

## **HONDURAS**

### **ENERGY SECTOR SUPPORT PROGRAM II FIRST LOAN**

**(HO-L1019)**

#### **LOAN PROPOSAL**

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| <b>Required</b>  |   |
| 1.               | Annual work plan (AWP):<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526338">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526338</a>  |
| 2.               | Monitoring and evaluation arrangements<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505358">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505358</a>   |
| 3.               | Environmental and Social Management Report (ESMR)<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505368">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505368</a>  |
| 4.               | Procurement plan<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505347">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505347</a>   |
| 5.               | Environmental Classification and Safeguards<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505350">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505350</a>  |
| <b>Optional</b>  |   |
| 1.               | Report on the executing agency's institutional capacity:<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505366">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1505366</a>   |
| 2.               | Economic evaluation:<br><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526333">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526333</a>   |
| 3.               | Analysis of the sector's financial sustainability: <ul style="list-style-type: none"> <li>Historical financial analysis, 2003-2007<br/><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526335">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526335</a></li> <li>Financial projections, 2008-2015<br/><a href="http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526334">http://idbdocs.iadb.org/WSDocs/getDocument.aspx?DOCNUM=1526334</a></li> </ul> |

## ABBREVIATIONS

|        |   |
|--------|---|
| AWP    | Annual work plan  |
| ENEE   | Empresa Nacional de Energía Eléctrica [National Electrical Power Company]                                   |
| ESMP   | Environmental and Social Management Plan  |
| FSO    | Fund for Special Operations   |
| IDB    | Inter-American Development Bank   |
| IRR    | Internal rate of return   |
| kV     | Kilovolts   |
| MVA    | Megavolt Ampere   |
| NPV    | Net present value   |
| OC     | Ordinary Capital  |
| PCU    | Program coordination unit   |
| SIEPAC | Sistema Interconexión para los Países de América Central [Central American Electric Interconnection System] |

## PROJECT SUMMARY

### HONDURAS ENERGY SECTOR SUPPORT PROGRAM II FIRST LOAN (HO-L1019)

| Financial Terms and Conditions  |                      |              |                             |                |               |
|---|----------------------|--------------|-----------------------------|----------------|---------------|
| <b>Borrower:</b> Republic of Honduras<br><b>Executing agency:</b> Empresa Nacional de Energía Eléctrica (ENEE)  |                      |              | <b>Financing</b>            | <b>OC</b>      | <b>FSO</b>    |
| <b>Source</b>   | <b>Amount (US\$)</b> | <b>%</b>     | Amortization period:        | 30 years       | 40 years      |
| <b>IDB 1 – HO-L1019</b>   | <b>28,550,000</b>    | <b>53.7</b>  | Grace period:               | 5.5 years      | 40 years      |
| Ordinary Capital (OC)   | 19,985,000           |              | Disbursement period:        | 5 years        | 5 years       |
| Fund for Special Operations (FSO)   | 8,565,000            |              | Interest rate:              | Adjustable     | 0.25%         |
| <b>IDB 2 – HO-L1039</b>   | <b>20,000,000</b>    | <b>37.7</b>  | Inspection and supervision: | *              | N/A           |
| Ordinary Capital  | 14,000,000           |              | Credit fee:                 | *              | N/A           |
| Fund for Special Operations   | 6,000,000            |              | Currency:                   | U.S. dollars   | U.S. dollars  |
| <b>Local</b>  | <b>4,569,000</b>     | <b>8.6</b>   |                             |                |               |
| <b>Total</b>  | <b>53,119,000</b>    | <b>100.0</b> |                             |                |               |
| Project at a glance   |                      |              |                             |                |               |
| <p><b>Program objectives and description:</b><br/>The goal of the proposed program is to ensure that energy is supplied reliably and efficiently to meet growing domestic demand and the energy demands of economic growth in the medium term. The specific objectives are to increase the capacity of the electric power grid to transport energy in local and regional markets to ensure a secure supply that can satisfy demand in the medium term. At the same time, the program, with backing from the World Bank, will support the ENEE restructuring, with a view to improving its management capacity.</p>  |                      |              |                             |                |               |
| <p><b>Special conditions precedent to the first disbursement of the first loan:</b></p> <ul style="list-style-type: none"> <li>The signing of the subsidiary agreement between Empresa Nacional de Energía Eléctrica [National Electrical Power Company] (ENEE) and the Ministry of Finance (paragraph 3.1).</li> <li>The incorporation of the program coordination unit (PCU) into the ENEE's management, through the appointment of a program coordinator and of officials of the technical branch and the administrative/financial branch assigned to the PCU, and the selection of the financial specialist and procurement specialist who will support the PCU (paragraph 3.2).</li> <li>The approval of the Operations Manual for program execution (paragraph 3.2).</li> </ul> |                      |              |                             |                |               |
| <p><b>Special contractual conditions of the first loan:</b></p> <ul style="list-style-type: none"> <li>The program activities must be carried out according to the ESMR (paragraph 2.9).</li> <li>The ENEE's financial reorganization must be carried out according to the action plan, as set out in paragraph 2.15.</li> </ul>  |                      |              |                             |                |               |
| <p><b>Conditions for processing the second loan (HO-L1039):</b></p> <ul style="list-style-type: none"> <li>The second loan will be presented to the Bank's Board of Executive Directors by simplified procedure once resources from the FSO for 2009 have been allocated to Honduras.</li> </ul>  |                      |              |                             |                |               |
| <b>Exceptions to Bank policies:</b> None.   |                      |              |                             |                |               |
| <b>Project qualifies as:</b>  | SEQ [ ]              | PTI [ ]      | Sector [ ]                  | Geographic [ ] | Headcount [ ] |
| <b>Procurement:</b> See the procurement plan  |                      |              |                             |                |               |
| <b>Verified by CESI on:</b> 4 July 2008   |                      |              |                             |                |               |

\* The credit fee and inspection and supervision fee will be established periodically by the Board of Executive Directors as part of its review of the Bank's lending charges, in accordance with the applicable provisions of the Bank's policy on lending rate methodology for Ordinary Capital loans. In no case will the credit fee exceed 0.75% or the inspection and supervision fee exceed, in a given six-month period, the amount that would result from applying 1% to the loan amount divided by the number of six-month periods included in the original disbursement period.

## I. DESCRIPTION AND MONITORING OF OUTCOMES

### A. Background and outcomes

- 1.1 Honduras' electricity sector faces serious difficulties that jeopardize the goal of meeting demand in the short term and ensuring the sustainability of the system in the medium and long term. The sector's main problems include high technical and nontechnical losses of electricity, rates that do not reflect the cost of supplying electricity, an inadequate subsidy structure, high generation costs, and issues related to managing the national electricity company (ENEE). In the last two years, ENEE's management has changed several times and in 2007 a management board headed by the Ministry of Defense and the Ministry of Finance was put in charge. In January 2008, a new manager was appointed, and at this time the management board continues to perform the mandate entrusted to it.
- 1.2 **Country Strategy.** To deal with the crisis in the electricity sector and ensure a reliable, efficient, and sustainable energy supply sufficient to meet the rising demand, the Honduran government, through the management board, prepared an action plan. The plan calls for the restructuring of ENEE and its finances, a rate review, targeted subsidies, adoption of an energy loss reduction program, and private sector participation in power generation projects. It would help ENEE to identify sources of funding to finance the transmission and distribution projects for which it is responsible.
- 1.3 The Energy Sector Support Program II (HO-L1019 and HO-L1039) is part of a larger program to support the electricity sector and promote the recovery of ENEE that would be carried out in conjunction with other donor agencies, including the World Bank, the Central American Bank for Economic Integration (CABEI), and the United States Agency for International Development. With the proposed operation, the IDB will finance priority transmission investment and support a restructuring of the ENEE. The operation will give continuity to the support already provided to the sector with programs in progress to strengthen ENEE (1584/SF-HO) and promote Central American electricity integration (1095/SF-HO).
- 1.4 ENEE was created by Executive Order 48 of 1957, as a vertically integrated, state-owned enterprise, responsible for providing electricity service and developing, operating, and maintaining the generation, transmission, and distribution infrastructure that it owns. To accomplish this aim, it has three regional distribution branches and a technical branch that manages power generation and transmission, engineers the company's investment projects, and runs the system, including the National Dispatch Center. In 1994, the Electricity Subsector Framework Act (LMSE) was passed. The purpose of the law was to introduce a reform to encourage private-sector participation in power generation and distribution. The law introduced changes to sector management and created an energy cabinet to shape and set electricity sector policy. In addition, the National Energy Commission was set up, as the regulatory agency for the subsector; the general operating rules for the national interconnected system were set forth; and a rate schedule was established. The LMSE reform was partially implemented, changing the Honduran

model into one with a sole buyer (ENEE) and a low-profile regulatory agency with limited autonomy.

- 1.5 The ENEE has prepared a transmission and distribution network investment plan that includes three expansion programs for 2008-2015 with nearly 53 projects and US\$465 million in investments. Of this program, a series of priority investments in transmission and distribution and the strengthening of ENEE was initially identified and scheduled to be carried out in 2009-2012. The projects were financed with US\$60 million from the Honduran government, US\$48.55 million from the IDB, US\$33 million from the World Bank, and US\$15 million from CABEL.
- 1.6 The IDB program will finance priority investments that are urgently needed to improve the reliability of the system and transmission as part of the national efforts to which Honduras is committed in the construction of the Central American Electric Interconnection System (SIEPAC). Nonreimbursable technical-cooperation funding has been used to support the ENEE in the final selection of projects to be financed by the IDB and in drafting the rationale for the projects.
- 1.7 **The Bank's strategy with the country.** The operation is consistent with the Bank's strategy with Honduras for 2007-2010 (document GN-2475), approved on 7 May 2008. In energy matters, the objective of the strategy is to reduce the country's vulnerability in electricity generation, improve transmission systems, and significantly reduce losses (both technical and financial).

**B. Objective, components, and cost**

- 1.8 The goal of the proposed program is to help ensure that energy is supplied reliably and efficiently to meet the growing domestic demand and the energy demands of economic growth in the medium term. The program's specific objective is to increase the transfer capacity of the electric power grid so it can meet rising demand in the medium term, with an acceptable degree of reliability and quality. In addition, in conjunction with the World Bank, the program will support the ENEE restructuring program with a view to improving its management capacity. To achieve these objectives, the program is divided into the following components:
- 1.9 **Component 1. Investments in the electric power grid.** The works to be financed are among the investments needed for a 230 kV, 138 kV, 69 kV, and 34.5 kV transmission and subtransmission network to ensure sufficient capacity to transport the electricity required to meet demand with an acceptable degree of reliability and quality. The works to be financed are located in areas of the transmission system where demand is growing most rapidly and supply is currently unreliable, particularly the North Atlantic zone and the central ring, which supplies the metropolitan area and is a key component of the system transporting electricity to high demand areas, such as San Pedro Sula's highly industrialized development zone.
- 1.10 Specifically, three projects will be financed:

- a. ***Construction of the Amárateca substation and expansion of the Toncontín substation to complete the 230-kV central ring.*** The Amárateca substation includes (i) two 230-kV breaker-and-a-half bays; (ii) one ring bay for three 138-kV feeders; (iii) one 34.5 kV bay using main and transfer bus scheme for four 34.5-kV distribution line taps; (iv) a 150-MVA 230/138-kV autotransformer for connection to 230-kV/138-kV bays; (v) one 50 MVA 230/34.5-kV transformer for connection to 230-kV/34.5-kV bays; (vi) one 25-MVAR inductive reactive compensation bank and associated equipment, with the reactors arranged in three 13.8-kV phases to be connected to the tertiary winding of the 150-MVA 230/138/13.8-kV power transformer; and, (vii) input gates of the substation of the respective double three-phase 230 kV and 138 kV transmission lines. In turn, the expansion of the Toncontín substation comprises (i) a 230-kV line tap; (ii) a line tap bay for a 230/13.8-kV power transformer; (iii) a bay for 138-kV line tap and a 230/138-kV power transformer; (iv) a 150-MVA 230/138-kV power transformer; and (v) a 50-MVA 230/13.8-kV power transformer.
  - b. ***Construction of the Centro substation in San Pedro Sula.*** This comprises the following three main works: (i) construction of the Centro substation itself, with 50 MVA transformation to 138/13.8-kV and taps for six distribution circuits; (ii) expansion of the Bellavista substation with protection and control equipment for a 138-kV line tap; and (iii) construction of a 2.5-km 138-kV line between the Bellavista substation and the new Centro substation, on a 477 MCM FLICKER conductor and on self-supporting concrete columns.
  - c. ***Expansion of the Zamorano substation.*** Comprises the expansion design and the supply of all materials, equipment, transportation, tests, and labor required for associated installation in order to expand the Zamorano substation with a 30 MVA transformer to 69/34.5-kV.
- 1.11 The proceeds of the first loan (HO-L1019) will be used in principle to finance the Amárateca substation and the Zamorano substation expansion, and the proceeds of the second loan (HO-L1039) will finance the expansion of the Toncontín substation and the Centro substation in San Pedro Sula, including the Bellavista substation connection.
  - 1.12 **Component 2. Investments in ENEE's corporate restructuring.** This component will complement the efforts of other donor agencies, particularly the World Bank and the CABEI, to support the process of ENEE's institutional restructuring and improve its management capacity. Specifically, a new internal organization will separate generation, transmission, distribution, and marketing functions by business unit to permit more effective monitoring and tracking of the units' commitments and to make decision-making in each function more transparent and effective. This corporate restructuring will strive to improve the company's business management capacity, now being hindered because the decentralization of commercial functions was not properly coordinated. The IDB program will help with the implementation of the corporate restructuring of system transmission and operation, reinforcing

planning and training for the investment plans as well as capacity for analysis and improvement of transmission system control and operation.

**Table 1: Energy Sector Support Program II  
Investment Program (US\$ million)**

| Investment              | First Loan<br>(HO-L1019) |            |             | Second Loan<br>(HO-L1039) |            |             | Total       |            |             |
|-------------------------|--------------------------|------------|-------------|---------------------------|------------|-------------|-------------|------------|-------------|
|                         | IDB-1                    | ENEE       | Total       | IDB-2                     | ENEE       | Total       | IDB         | ENEE       | Total       |
| 1. Engineering/admin.   | 1.7                      | 0.0        | 1.7         | 1.6                       | 0.0        | 1.6         | 3.3         | 0.0        | 3.3         |
| 2. Construction cost    | 24.2                     | 0.0        | 24.2        | 16.3                      | 0.0        | 16.3        | 40.5        | 0.0        | 40.5        |
| 2.1 Transmission        | 21.2                     | 0.0        | 21.2        | 16.3                      | 0.0        | 16.3        | 37.5        | 0.0        | 37.5        |
| 2.2 Corp. restructuring | 3.0                      | 0.0        | 3.0         | 0.0                       | 0.0        | 0.0         | 3.0         | 0.0        | 3.0         |
| 3. Unallocated          | 2.6                      | 0.0        | 2.6         | 2.1                       | 0.0        | 2.1         | 4.7         | 0.0        | 4.7         |
| 4. Financial expenses   | 0.0                      | 2.8        | 2.8         | 0.0                       | 1.8        | 1.8         | 0.0         | 4.6        | 4.6         |
| <b>TOTAL</b>            | <b>28.5</b>              | <b>2.8</b> | <b>31.3</b> | <b>20.0</b>               | <b>1.8</b> | <b>21.8</b> | <b>48.5</b> | <b>4.6</b> | <b>53.1</b> |

### C. Results matrix and principal indicators

- 1.13 The **expected outcomes** from the investments in transmission are (i) the electricity shortfall will be covered through an annual increase of at least 5% in the energy supplied to the system, because of the additional transmission and transformation capacity; and (ii) the enhanced reliability of the system will be ensured through the elimination of energy losses due to network failures in the program areas. Conditions for meeting domestic electricity demand are expected to improve overall in the medium term. As a result of the corporate restructuring program and the plan coordinated with the Honduran government and donors for ENEE's financial reorganization, the company's financial results will improve to positive net earnings by 2011. The detailed indicators are shown in the Results Framework/Indicators Matrix (Annex I).

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financial Instruments

- 2.1 The program has been prepared on the basis of US\$48.55 million in IDB financing. Based on the availability of funding and the country's programming requirements, this amount has been divided into two loan operations. The first loan (HO-L1019), of US\$28.55 million, will be charged to 2008 funds, and the second loan (HO-L1039), of US\$20 million, will be charged to 2009 funds.

### B. Environmental and social risks and mitigation measures

- 2.2 During program preparation, a distinguished international expert with broad experience in Honduras prepared an environmental and social review, with which the ESMR in the program annexes was generated. The environmental and social review identified direct, indirect, and cumulative social and environmental impacts and developed a draft Environmental and Social Management Plan (ESMP) for

each project, including a monitoring and follow-up plan and a timetable and budget for its execution. The program will finance projects for substations and short power transmission lines in areas with existing installations and easements. The environmental and social review found that none of the works to be financed require social and environmental impact studies. This is because the negative impacts from such works would be minor, since they are being carried out on ENEE's existing easements and on land where substations are now located. In addition, no adverse impact on natural systems is expected, nor will there be any involuntary resettlement. It was confirmed during program preparation that it was classified as a category "B" operation, based on the IDB's Environmental and Safeguards Compliance Policy (OP-703).

- 2.3 For the environmental and social review, the following specific activities were performed: (i) field visits; (ii) review of ENEE's environmental and social management capacity; (iii) training activities at ENEE's environmental unit; (iv) presentation of IDB social and environmental policies; and (v) discussion of the best practices and procedures to ensure and improve the social and environmental management quality of electricity infrastructure projects, identifying the processes and actions needed to factor social and environmental variables into the projects to be financed under this operation.
- 2.4 The country's social and environmental legislation calls for presentation of a qualitative environmental assessment of program projects to the Ministry of Natural Resources and Environment, the country's environmental authority, as a prerequisite for granting the corresponding environmental permits and licenses and before commencement of the works.
- 2.5 **ENEE institutional capacity in social and environmental management:** The ENEE has an Environmental Studies Unit, whose responsibilities include carrying out studies and assisting with the social and environmental licensing for ENEE projects. The unit has had prior experience with IDB operations, including the SIEPAC program. In implementing this program, the unit will have the following tasks: (i) help draft qualitative environmental assessments and assist with the environmental licensing process for each project, based on Bank and Honduran social and environmental policies; (ii) monitor the progress of works construction and supervision; and (iii) support all program-related social and environmental management initiatives.
- 2.6 **Environmental and social impacts:** During the formulation of the ESMR, the project sites were visited and information and consultation activities were conducted with the stakeholders. The projects to be financed under the program have no significant environmental or social impacts. The transmission line is located entirely within the easement and is an urban area that previously received service. The expected potential environmental and social impacts are limited to the construction phase and will be largely localized, minor, and temporary. The substation expansion will take place on land belonging to ENEE. The new Amárateca substation will be located on agricultural land free of environmentally

sensitive natural or social elements. The potential environmental and social impacts identified will be managed through known prevention and mitigation techniques, which are reflected in the program ESMP.

- 2.7 **Environmental and social management plan:** Given the nature of the projects to be financed, the ESMP's principal components will address two types of projects: (i) substations works; and (ii) transmission line works in the downtown San Pedro Sula area. As to the three substations, the ESMP will require actions for the disposal of obsolete equipment and unusable materials and inputs. Special care will be taken in the case of transformers to be replaced, worker health and safety requirements for contractors and the ENEE, signaling, and noise prevention and management during the construction activities. The ENEE has indicated these transformers do not contain PCBs and will not be thrown away but moved to other substations.
- 2.8 Because the transmission line in downtown San Pedro Sula involves improvement in an urban area, the ESMP covers (i) measures to manage risks associated with the movement of persons and automobiles; (ii) air quality; (iii) heavy machinery handling; (iv) landscaping; (v) worker health and safety; (vi) work outside of school hours in areas close to schools; (vii) information and prevention billboards; (viii) hiring of local staff; (ix) information and dissemination plans; (x) visual impact management; (xi) solid and liquid waste management and camp dismantling; (xii) oils and fuel management; and (xiii) portable latrine use.
- 2.9 **Execution and supervision:** As a special execution condition, the executing agency must ensure that program activities are carried out according to the ESMR. During program preparation, it was decided that to enhance the efficiency and effectiveness of the social and environmental management process, the procedure for implementing the environmental and social measures contained in the ESMP would be incorporated into the construction and supervision contracts of all program works. Also, the contracts would include penalty clauses for total or partial failure to implement the ESMP measures.

## **C. Fiduciary risk**

- 2.10 The fiduciary risks were analyzed on the basis of an evaluation of ENEE's institutional capacity, using the Bank's Institutional Capacity Assessment System methodology (see the program technical annexes). The analysis found that significant risks existed owing to ENEE weakness in issues related to financial management and project execution procedures, including procurement. Because of ENEE's corporate restructuring process, it was recommended that the risks associated directly with the program should be addressed, while assisting ENEE to streamline project execution procedures. The fiduciary and program execution risks as well as the planned mitigation measures are summed up below.

**Table 2**  
**Program Execution Risks and Mitigation Measures**

| Risk   | Mitigation measure  |
|--|---|
| <p>Procurement systems, financial management, and monitoring have weaknesses that may adversely affect program execution. These weaknesses include:</p> <ul style="list-style-type: none"> <li>• A lack of financial management and procurement capacity as envisaged in IDB policies;</li> <li>• Inadequate records posting;</li> <li>• Operational inefficiencies in the procurement process.</li> </ul> | <p>The PCU will have permanent staff and will be strengthened with a procurement specialist and a financial specialist knowledgeable in IDB procurement and financial management policies (paragraph 3.2). Consultants will be engaged according to previously defined profiles agreed with the IDB, and payments must be linked to their performance and delivery and acceptance of specific outputs. The consultants will receive appropriate counterpart support, to which their knowledge will be transferred.</p> <p>The Operations Manual for program execution will be previously agreed on and approved by the IDB.</p> <p>The IDB technical team will support the PCU in the areas noted and in project management, the preparation and presentation of reports, and review and oversight.</p> |
| <p>General weakness in the ENEE's institutional procedures for executing projects</p>  | <p>The ENEE will receive support in the form of technical cooperation to streamline its operational procedures for project execution.</p>   |

#### **D. Other special issues and risks**

- 2.11 **Economic and technical feasibility.** From a technological standpoint the main works to be financed are a transformer substation and a small segment of transmission line, in each case at levels between 230-kV and 13.8-kV. The equipment and materials are widely used by ENEE and in the region. Neither the construction nor operation of the substation and transmission line presents any specific challenge. For the technical analysis, the transmission system was modeled for basic stable-state electricity studies with simple contingencies that made it possible to determine that the projects can address the network's reliability problems and are essential for meeting the secure medium-term demand the system requires. Specifically, the Amárateca and Toncontín project will avoid the tripping of transformers in the Suyapa and Toncontín substations that serve the downtown area and will enhance the reliability of the system by avoiding network-wide collapses that affect mainly the San Pedro Sula area. The Zamorano and Centro projects are necessary to ensure future demand at the distribution level can be met in the San Pedro Sula area and the North Atlantic coastline zone. The results are shown in the program's technical annexes.
- 2.12 Economic studies were carried out on each project and high rates of return were projected for them, even when different sensitivities were used. The Amárateca substation and the Toncontín expansion have a net present value (NPV) of US\$55.51 million and an internal rate of return (IRR) of 24% at market prices.

These values are maintained at US\$46.75 million and 21%, respectively, for a 30% increase in investment costs. For the Zamorano substation, NPV is US\$13.73 million and IRR is 36%, and US\$13.3 million and 33% for a 30% increase in investment costs. For the Centro substation project, which includes the Bellavista transmission line, NPV is US\$38.34 million and IRR is 35%, declining to US\$36.35 million and 31% for the same sensitivity. As shown in the technical annexes, for all the projects sensitivities were tested at higher energy costs and with lower rates for end-users. The IRR was always above 12%. These results are typical for medium-term works to solve reliability problems (undelivered electricity) and provide important immediate and medium-term increases in demand. This confirms the technical and economic viability of the program investments.

- 2.13 **Sustainability of the investments:** Consultants engaged by the IDB helped to prepare a detailed historical financial analysis of the 2003-2007 period and projections for 2008-2015 (see the program technical annexes). The results confirm that in 2007 the ENEE experienced a significant financial shortfall due to the higher cost of energy purchases and a failure to adjust the rates charged for sales to match fuel costs. Also, government contributions to pay the subsidies for “bond eighty” and 0 to 300 KWh consumption were delayed, producing debt accruals with the power generators and issuance of bills of exchange, as a result of which ENEE had to turn to short-term borrowing from domestic banks.
- 2.14 As noted in paragraph 1.2, the Honduran government has adopted an action plan as a result of which the 2008 national budget included the issue of 4 billion lempiras in treasury bonds to capitalize ENEE and allow it to clear its payment arrears to the generators. In addition, rate adjustments have surpassed expectations (the average increase in the unit sale price of electricity was 36% compared with the 32% called for in the standby agreement with the International Monetary Fund). The rate changes not only have allowed subsidies to be targeted more effectively but have also introduced monthly adjustments in response to the significant changes in fuel prices.
- 2.15 As a result of the Honduran government’s action plan, and especially of the capitalization, rate adjustments, corporate restructuring, and efficiency improvements, in 2008 ENEE’s revenue should again be sufficient to cover energy purchases and a sizeable portion of operating and maintenance expenses. Even with an action plan, however, from 2008 to 2010 ENEE is projected to have negative operating income, and the government will be required to continue making contributions to cover the deficits or resort to further rate increases. Starting in 2011, ENEE will attain positive operating revenue, allowing it to service its debt payments, finance investments with its own resources, and post a financial surplus allowing the government to reduce its contributions for debt servicing. The action plan is essential for the sustainability of ENEE and the program; hence, it is recommended as a special execution condition that ENEE’s financial restructuring be carried out in accordance with the plan and its implementation verified each year and the financial indicators in Annex I should be monitored. In the event of

significant deviations in the indicators, leading to a worsening of ENEE's financial position, the borrower and the executing agency will submit a plan to the Bank that (i) clearly identifies the causes of the deviations; (ii) outlines the financial or management measures to be adopted, which may include rate adjustments, interagency transfers, or any other measure considered appropriate in the circumstances that is acceptable to the Bank to accomplish this aim; (iii) defines the responsibilities of the executing agency and the borrower; and (iv) establishes a timetable for implementing the steps for restoring ENEE to financial sustainability.

### III. MANAGEMENT AND IMPLEMENTATION PLAN

#### A. Summary of implementation measures

- 3.1 The borrower will be the Republic of Honduras and the executing agency ENEE. As a condition precedent to the first disbursement of the first loan, the Ministry of Finance and ENEE will sign an agreement indicating, *inter alia*: (i) how the proceeds of the loan will be transferred and repaid to the State; (ii) ENEE's commitment to execute the program activities according to the terms and conditions of the loan agreement; and (iii) the commitment to use the loan proceeds and local counterpart funding only for the purposes of the program.
- 3.2 **Execution model.** Because of ENEE's institutional transition and corporate restructuring, and based on the recommendations in the institutional evaluation, the program will be executed through a PCU. The PCU will consist of a program coordinator, a representative of the technical branch, and a representative of the administrative/financial branch. In addition, the PCU will be strengthened by a procurement specialist and an administrative-financial specialist. The PCU will report to ENEE management. The selection of the program coordinator and the two specialists, as well as the establishment of the PCU as described above, will be a condition precedent to the first disbursement of the first loan. Also, the program must be executed according to an Operations Manual that outlining the implementation plan, the financial management and procurement procedures, and the program activities. Approval of the Operations Manual will be a condition precedent to the first disbursement of the first loan.
- 3.3 **Processing of the second loan (HO-L1039).** The second loan to support the program, for US\$20 million, will be considered by the Bank's Board of Executive Directors once the Fund for Special Operations resources for 2009 have been allocated to Honduras. The loan proposal will be processed by the simplified procedure and, in addition to fulfilling the terms of the present document, will include a progress update.
- 3.4 **Procurement.** The procurement of goods and services, works, and consulting services will be carried out in accordance with Bank policies GN-2349-7 and GN-2350-7. The appended procurement plan details the procurement processes to be used for the program.

- 3.5 **Disbursements.** Disbursement requests will be accompanied by the supporting documentation required by the Bank, in accordance with ex ante review procedures. However, if the Bank feels there is sufficient institutional capacity in the area of financial management and control, it may decide to supervise the operation under the ex post modality. For purposes of expenditure eligibility, the country financial parameters outlined in document GN-2475 and its updates will be taken into account.

**B. Summary of measures for monitoring outcomes**

- 3.6 Annual administration missions will be conducted in order to maintain adequate technical, environmental, financial, and operational monitoring. ENEE will submit semiannual reports to the IDB indicating the progress of each component and overall program performance, on the basis of the indicators agreed pursuant to the Results Framework/Indicators Matrix. In addition, the reports will (i) describe the activities carried out; (ii) update execution and disbursement timetables; (iii) indicate the degree of compliance with the agreed performance indicators; (iv) contain a program of activities for the next six-month period; (v) include a summary of the degree of financial execution of the program and the flow of resources envisaged for the next six-month period; (vi) include a section identifying possible developments or events that might place program execution at risk; (vii) contain a section on the socioenvironmental management of the program; and, (viii) in the end-of-year report, contain the AWP, including the updated procurement plan. These results will be evaluated using a series of objective technical indicators specified in the Results Framework that will be determined before, during, and after the program and will be used to update the Project Performance Monitoring Report.
- 3.7 The executing agency will compile, store, and maintain all data, indicators, and parameters needed to assist the Bank in preparing the loan performance report and the program completion report. The program calls for monitoring physical and financial targets and assessing impacts through the program management subcomponent. In these reports, the program outcome indicators will be updated twice a year.
- 3.8 **External audits.** Throughout program execution, the borrower will submit the program's and the ENEE's consolidated annual financial statements to the Bank within 120 days after the end of the fiscal year. The program will be audited by a firm of independent auditors acceptable to the Bank. The firm will be selected and contracted in accordance with the procedures in the external audit bidding document approved by the Bank. Auditing costs will be financed from program resources.

**C. Significant activities subsequent to approval**

- 3.9 In order to streamline preliminary execution of the program, the IDB will support prior activities while the loan contract is being ratified by the Legislature with resources from technical-cooperation operation ATN/SF-10691-HO. Specifically,

support will be provided (i) to engage a consultants to assist in preparing the Operations Manual for program execution, and recommendations will be made to ENEE on an action plan to streamline project execution procedures; and (ii) the detailed design of the investment component activities for ENEE's corporate restructuring, to complement the activities being carried out by other donors. The consultants will establish the outcomes indicators of this component for incorporation into the Results Framework/Indicators Matrix.

**HONDURAS**  
**ENERGY SECTOR SUPPORT PROGRAM II (HO-L1019 AND HO-L1039)**  
**RESULTS FRAMEWORK/MATRIX OF INDICATORS**

| <b>Objective of the program</b>  | <p>The goal of the proposed program is to ensure that energy is supplied reliably and efficiently to meet the growing domestic demand and permit the country to attain economic growth over the medium term. The program's specific objectives are to boost the transfer capacity of the power transmission grid to accommodate heightened domestic demand in the medium term, with an acceptable degree of reliability and quality.</p> <p>At the same time, the program, with backing from the World Bank, will support the ENEE restructuring, with a view to improving its management capacity.</p> |                                   |   |
|--|---|-----------------------------------|---|
| <b>Outcome indicators</b>  | <b>Baseline 2007</b>  | <b>Goal</b>                       | <b>Means of verification</b>  |
| <b>Increase in supply to the national grid</b>   |   |                                   |   |
| - Increase the electricity supplied to meet demand in the national interconnected system by at least 5% per year.  | 6,227.5 GWh<br>1,099.8 MW   | 8,167.2 GWh<br>1,466.4 MW in 2012 | Sector statistics compiled by ENEE<br>Records from the dispatch center                  |
| <b>Increase the amount of energy supplies in the projects' areas of influence</b>  |   |                                   |   |
| - Increase the amount of electricity supplied at 138 kV through investments in Toncontín 1   | 75 MW, 412 GWh  | 105.6 MW, 592 GWh in 2011         | ENEE statistics   |
| - Increase amount of electricity supplied at 138 kV through the investments in Amárateca   | 0 MW, 0 GWh   | 132.1 MW, 741 GWh in 2011         | Records of power and energy at the high voltage levels of the corresponding substations |
| - Increase the amount of electricity supplied at 69 kV through the Zamorano substation   | 6.4 MW, 28.1 GWh  | 8.4 MW, 39.1 GWh in 2011          | ENEE statistics   |
| - Increase the amount of electricity supplied at the distribution level between the two substations: Bellavista and El Centro  | 33.3 MW, 152 GWh  | 50.0 MW, 229 GWh in 2012          | Records of power and energy at the high voltage levels of the corresponding substations |
| <b>Increasing the reliability of the transmission service</b>  |   |                                   |   |
| - In normal operating conditions, elimination of scheduled outages at the 230/138 kV transformers in Suyapa and Toncontín and on the 130 kV Río Lindo Santa Fe line. | xx MWh in 2007  | 0 MWh in 2011                     | Operating records of the control center   |
| <b>Institution strengthening and improved management</b>   |   |                                   |   |
| - Improved overall CRI of the ENEE   | 74%   | 84% in 2012                       | ENEE financial statements and program progress report                                   |
| - Net operating result   | Negative  | Positive in 2011                  |   |

| Outcome Indicators   | Base 2007                 | 2008                      | 2009                      | 2010                      | 2011                      | 2012                      |
|--|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|---------------------------|
| - Increase the electricity supplied to meet demand in the national interconnected system by at least 5% per year.  | 6,227.5 GWh<br>1,099.8 MW | 6,597.4 GWh<br>1,184.5 MW | 7,009.5 GWh<br>1,258.5 MW | 7,377.5 GWh<br>1,324.6 MW | 7,775.8 GWh<br>1,396.1 MW | 8,167.2 GWh<br>1,466.4 MW |
| - Increase the amount of electricity supplied at 138 kV through investments in Toncontín 1   | 75 MW,<br>412 GWh         | 75 MW,<br>412 GWh         | 75 MW,<br>412 GWh         | 75 MW,<br>412 GWh         | 105.6 MW,<br>592 GWh      | 105.6 MW,<br>592 GWh      |
| - Increase the amount of electricity supplied at 138 kV through investments in Amárateca   | 0 MW,<br>0 GWh            | 0 MW,<br>0 GWh            | 0 MW,<br>0 GWh            | 0 MW,<br>0 GWh            | 132.1 MW,<br>741 GWh      | 132.1 MW,<br>741 GWh      |
| - Increase the amount of electricity supplied at 69 kV through the Zamorano substation   | 6.4 MW,<br>28.1 GWh       | 6.4 MW,<br>28.1 GWh       | 6.4 MW,<br>28.1 GWh       | 6.4 MW,<br>28.1 GWh       | 8.4 MW,<br>39.1 GWh       | 8.4 MW,<br>39.1 GWh       |
| - Increase the amount of electricity supplied at the distribution level between the two substations: Bellavista and El Centro                                    | 33.3 MW,<br>152 GWh       | 33.3 MW,<br>152 GWh       | 33.3 MW,<br>152 GWh       | 33.3 MW,<br>152 GWh       | 33.3 MW,<br>152 GWh       | 50.0 MW,<br>229 GWh       |
| - In normal operating conditions, elimination scheduled outages at the 230/138 kV transformers in Suyapa and Toncontín and on the 130 kV Río Lindo Santa Fe line | xx MWh                    | xx MWh                    | xx MWh                    | xx MWh                    | 0 MWh                     | 0 MWh                     |
| - Improvements in ENEE's overall CRI   | 74%                       | 76%                       | 78%                       | 80%                       | 82%                       | 84%                       |
| - Net operating results  | Negative                  | Negative                  | Negative                  | Negative                  | Positive                  | Positive                  |

| Outcomes indicators   |              |      |      |                   |      |
|---|--------------|------|------|-------------------|------|
| Component 1. Transmission works and transformation  |              |      |      |                   |      |
|   | Base<br>2007 | 2008 | 2009 | 2010              | 2011 |
| - Additional capacity in 230/138 kV transformation available in Amárateca<br>- Additional capacity in 230/34.5 kV transformation available in Amárateca     | 0 MVA        | +0   |      | 150 MVA<br>50 MVA | +0   |
| - Additional capacity in 230/138 kV transformation available in Toncontín I<br>- Additional capacity in 230/13.8 kV transformation available in Toncontín I | 0 KVA        | +0   | +0   | 150 MVA<br>50 MVA | +0   |
| - Additional capacity in 69/34.5 kV transformation in Zamorano  | 0 KVA        | +0   | +0   | 30 MVA            | +0   |
| - Additional capacity in 138/13.8 kV transformation in El Centro  | 0 KVA        | +0   | +0   | 50 MVA            | +0   |
| Component 2. Support for the ENEE corporate restructuring   |              |      |      |                   |      |
| - Support for short-term transmission planning  | 0            | *    | *    | *                 | *    |
| - Improvement of business management systems  | 0            | *    | *    | *                 | *    |
| - Definition and implementation of corporate restructuring plan and creation of ENEE business units   | 0            | *    | *    | *                 | *    |

\*/ These indicators will be established on the basis of the work of the consultants engaged to assist with the corporate restructuring component (paragraph 3.9)

**NATIONAL ELECTRICAL POWER COMPANY**  
**ENERGY SECTOR SUPPORT PROGRAM II – FIRST LOAN (HO-L1019)**  
**PROCUREMENT PLAN SUMMARY TABLE**  
**(JUNE 2008)**

| Ref. No. | Procurement by category             | Estimated cost (in US\$) | Procurement method | Type of procurement     | Review (ex ante or ex post) | IDB | ENEE | Prequalif. | Publication SPN   | Completion of contract |
|----------|-------------------------------------|--------------------------|--------------------|-------------------------|-----------------------------|-----|------|------------|-------------------|------------------------|
|          |                                     |                          |                    |                         |                             |     |      |            |                   |                        |
| 1        | Consulting and supervisory firm     | 848,000                  | QCBS               | Consulting services     | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2008 | June 2012              |
| 2        | Program auditing                    | 300,000                  | QCBS               | Consulting services     | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2009 | Apr 2012               |
| 3        | Administrative/financial consultant | 110,000                  | SIC                | Consulting services     | Ex ante                     | 100 | 0    | NO         | 1st. Quarter 2009 | May 2012               |
| 4        | Procurement specialist              | 110,000                  | SIC                | Consulting services     | Ex ante                     | 100 | 0    | NO         | 1st. Quarter 2009 | Dec 2010               |
| 5        | Program monitoring and evaluation   | 50,000                   | SIC                | Consulting services     | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2009 | Apr 2012               |
| 6        | Project environmental management    | 70,000                   | SIC                | Consulting services     | Ex ante                     | 100 | 0    | NO         | 1st. Quarter 2009 | May 2012               |
| 7        | Socioenvironmental strategy         | 156,000                  | SIC                | Consulting services     | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2009 | June 2012              |
| 8        | <b>Substations:</b>                 |                          | ICB                | Goods and related works | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2008 | Jan 2012               |
|          | Amárateca                           | 19,939,000               |                    |                         |                             |     |      |            |                   |                        |
|          | Zamorano                            | 1,258,000                |                    |                         |                             |     |      |            |                   |                        |
| 9        | Corporate restructuring plan        | 3,000,000                | QCBS               | Consulting services     | Ex ante                     | 100 | 0    | NO         | 2nd. Quarter 2009 | Sept 2012              |

ICB: International competitive bidding  
SIC: Selection based on individual consultant  
QCBS: Quality- and cost-based selection  
QBS: Quality-based selection

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-\_\_\_/08

Honduras. Loan \_\_\_\_/BL-HO to the Republic of Honduras  
Energy Sector Support Program II – First Project

The Board of Executive Directors

RESOLVES:

That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank, to enter into such contract or contracts as may be necessary with the Republic of Honduras, as Borrower, for the purpose of granting it a financing to cooperate in the execution of an energy sector support program II – first project. Such financing will be for the amount of up to US\$8,565,000, from the resources of the Bank's Fund for Special Operations, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Approved on \_\_\_\_ 2008)

LEG/SGO/CID/IDBDOCS#1603728  
HO-L1019