution with technical strength and administrative/managerial weakness, therefore, to execute a new operation, it will be necessary to continue with the existing PCU scheme, considering the risks and the needs to strengthen the team, based on the institutional characteristics and the profound reform process in which ENEE currently is. The PCU model takes advantage of ENEE's technical strength and the required fiduciary, managerial and coordination capacities. It should be noted that the establishment of this Project Management Unit, which has valued the execution of the programs with an

<sup>16</sup> Technical profile of the project sample. LT San Pedro Sula Sur-San Buenaventura. Technical profile of the project sample. Expansion of the substations Laínez y Miraflores and Construction of 5 km of transmission line.

improvement of institutional performance due to the participation of the PCU has been recurrent in all counterparts, both external and internal, as well as managers, middle management and operations.

- 2.10 **Sustainability.** The results of the technical, economic and financial viability analysis show that the works are sustainable from these aspects. The contemplated institutional strengthening works and activities will contribute to ENEE's technical, operational and financial sustainability and of the sector (§2.2). The operation and maintenance of the works to be financed will be the ENEE's responsibility and its costs will be covered by the fee<sup>17</sup>. The works will allow the achievement of an economic dispatch of energy, promote the commercialization of energy in the MER and increase the participation of NCRE in the generation matrix. It is estimated that transmission investments this year will contribute to reduce the GHG emission factor by 12%<sup>18</sup>.

### C. Environmental and Social Risks

- 2.11 The program is classified as Category "B" operation pursuant to the Operational Policy OP-703, as it entails environmental and social impacts and risks typically associated with the construction and operation of high voltage TL and ES. The mitigation measures for each project of the representative sample are described in their respective Environmental and Social Management Plan (ESMP). For projects outside the sample the ESMF will be used. The design of the TL of the sample has avoided the need for resettlement of people or structures by changing the layout of each TL, after carrying out an analysis of alternatives. For the TL SPSS-SBV, an Asset Compensation Plan was prepared to mitigate the impacts resulting from the acquisition of rights of way. It has been verified that this operation does not affect the indigenous populations, despite the fact that the presence of indigenous populations has been reported in the area of influence of the project. No critical natural habitat has been identified in the area of influence of the sample and the impact to natural habitats is not significant since TL and ES will be constructed in areas previously intervened by productive activities or urbanization. Therefore, no compensation programs are required. The operation will not result in a significant use of water or other natural resources, or in generation of significant volumes of hazardous waste or GHG. As a requirement of the Loan Agreement, occupational and community health and safety risks will be handled with good industrial practices and the design and appropriate location of the facilities with respect to populated areas.
- 2.12 The operation can fully comply with IDB policies as long as the environmental and social requirements of the Loan Agreement and the actions described in the ESMPs are executed for the sample projects. In the case of projects outside the sample, it will be necessary to apply the provisions of the ESMF including, if required, resettlement plans and indigenous peoples' plans. The subprojects of the sample have Environmental and Social Assessments and ESMPs. Both these and the ESMFs have been published on the Bank's website. The process of significant

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<sup>17</sup> The current tariff scheme remunerates transmission and distribution charges.

<sup>18</sup> Estimated value in the updated Investment Plan of the SREP program. Value subject to review based on the validation results of the national emission factor, financed with resources from the Technical Cooperation ATN/OC-14905-HO.



consultations will finish in May 2018 for the work sample. The results of each of the significant consultations has been documented in a consultation report, attached to the final versions of the Environmental and Social Assessments and ESMPs of the sample projects. All this must be finalized before the Bank's Operating Policies Committee. The risk of natural disasters is classified as moderate. Natural hazard maps show that the only high risks are droughts and periods of high temperatures. Considering the presence of seasonally dry forests in the proposed layout of the SPSS-SBV TL, there is a risk of exacerbation of forest fires if good practices are not applied to prevent and control of fires in construction and maintenance activities in times of drought.

- 2.13 Beyond the ongoing consultation process, the operation fully complies with the Bank's applicable safeguard policies. The pending actions to achieve full compliance are the completion of the consultation process and the updating of environmental and social instruments before the Board of Directors.

#### **D. Fiduciary Risks**

- 2.14 Based on the lessons learned during the execution of previous loans with the ENEE, its execution has been considered through its PCU with external supervision of work execution for the administration and monitoring of the program. The PCU has experience in executing projects with the Bank, both in procurement and contracting, and in financial execution. Loans 3103 / BL-HO and 3435 / BL-HO, which have a good level of execution, are currently being executed. It has a well-trained technical team in the Office of Social Electrification of the Electricity Development Social Fund for the development of access to electricity projects, based on grid extension and rural electrification with individual RE systems.
- 2.15 ENEE will execute the project using its organizational structure and fiduciary management systems. The analysis of the institutional and fiduciary risks of the ENEE showed that the ENEE's fiduciary system presents a medium risk level, due to the increase of the work volume of ENEE's technical and fiduciary areas. The risk is considered medium due to ENEE's operational capacity and its knowledge of the Bank's policies, with support from the PCU within ENEE, following the recommendations of the Institutional Capacity Assessment System performed in October 2017 and expects its mitigation through the hiring of technicians and fiduciary specialists, whose profile and reference terms will be agreed with the Bank.

#### **E. Other risks of the project**

- 2.16 During the preparation of the operation, risks were identified: risks of public management and governance. As high risks, the possibility of having insufficient budgetary ceilings and budgetary modifications that result in delays in the execution of the program and fines to ENEE. As average risks: (i) change of government authorities and internal ENEE personnel; (ii) delay in the commencement of the works due to ENEE's financial and budgetary unavailability to make advance payments for works; and (iii) delays in execution due to the lack of coordination with regional entities. The mitigation measures are: (i) informational meetings regarding management; (ii) periodic follow-up meetings of the procurement processes prior to the first disbursement of the loan operation with

the IDB; and (iii) ENEE will hold periodic coordination meetings with regional entities.

- 2.17 Development risks. Delays in the award of contracts resulting from not obtaining easements in time and form and purchase of land. For these risks, the respective mitigation measure proposed is to hold continuous meetings between the PCU and ENEE's financial management with the Ministry of Finance and the quick start of the land purchase process and the acquisition of easements using the fast track law. As average risks: (i) delay in execution and cost overruns for bad construction practices during the assembly process, or contractors with limited financial capacity; (ii) ENEE's resistance to the adopt a Gender Equality Policy and Equality and Social Policy; and (iii) increase in workload of ENEE's technical and fiduciary areas To mitigate these risks, the following is proposed: (i) wide dissemination of the International Public Bidding, reasonable time to prepare the bids; (ii) hiring a manager to work directly with management and the PCU to implement the policy and, the development of strategic awareness workshops; and (iii) hiring of technical and fiduciary support staff.

### III. SUMMARY OF THE IMPLEMENTATION ARRANGEMENTS

#### A. Implementing Arrangements

- 3.1 ENEE, with support from the existing PCU for IDB loans in execution shall be responsible for the execution, administration, monitoring and evaluation of the project. ENEE will hire an external supervising firm to supervise works.
- 3.2 As executor, ENEE shall be in charge of implementing and supervising the program, defining and approving the Annual Operating Plans (AOP), providing information that allows the Bank to monitor and evaluate the results of the program. (¶3.6), coordinate and manage disbursements and keep accounting and financial records, including the required annual financial statements of the program. ENEE has a technical team trained in energy transmission issues and with feasibility and social-environmental studies for 70% of the works to be financed. The PCU shall be responsible for the fiduciary management of the two sources of financing.
- 3.3 **Procurement management.** For the hiring of works and the procurement of goods and consulting services financed with Bank resources, the Policies for the Acquisition of Works and Goods Financed by the Bank (GN 2349-9) and the Policies for the Selection and Hiring of Consultants Funded by the Bank (GN-2350-9) shall be applicable. The supervision method will be a combination of ex post and ex ante according to the provisions of the Procurement Plan (PP). Any procurement must be included in the PP approved by the Bank and shall follow the methods and ranges therein established. A PP will be agreed for the first 24 months of execution, which will be followed up and executed and updated through the methods agreed with the Bank. The PCU staff may be hired directly, for continuity of their services rendered in operations previously financed by the Bank and executed by ENEE, after a positive evaluation of their performance, in accordance with the Bank's procurement policy GN-2350- 9. The direct hiring of several special energy management licenses is expected, in amounts that fluctuate between US\$ 5,000 and US\$ 40,000. These licenses shall be acquired from the developers of each software, the holders of their property rights, thus

complying with the provisions of the Bank's Procurement Policies. (GN-2349-9 3.6.c)

- 3.4 **Financial management.** ENEE, through the PCU, shall be responsible for the financial management and shall file audited financial statements of the IDB financing within 120 days of the close of each fiscal year. The last of these reports shall be filed within 120 days of the date of the last disbursement. ENEE will hire external audit services based on reference terms previously approved by the Bank. Disbursements shall be made pursuant to the financial plan, in accordance with the provisions of the Financial Management Guide for Projects Funded by the IDB (OP273-6) and its updates.
- 3.5 **Program Operating Manual (POM).** The execution of the program shall be governed by the provisions contained in its POM previously agreed with the Bank to guarantee the adequate execution of the program. The POM shall incorporate all the procedures to be used during the execution of the program. During the execution, the POM may be modified with the written non-objection of the Bank. The POM shall include: (i) a detailed execution plan and institutional and operational roles and responsibilities of the entities involved; (ii) technical and socio-economic criteria for the works to be financed; (iii) standards and procedures for the selection and hiring of works, goods and services; (iv) investment sustainability strategy: payment schemes for electricity service, maintenance responsibilities, selection criteria for facilities managers; (v) rules and procedures for administrative and financial management; (vi) follow-up and monitoring procedures; and (vii) measures, actions and procedures established in the ESMP, which shall be an annex of the POM. **The approval of the POM pursuant to the terms previously agreed with the bank shall be a special contractual condition prior to the first disbursement of the financing.** The POM is necessary to guarantee the adequate execution of the program.

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

- 3.6 **Monitoring and evaluation.** The program includes a Monitoring and Evaluation Plan (M&E Plan). The monitoring scheme shall include: (i) a Procurement Plan; (ii) a Pluri-annual Execution Program, and Annual Operating Plan; (iii) annual compliance verification of the goals established in Annex II; and (iv) semiannual reports that will contain: (a) activities performed during that period, progress in their execution, problems that have arisen and the way to solve them; (b) evaluation of: Results Matrix, Procurement Plan, and Annual Operating Plan; and (c) analysis of the Project Monitoring Report of the Bank, which shall evaluate the achievement of the product indicator goals and results of the Results Matrix. The performance of such period will be evaluated and shall include the planning for the following semester.
- 3.7 The FUEP includes the evaluation mechanisms of the project, whose purpose is to verify the fulfillment of the goals agreed in the Results Matrix. ENEE shall select and hire consulting services to perform: (i) an intermediate evaluation, once 50% of the project resources have been disbursed and justified, or 24 months after execution, whichever occurs first. This evaluation will concentrate on analyzing the progress made; coordination and execution issues; the degree of compliance with contractual obligations; recommendations to achieve the proposed goals and the sustainability of investments; (ii) a final evaluation, at least 90 days before the last disbursement date, whose final report must be submitted at least 30 days after the

final justification for the disbursement of the financing, which will determine: the degree of compliance with the goals established in the Results Matrix; the performance of the executor; factors that affected the implementation; and recommendations for future operations; and (iii) an ex post cost-benefit analysis following the methodology applied to the ex ante economic evaluation.

## RESULTS MATRIX

Objectives	The general objective is to reinforce the SIN through the financing of priority works of the ENEE investment plan. The specific objectives are: (i) to strengthen the interconnection capacity with the MER to enhance the use of EISCAC; (ii) improve ENEE's financial sustainability and institutional capacity; (iii) improve the quality of the transmission by increasing the reliability of the electric service; and (iv) facilitate transportation of electricity generated with RE projects to the SIN.				
Impact	Indicators	Unit	Base 2016	Final goal 2023	Verification Means / Calculation methodology
Reduction of the CO <sub>2</sub> emission factor in the electric sector	ton CO <sub>2</sub> /MWh	Ton CO <sub>2</sub> /MWh	0.63	0.55	ENEE'S environmental studies unit reports
Results	Indicators	Unit	Base 2016	Final goal 2023	Verification Means / Calculation methodology
Improvement in the quality and reliability of the transmission network in the central and northern areas of the country.	Energy not supplied due to failures in the transmission system in the northern area in one year.	MWh	1,028	731	Failure report from the dispatch management / $\sum$ momentary load (MW) x amount of time that the element was disconnected from the SE in the northern area.
	Energy not supplied due to failures in the transmission system in the central area in one year.	MWh	1,713	1,170	Failure report from the dispatch management / $\sum$ momentary load (MW) x amount of time that the element was disconnected from the SE in the central area.
Increase of the installed capacity of renewable electric power.	RE installed capacity.	MW	1,596	2,000	ENEE's monthly operation report
Increased renewable energy generation / Total energy in the national grid	Participation of renewable energy production in the energy matrix	%	49%	53%	Annual Energy management report
Increased supply of renewable energy due to avoided curtailment (GWh/year)	Renewable energy supplied in the transmission system in one year	GWh/year	0	70	Annual Energy management report
Increase of energy available for commercialization in the MER	Import capacity of the MER from Guatemala to Honduras.	MW	60	100	Regional operating entity report maximum transfer capacity

Products/Indicators	Unit	Base 2016	2018	2019	2020	2021	2022	2023	Final goal	Verification means
<b>Component 1. Expansion of transmission infrastructure.</b>										
Expanded ES	No.	0				1	1		2	
Constructed ES	No.	0					6		6	
Constructed TL at 230kV.	km	0				46			46	
Constructed TL at 138kV.	km	0					6.1		6.1	
<b>Component 2. ENEE's institutional strengthening.</b>										
Strategic plan for the financial and operational sustainability of ENEE's Transmission Company, formulated and implemented	Plan	0						1	1	Bi-annual Project Monitoring Report (BPMR), prepared by ENEE.
Communication strategy and corporate image, formulated and implemented	Strategy	0						1	1	
Report of accounting and financial information for the transparency and rendering of accounts, issued	Report	0						1	1	
Strengthening plan of the Environmental Directorate, designed and implemented.	Plan	0						1	1	
Pilot plan for gender inclusion at a corporate level and transmission management, designed and implemented.	Plan	0						1	1	
Training in management and administration, operation and logistics, effective communication and energy matter addressed to technical, managerial and logistics teams at ENEE Corporation, taught	Training	0				3	1		4	

<b>Products/Indicators</b>	<b>Unit</b>	<b>Base 2016</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>Final goal</b>	<b>Verification means</b>
Monitoring plans, contract management and procurement, implemented.	Plan	0						3	3	



# Safeguard Policy Filter Report

## Operation Information

Operation		
<b>HO-L1186</b> National power transmission program - Phase 1		
Environmental and Social Impact Category	High Risk Rating	
B	{Not Set}	
Country	Executing Agency	
HONDURAS	HO-ENEE - EMPRESA NACIONAL DE ENERGIA ELECTRICA)	
Organizational Unit	IDB Sector/Subsector	
Climate Change	ENERGY SECTOR REHABILITATION AND EFFICIENCY	
Team Leader	ESG Primary Team Member	
CARLOS ALBERTO JACOME MONTENEGRO	ROBERT PETER LANGSTROTH	
Type of Operation	Original IDB Amount	% Disbursed
Loan Operation	\$150,000,000	0.000 %
Assessment Date	Author	
20 Sep 2017	RLANGSTROTH ESG Primary Team Member	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	29 Aug 2017	
QRR (Estimated)	29 Sep 2017	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

## Safeguard Policy Items Identified

### [B.1 Bank Policies \(Access to Information Policy– OP-102\)](#)

The Bank will make the relevant project documents available to the public.

### [B.1 Bank Policies \(Disaster Risk Management Policy– OP-704\)](#)





# Safeguard Policy Filter Report

The operation is in a geographical area exposed to [natural hazards \(Type 1 Disaster Risk Scenario\)](#). Climate change may increase the frequency and/or intensity of some hazards.

## B.1 Bank Policies (Disaster Risk Management Policy– OP-704)

The sector of the operation is vulnerable to natural hazards. Climate change may increase the frequency and/or intensity of some hazards.

## B.1 Bank Policies (Disaster Risk Management Policy– OP-704)

The operation has the potential to exacerbate risk to human life, property, the environment or cause economic disruption ([Type 2 Disaster Risk Scenario](#)).

## B.1 Bank Policies (Gender Equality Policy– OP-761)

The operation has the potential to affect negatively women or gender equality ([Negative gender impacts may include the following](#))

## B.1 Bank Policies (Resettlement Policy– OP-710)

The operation has the potential to cause physical displacement of people living in the project area of influence (see also Resettlement Policy)

## B.2 Country Laws and Regulations

The operation is expected to be in compliance with laws and regulations of the country regarding specific women's rights, the environment, gender and indigenous peoples (including national obligations established under ratified multilateral environmental agreements).

## B.3 Screening and Classification

The operation (including [associated facilities](#)) is screened and classified according to its potential environmental impacts.

## B.4 Other Risk Factors

There are [associated facilities](#) (see policy definition) related to the operation.

## B.4 Other Risk Factors

The borrower/executing agency exhibits weak institutional capacity for managing environmental and social issues.

## B.5 Environmental Assessment Requirements

An environmental assessment is required.

## B.6 Consultations

Consultations with affected parties will be performed equitably and inclusively with the views of all stakeholders taken into account, including in particular: (a) equal participation by women and men, (b) socio-culturally appropriate participation of indigenous peoples and (c) mechanisms for equitable participation by vulnerable groups.

## B.7 Supervision and Compliance

The Bank is expected to monitor the executing agency/borrower's compliance with all safeguard requirements stipulated in the loan agreement and project operating or credit regulations.



# Safeguard Policy Filter Report

## B.9 Natural Habitats and Cultural Sites

The operation will result in the degradation or conversion of Natural Habitat or Critical Natural Habitat in the project area of influence.

## B.10. Hazardous Materials

The operation has the potential to impact the environment and occupational health and safety due to the production, procurement, use, and/or disposal of hazardous material, including organic and inorganic toxic substances, pesticides and persistent organic pollutants (POPs).

## B.11. Pollution Prevention and Abatement

The operation has the potential to pollute the environment (e.g. air, soil, water, greenhouse gases).

## B.15. Co-financing Operations

The operation or any of its components is being co-financed.

## B.17. Procurement

Suitable safeguard provisions for the procurement of goods and services in Bank financed operations may be incorporated into project-specific loan agreements, operating regulations and bidding documents, as appropriate, to ensure environmentally responsible procurement.

## Potential Safeguard Policy Items

### B.1 Bank Policies (Indigenous People Policy– OP-765)

The operation has the potential to negatively affect indigenous people (also see [Indigenous Peoples Policy](#)).

### B.1 Bank Policies (Indigenous People Policy– OP-765)

The operation will offer opportunities for indigenous people

## Recommended Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.

## Additional Comments

[No additional comments]



# Safeguard Policy Filter Report



# Safeguard Screening Form

## Operation Information

Operation		
<b>HO-L1186</b> National power transmission program - Phase 1		
Environmental and Social Impact Category	High Risk Rating	
B	{Not Set}	
Country	Executing Agency	
HONDURAS	HO-ENEE - EMPRESA NACIONAL DE ENERGIA ELECTRICA)	
Organizational Unit	IDB Sector/Subsector	
Climate Change	ENERGY SECTOR REHABILITATION AND EFFICIENCY	
Team Leader	ESG Primary Team Member	
CARLOS ALBERTO JACOME MONTENEGRO	ROBERT PETER LANGSTROTH	
Type of Operation	Original IDB Amount	% Disbursed
Loan Operation	\$150,000,000	0.000 %
Assessment Date	Author	
20 Sep 2017	RLANGSTROTH ESG Primary Team Member	
Operation Cycle Stage	Completion Date	
ERM (Estimated)	29 Aug 2017	
QRR (Estimated)	29 Sep 2017	
Board Approval (Estimated)	{Not Set}	
Safeguard Performance Rating		
{Not Set}		
Rationale		
{Not Set}		

## Operation Classification Summary



# Safeguard Screening Form

Overridden Rating	Overridden Justification
A	Reduce: further assessment confirms less impacts/lower risk
Comments	

## Conditions / Recommendations

Category "B" operations require an environmental analysis (see Environment Policy Guideline: Directive B.5 for Environmental Analysis requirements)

The Project Team must send to ESR the PP (or equivalent) containing the Environmental and Social Strategy (the requirements for an ESS are described in the Environment Policy Guideline: Directive B.3) as well as the Safeguard Policy Filter and Safeguard Screening Form Reports. These operations will normally require an environmental and/or social impact analysis, according to, and focusing on, the specific issues identified in the screening process, and an environmental and social management plan (ESMP). However, these operations should also establish safeguard, or monitoring requirements to address environmental and other risks (social, disaster, cultural, health and safety etc.) where necessary.

## Summary of Impacts / Risks and Potential Solutions

A [natural hazard](#) is likely to occur or be exacerbated due to climate-related changes and the likely severity of the impacts to the project is [moderate](#).

A Disaster Risk Assessment, that includes a Disaster Risk Management Plan (DRMP) may be necessary, depending on the complexity of the project and in cases where the vulnerability of a specific project component may compromise the whole operation. The DRMP should propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project itself to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations. For details see the DRM policy guidelines.

Potential to introduce [gender](#) differentiated health and safety [risks](#), or to increase the risk of violence, sexual exploitation, human trafficking or sexually transmitted diseases



## Safeguard Screening Form

**Incorporation of gender analysis into its social impact and risk assessments:** Where project has the potential to introduce gender differentiated health and safety risks, or to increase the risk of violence, sexual exploitation, human trafficking or sexually transmitted diseases, project preparation and implementation should include specific analysis and consultation regarding these issues and the social impact and risk assessment and associated mitigation framework must address them specifically. The mitigation framework will be referenced in the legal documentation (covenants, conditions of disbursement, etc.), require regular reporting, frequent and independent monitoring, and independent review of implementation.

Project construction activities are likely to lead to localized and temporary impacts (such as dust, noise, traffic etc) that will affect local communities and [workers](#) but these are [minor](#) to [moderate](#) in nature.

**Construction:** The borrower should demonstrate how the construction impacts will be mitigated. Appropriate management plans and procedures should be incorporated into the ESMP. Review of implementation as well as reporting on the plan should be part of the legal documentation (covenants, conditions of disbursement, etc).

Safety issues associated with structural elements of the project (e.g. dams, public buildings etc), or road transport activities (heavy vehicle movement, transport of [hazardous materials](#), etc.) exist which could result in [moderate](#) health and safety [risks](#) to local communities.

**Address Community Health Risks:** The borrower should be required to provide a plan for managing risks which could be part of the ESMP; (including details of grievances and any independent audits undertaken during the year). Compliance with the plan should be monitored and reported. Requirements for independent audits should be considered if there are questions over borrower commitment or potential outstanding community concerns.

Security forces will be used and industry standards (e.g. Voluntary Principles on Security and Human Rights) in terms of selection and management of security staff will be followed.

**Manage Use of Security Forces:** The borrower should be required to provide an annual review of security measures (including details of grievances and any independent audits undertaken during the year).

The negative impacts from production, procurement and disposal of [hazardous materials](#) (excluding POPs unacceptable under the Stockholm Convention or toxic pesticides) are [minor](#) and will comply with relevant national legislation, [IDB requirements on hazardous material](#) and all applicable International Standards.

**Monitor hazardous materials use:** The borrower should document risks relating to use of hazardous materials and prepare a hazardous material management plan that indicates how hazardous materials will be managed (and community risks mitigated). This plan could be part of the ESMP.

The project has or will have [minor](#) negative impacts on [Indigenous Peoples](#).

**Mitigation Framework:** Include specific mitigation measures as needed in consultation with affected IPs. Consult with Indigenous Peoples specialist. Incorporate measures in legal documentation (covenants, conditions of disbursement, etc.). Include mitigation measures as part of overall environmental and social management plans or provisions.



## Safeguard Screening Form

The project has or will have [moderate](#) to [minor](#) negative effect on cultural site(s) and it is justified to be unavoidable. Affected stakeholders have indicated approval through a documented process of [good faith negotiation](#).

**Protection of Cultural Sites:** Where impacts to cultural site are anticipated, the borrower should generally seek the advice of professional experts and a mitigation plan should be developed which includes the following basic elements: (a) demonstration that mitigation will comply with relevant legislation; (b) evidence that the borrower has the capacity/commitment to protect cultural site; (c) implementation of chance finds procedures; (d) establishment of consultation processes with affected communities and appropriate experts; and (e) appropriate controls on the removal of cultural site. Additional special requirements will come into play if cultural site is likely to be affected by the investment. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement, project completion tests, etc.). The borrower should develop an action plan that describes how cultural sites will be protected.

The project includes dangerous and hazardous [working conditions](#) where there could be [significant](#) negative impacts to [workers](#) or communities.

**Ensure that the borrower Addresses Occupational Health and Safety:** The borrower should provide details of how occupational health and safety issues will be addressed (including those found in the supply chain as appropriate) in a timely and efficient manner as a condition of disbursement and annual audits by third party experts should be considered. This should be addressed using an occupational health and safety management plan.

The project is located in an area prone to [high winds](#), [blizzards](#), [wildfires](#), [heat waves](#) or [cold waves](#), and the likely severity of impacts to the project is [significant or extreme](#).

A Disaster Risk Assessment that includes a Disaster Risk Management Plan (DRMP) must be prepared. The DRMP should focus on the specific risks posed by any of these natural hazards to the project, and propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project to exacerbate risks to people and the environment during construction and operation. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations. For details see the DRM policy guidelines.

The project is located in an area prone to significant [droughts](#) and the likely severity of the impacts to the project is [significant or extreme](#).



## Safeguard Screening Form

A Disaster Risk Assessment that includes a Disaster Risk Management Plan (DRMP) must be prepared. The DRMP should focus on the specific significant or extreme risks a major drought poses to the project, and propose measures to manage or mitigate these risks to an acceptable level. The measures should consider both the risks to the project, and the potential for the project to exacerbate risks to people and the environment during construction and operation. The DRMP must also take into consideration changes in the frequency and intensity of droughts that could occur with climate change. The measures should include risk reduction (siting and engineering options), disaster risk preparedness and response (contingency planning, etc.), as well as financial protection (risk transfer, retention) for the project. They should also take into account the country's disaster alert and prevention system, general design standards and other related regulations. For details see the DRM policy guidelines.

The project will mobilize personnel foreign to project zones and the borrower does not have a code of conduct or internal practices/rules prohibits the interaction with the local communities.

**Ensure the borrower addresses Health and Community Safety:** The borrower will deliver a code of conduct for his employees, contractors and subcontractors including clauses specifying those employees, contractors and subcontractors not to interact and relate with the local communities

The project will or may require [involuntary resettlement](#) and/or economic displacement of a [minor](#) to [moderate](#) nature (i.e. it is a [direct](#) impact of the project) and does not affect [indigenous peoples](#) or other vulnerable land based groups.

**Develop Resettlement Plan (RP):** The borrower should be required to develop a simple RP that could be part of the ESMP and demonstrates the following attributes: (a) successful engagement with affected parties via a process of Community Participation; (b) mechanisms for delivery of compensation in a timely and efficient fashion; (c) budgeting and internal capacity (within borrower's organization) to monitor and manage resettlement activities as necessary over the course of the project; and (d) if needed, a grievance mechanism for resettled people. Depending on the financial product, the RP should be referenced in legal documentation (covenants, conditions of disbursement, project completion tests etc.), require regular (bi-annual or annual) reporting and independent review of implementation.

Transport of [hazardous materials](#) (e.g. fuel) with [minor](#) to [moderate](#) potential to cause impacts on community health and safety.

**Hazardous Materials Management:** The borrower should be required develop a hazardous materials management plan; details of grievances and any independent health and safety audits undertaken during the year should also be provided. Compliance with the plan should be monitored and reported. Depending on the financial product, this information should be referenced in appropriate legal documentation (covenants, conditions of disbursement etc). Consider requirements for independent audits if there are concerns about commitment of borrower or potential outstanding community concerns.

### Disaster Risk Summary

Disaster Risk Level

**High**





# Safeguard Screening Form

Disaster / Recommendations

The reports of the Safeguard Screening Form (i.e. of the Safeguards Policy and the Safeguard Classification Filters) constitute the Disaster Risk Profile to be summarized in and annexed to the Environmental and Social Strategy (ESS). The Project Team must send the PP (or equivalent) containing the ESS to the ESR.

The Borrower should consider including disaster risk expertise in the organization of project oversight, e.g. in the project's panel of experts. For the Bank's requirements, the Borrower addresses the screened disaster risks in a Disaster Risk Management Summary reviewing disaster and climate change risks associated with the project on the basis of a Disaster Risk Assessment (DRA). Based on the specified hazards and the exposure of the project area, it demonstrates the potential impact of the rapid onset events and/or slow onset changes for the project and its area including exacerbated risks for people and environment, given local vulnerability levels and coping capacities. Furthermore the DRM Summary presents proposed measures to manage or mitigate these risks in a Disaster Risk Management Plan (DRMP). The DRA /DRMP to which the DRM Summary refers may be a stand-alone DRA document (see Directive A-2 of the DRM Policy OP-704) or included in other project documents, such as feasibility studies, engineering studies, environmental impact assessments, or specific natural disaster and climate change risk assessments, prepared for the project. These documents should be accessible for the Project Team.

The Project Team examines and adopts the DRM summary. The team remits the project risk reduction proposals from the DRMP to the engineering review by the sector expert or the independent engineer during project analysis or due diligence, and the financial protection proposals to the insurance review (if this is performed). The potential exacerbation of risks for the environment and population and the proposed risk preparedness or mitigation measures are included in the Environmental and Social Management Report (ESMR), and are reviewed by the ESG expert or environmental consultant. The results of these analyses are reflected in the general risk analysis for the project. Regarding the project implementation, monitoring and evaluation phases, the project team identifies and supervises the DRM approaches being applied by the project executing agency.

Climate change adaptation specialists in INE/CCS may be consulted for information regarding the influence of climate change on existing and new natural hazard risks. If the project requires modification or adjustments to increase its resilience to climate change, consider (i) the possibility of classification as an adaptation project and (ii) additional financing options for climate change, and consult the INE/CCS adaptation group for guidance.

## Disaster Summary

### Details

The project has been classified initially as high disaster risk because the likely severity of impacts from at least one of the natural hazards is significant or extreme. During the disaster risk assessment the project may be reclassified. Please contact ESG or a Disaster Risk Management Specialist for guidance.



## Safeguard Screening Form

### Actions

Operation has triggered 1 or more Policy Directives; please refer to appropriate Directive(s). Complete Project Classification Tool. Submit Safeguard Policy Filter Report, PP (or equivalent) and Safeguard Screening Form to ESR.