DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PANAMA

INVESTMENT AND CORPORATE TRANSFORMATION PROGRAM FOR EMPRESA DE TRANSMISIÓN ELÉCTRICA (ETESA) PHASE I

(PN-L1031)

LOAN PROPOSAL

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Electronic Links
Required
1. Annual work plan (AWP) **http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1638476**
2. Monitoring and evaluation arrangements **http://**idbdocs**.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1541686**
3. Environmental and social management report (ESMR) **http://idbdocs.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1541690**
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Other References
1. Executive summary: Diagnostic analysis of ETESA's corporate governance Report available in the physical files
2. Analysis of the company's financial sustainability **http://**idbdocs**.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1589069**
3. Technical and economic evaluation of transmission projects **http://**idbdocs**.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1589043**
4. Preliminary report: Consolidation of ETESA's uncertainty-based planning process **http://**idbdocs**.iadb.org/wsdocs/getDocument.aspx?DOCNUM=1589030**

ABBREVIATIONS

ANAM	Autoridad Nacional del Ambiente [National Environmental Authority]
ASEP	Autoridad de Servicios Públicos [Public Utilities Authority]
COPE	Comisión de Política Energética [Energy Policy Commission]
ESA	Environmental and social assessment
ESMP	Environmental and social management plan
ESMR	Environmental and social management report
ETESA	Empresa de Transmisión Eléctrica S.A. [Electric Transmission Company]
IRR	Internal rate of return
NSG	Nonsovereign guarantee
PATC	Plan de Acción para la Transformación Corporativa [corporate transformation action plan]
SIEPAC	Sistema de Interconexión Eléctrica para America Central [Central American Electrical Interconnection System]

PROJECT SUMMARY

PANAMA
INVESTMENT AND CORPORATE TRANSFORMATION PROGRAM FOR EMPRESA DE TRANSMISIÓN ELÉCTRICA (ETESA)
PHASE I
(PN-L1031)

Financial Terms and Conditions					
Borrower: Empresa de Transmisión Eléctrica S.A.				Amortization period:	25 years
Guarantor: Republic of Panama				Grace period:	4.5 years
Executing agency: Empresa de Transmisión Eléctrica S.A.				Disbursement period:	4.5 years
Source	**Amount (US$ millions)**		**Total**	Interest rate:	Adjustable
	Phase I	**Phase II**		Inspection and supervision fee:	*
				Credit fee:	*
IDB (Ordinary Capital)	12.5	20.0	32.5	Currency:	U.S. dollars from the Single Currency Facility
Local	12.5	20.0	32.5		
Total	25.0	40.0	65.0		

Project at a glance

Project objective and description:

The objective of the proposed program is to ensure the sufficiency, reliability, and quality of power transmission services and to contribute to the sustainable and efficient development of Panama's electric power sector. Specifically, the first phase will finance infrastructure and support the corporate transformation of Empresa de Transmisión Eléctrica S.A. (ETESA).

Special contractual conditions:

(i) The program's activities must be carried out as specified in the environmental and social management report (ESMR) (paragraph 2.3); (ii) the award of the program's construction contracts and the start-up of the works will be contingent on evidence that the necessary rights-of-way have been obtained, as indicated in paragraph 2.12; and (iii) the borrower must monitor the financial indicators and comply with the conditions in paragraph 2.20.

Conditions for processing phase II. It must be demonstrated, to the Bank's satisfaction, that significant progress has been made in the corporate transformation action plan. Depending on such progress, phase II could be financed with a nonsovereign guaranteed loan, whose financial, eligibility, and due diligence conditions will be determined when the operation is considered by the IDB.

Exceptions to Bank policies: None.

Project qualifies as: SEQ [ ] PTI [ ] Sector [ ] Geographic [ ] Headcount [ ]

Procurement: See the procurement plan

Verified by ESR on: 25 July 2008 (ESR 29-08)

* 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 RESULTS MONITORING

A. Background and results

1.1 Panama has one of the fastest-growing economies in the region, and this has a direct impact on demand for electric power. Expected short-term growth of between 5.7% and 6% in 2007-2010 means that it will need to double generating and transmission capacity in less than 15 years. Apart from investment in generation and transmission capacity, a complete corporate overall of the management of the power transmission utility will be necessary, if the competitive, quality transmission service the economy needs is to be assured.

1.2 Under the current structure in Panama electricity sector, both the public and private sectors compete to provide electricity service for the public. Law 6 of 1997 separated generation, transmission, and distribution activities. Majority private sector participation was introduced for generation and distribution in all companies emerging from the government-owned integrated company. The public transmission company, Empresa de Transmisión Eléctrica S.A. (ETESA), created in the transmission sector, is responsible for expanding and operating the transmission system and for operating the electric power market. The government is responsible for policy and regulation through different line ministries: the Energy Department, the Energy Policy Commission (COPE), and the Public Utilities Authority (ASEP), respectively.

1.3 Operation of the new structure of the electricity sector and the market since 1999 has produced positive results overall. The government has for the most part moved away from financing the sector, while companies with a public component have become more efficient and report dividends. The government is focusing, in coordination with distribution operators, on supporting projects to expand access to service (rural electrification). The sector has been able to boost generating capacity to system requirements but not at the pace or with the diversification of sources that is necessary for the country's burgeoning economy. The reform process has been largely successful but its consolidation calls for adjustments to enable the sector to better address the challenges. One of these adjustments consists of strengthening ETESA so that it can play a more effective role in an energy market dominated by private investors whose decisions must be anticipated in order to meet the system's transmission requirements, with reliable, quality service as called for by statute.

1.4 **Challenges for ETESA's development**. Although ETESA has performed its role in the new sector framework, there are areas that need to be strengthened so it can follow generally-accepted good corporate governance practices, including: (i) improved budget management and control mechanisms for greater investment efficiency; (ii) improvement in ETESA's current corporate governance mechanisms so that they more closely reflect those used by commercial companies, pursuant to Law 6 on electric sector reform; (iii) better mechanisms for project social and environmental management; (iv) fine-tuning of technical planning processes for transmission to provide more timely reporting of the main risks faced by ETESA during the planning process; and (v) improvements in regulations and standards for

the interconnection of small renewable energy sources that add capacity to the system, efficiently scaling and aligning the government subsidy, through ETESA, to the interconnection costs.

1.5 **Program strategy**. The present investment and corporate transformation program for ETESA (the program) would provide support in the form of financing for infrastructure and the process of corporate change, which will help to ensure the sufficiency, reliability, and quality of transmission service and to consolidate the electric sector through ETESA's corporate makeover. A two-stage program has been proposed: (i) phase I, which will be financed with an IDB loan for US$12.5 million guaranteed by the Republic of Panama, to finance short-term investments and support corporate transformation activities to facilitate ETESA's access to nonsovereign guaranteed financing in the future; and (ii) phase II, with a second loan operation specifically earmarked for investment in transmission required in the medium term. That operation will be processed by the IDB after satisfactory progress is made in implementing the action plan for ETESA's corporate transformation (PATC). Eligibility, due diligence, and approval of the operation for phase II, which is expected to be financed with a nonsovereign guaranteed (NSG) operation, will be determined when that operation is considered by the IDB. The amount has been estimated according to ETESA's current projections. The authorities have requested that, once ETESA is declared eligible for nonsovereign guaranteed operations, the possibility of increasing the resources for phase II in order to refinance phase I be evaluated so that the entire program will be financed without sovereign guarantees.

1.6 The first operation will finance phase I, in a total amount of US$25 million, one half of which will be provided by the IDB and the other half by ETESA, for the works required in the short-term transmission plan (2008-2011). Phase II will cost a total of US$40 million, also to be financed in equal parts, for similar transmission works required in the medium term (2012-2015), which will be defined in the transmission plan updates prepared annually by ETESA, in accordance with the transmission regulations.

1.7 **The Bank's strategy with the country and the sector**. The operation is consistent with the country strategy (document GN-2385-1) approved in October 2005 and its update (document GN-2448-5) approved in April 2007. The strategy's first line of action is to enhance economic competitiveness, and specifically to participate in the development of basic infrastructure to improve electric power service and help consolidate infrastructure sector reforms.

1.8 The Bank's strategy in the Panamanian energy sector is based on its Sustainable Energy and Climate Change Initiative (SECCI). This strategy incorporates the present program as well as three technical-cooperation projects with resources from the SECCI and the Infrastructure Fund (InfraFund), to foster the development of an institutional framework for the energy sector and the development of renewable energy sources in Panama. Specifically, technical-cooperation operation PN-T1042 supports efforts to strengthen and raise the capacity of the country's new Energy

Secretariat in the areas of biofuels, energy efficiency, and renewable energy sources development; operation PN-T1059 focuses on support for the national environmental authority (ANAM), in developing a national climate change strategy; and operation PN-T1047 being financed by the InfraFund supports social and environmental feasibility studies of new power transmission investment that would bring electricity from new hydroelectric energy sources in Panama into the national grid. This strategy is expected to actively promote the development of alternative energy sources, diversify the energy matrix, reduce greenhouse gas emissions, and in the medium and long term bring about institutional access to renewable energy sources and the maximization of activities to mitigate and adapt to the effects of climate change.

B. Objective, components, and cost

1.9 The objective of the proposed program is to ensure the sufficiency, reliability, and quality of power transmission services and to contribute to the sustainable and efficient development of Panama's electric power sector, through ETESA's corporate consolidation. Phase I is divided into two components as follows.

1.10 **Component 1. Investments in the transmission network**. Financing will be provided for works to expand and reinforce the network in order to meet higher demand for transmission capacity, regional integration, and new generating projects. The first operation will finance two specific projects: Colon Phase II and the Guasquitas-Changuinola project.

1.11 ***Colon, phase II project***. This project consists of a 230-kV transmission line from Santa Rita to Panama II, divided into two sections—Santa Rita-Chagres (27 km) and Chagres-Panama II (21 km) and expansion of the Santa Rita and Panama II substations. The project responds to the need to strengthen the transmission network in order to boost transmission capacity from Colon to Panama City, which will be necessary to incorporate power from the new 275-MW generating plants currently being built in the Colon area. This project will add necessary transmission capacity in this corridor.

1.12 ***Guasquitas-Changuinola project***. This project consists of expanding a second 230-kV Guasquitas-Changuinola circuit, which includes a new circuit for the 230-kV Guasquitas-Fortuna line and an additional 230-kV circuit for the Fortuna-Changuinola line, and the corresponding expansion of the reception bays and switches at the Guasquitas and Changuinola substations. This expansion is required to meet the basic reliability requirements of systems specified in the transmission regulations. Specifically, the reinforcement will incorporate the additional power generated by the hydroelectric stations being built in the Changuinola zone.

1.13 **Component 2. corporate transformation activities**. During phase I, ETESA will receive support to surmount the challenges related to its corporate management (see paragraph 1.4). Support will be provided by specialized firms that perform the following activities: (i) diagnostic study of the corporate situation; (ii) comparative analysis and suggestion of alternatives based on internationally-accepted corporate

governance practices and operational guidelines for the Bank's nonsovereign guaranteed operations; (iii) consultations with stakeholders; (iv) definition and adoption of the corporate transformation action plan (PATC); and (v) implementation of the PATC. Activities (i) to (iii) are being carried out by consultants financed under InfraFund technical-cooperation project PN-T1047. The final plan will be adopted and implemented during Phase I. The present operation includes funds to enable ETESA to implement the PATC. These activities, which could include legislative, regulatory, and administrative changes and other instruments, will be carried out during phase I.

1.14 The cost and financing of the two stages of the program are presented in Table I.

Investment and Corporate Transformation Program for ETESA									
Investment program (US$ millions)									
Investment category	Phase I			Phase II			Total (7 years)		
	2009 - 2012			2012 - 2015			2009 - 2015		
	IDB	ETESA	Total	IDB	ETESA	Total	IDB	ETESA	Total
1. Engineering and administration	**1.18**	**1.83**	**3.01**	**1.50**	**1.70**	**3.20**	**2.68**	**3.53**	**6.20**
1.1 Engineering, supervision, and studies	0.73	0.58	1.31	1.10	0.90	2.00	1.83	1.48	3.30
1.2 Environmental and social management	0.40	0.40	0.80	0.40	0.40	0.80	0.80	0.80	1.60
1.3 Program administration	-	0.80	0.80	-	0.40	0.40	-	1.20	1.20
1.4 ETESA corporate strategy	0.05	0.05	0.10	-	-	-	0.05	0.05	0.10
2. Direct construction costs	**10.42**	**8.25**	**18.67**	**15.68**	**12.83**	**28.50**	**26.10**	**21.08**	**47.17**
2.1 Colon phase II	6.51	4.34	10.85	-	-	-	6.51	4.43	10.85
2.2 Guasquitas – Changuinola	3.91	3.91	7.83	-	-	-	3.91	3.91	7.83
2.3 Transmission plan 2012-2015	-	-	-	15.68	12.83	28.50	15.68	12.83	28.50
3. Unallocated	**0.90**	**0.91**	**31.81**	**2.83**	**2.28**	**5.11**	**3.73**	**3.20**	**6.92**
3.1 Contingencies	0.18	0.28	0.46	0.59	0.41	1.00	0.77	0.69	1.46
3.2 Escalation	0.72	0.63	1.35	2.24	1.88	4.11	2.95	2.51	5.46
4. Financial costs	**-**	**1.51**	**1.51**	**-**	**3.19**	**3.19**	**-**	**4.70**	**4.70**
4.1 Interest	-	1.39	1.39	-	3.01	3.01	-	4.40	4.40
4.2 Commitment fee	-	0.11	0.11	-	0.18	0.18	-	0.30	0.30
4.3 Inspection and supervision fee	-	-	-	-	-	-	-	-	-
TOTAL	**12.50**	**12.50**	**25.00**	**20.00**	**20.00**	**40.00**	**32.50**	**32.50**	**65.00**

C. Results matrix and principal indicators

1.15 The **outcomes expected** from investment in transmission are: (i) increased power supply owing to the additional transmission and transformer capacity; (ii) greater system reliability, with lower levels of unsupplied power and shorter down-time periods; (iii) improvements in ETESA's corporate management; and (iv) greater capacity and additional tools to expand transmission based on uncertainty management. The detailed indicators are presented in the results framework/matrix of indicators (Annex I).

II. FINANCING STRUCTURE AND MAIN RISKS

A. Financing instruments

2.1 Based on an analysis of ETESA's requirements and on discussions with the Panamanian authorities, it was decided that, to finance phase I of the program, the Bank would extend an investment loan directly to ETESA, with the sovereign guarantee of the Republic of Panama. Once the PATC is implemented, it will be verified that ETESA has fulfilled the conditions set by the Bank for nonsovereign guaranteed loans to public sector entities (document GN-2400-11) and, if so, the operation proposed for phase II would be subject to the financing conditions of NSG loans.

2.2 Eligibility, due diligence, and approval of the second operation will be determined when the operation is considered by the IDB. ETESA now meets some of the basic requirements for the second operation, including the solvency criteria and a robust financial situation, which will be monitored during phase I. The PATC will be implemented during phase I, which seeks to facilitate compliance with the other eligibility conditions for NSG operations.

B. Environmental and social risks and mitigation measures

2.3 When the program was being prepared, an environmental and social assessment (ESA) was performed by a leading expert with extensive experience. The expert's environmental and social management report (ESMR) is available in the program annexes. No significant environmental or social risks were identified in the program projects. The risks identified can be adequately avoided and managed through engineering measures, adherence to the environmental and social management plans, and compliance with program environmental and social measures. ETESA will need to demonstrate to the Bank that the measures contained in the ESMR, including IDB environmental policies and safeguards and national environmental and social legislation, have been satisfied.

2.4 The ESA identified direct, indirect, and cumulative environmental and social impacts, prepared terms of reference for additional environmental and social evaluations required by Panama's environmental authorities, and developed a proposal for environmental and social management procedures for the program and an environmental and social management plan for each program project, including a monitoring plan and a timetable and budget. The program will finance power transmission projects in areas where works have already been built, in most cases, on existing easements.

2.5 The following activities were carried out as part of the ESA: (i) field visits; (ii) analysis of ETESA's environmental and social management capacity; (iii) terms of reference for the additional environmental and social studies required under domestic legislation; (iv) definition of environmental and social management procedures for management of program easements; and

(v) resettlement/compensation activities and inclusion of the environmental and social variable in the project cycle.

2.6 Under Panama's environmental and social legislation, an environmental assessment of program projects must be presented to the National Environmental Authority (ANAM) as a prerequisite for an environmental license. ETESA will handle local environmental formalities. Before the construction contracts are awarded, it will need to send the IDB a copy of the valid environmental licenses issued by ANAM.

2.7 **ETESA's institutional capacity for environmental and social management**. ETESA has the environmental and social management capacity. It currently has an Environment and Social Management Office staff of 17 professionals with broad experience in managing power transmission projects. It has also reconciled the technical aspects of projects with the environmental and social requirements as an additional internal procedure, to take account of environmental sensitivities. Sector experience with IDB-related environmental and social activities includes the Central American Electrical Interconnection System (SIEPAC) line, the environmental and social studies for the Colombia-Panama interconnection line, and the environmental and social management of the first Fortuna-Changuinola circuit. Issues related to natural areas, indigenous communities, and other relevant aspects had to be addressed in each of those projects.

2.8 **Environmental and social impacts**. The environmental and social impacts expected from program projects, short-lived for the most part and minor in nature, will occur during the construction phase. In the Chagres-Panama II section, a new easement will be required. Here, the ESA now identified seven households that may need to be resettled/compensated. ETESA has proper procedures in place that are acceptable to the IDB, as described in the ESMR annex. The resettlement/compensation plan will be based on the Bank's involuntary resettlement policies (OP-710). For the substation expansion, the environmental impacts are concentrated and confined to ETESA's installations, and will occur during the construction phase. Worker health and safety requirements have also been determined. No significant environmental or social impacts were identified during operation and maintenance of the project works.

2.9 It was found that no major environmental liabilities exist for the construction of the second Fortuna-Changuinola circuit. The present easement will remain in effect for this project. The negative environmental impacts of the works in the second circuit will be small and of minor duration and are associated with the construction works, which will be managed through the environmental and social management plan included in the ESMR.

2.10 **Environmental and social management plans (ESMPs)**. Keeping in mind the types of projects to be financed under the program, the main components of the ESMPs will relate to two types of projects: (i) works at substations; (ii) the second Guasquitas-Changuinola transmission line; and (iii) works on the Chagres-Panama II transmission line. The ESMP for the substations includes activities to

manage the construction works, road access, and worker health and safety requirements for the contractors. The ESMP for the second circuit includes measures for design, construction, operation, and implementation and the management of social considerations related to that circuit. For the Chagres-Panama II line, the ESMP includes management activities during each phase of the project and management of social issues relating to obtaining the easement. These issues are all reflected in the ESMR and the terms of reference for the additional environmental and social studies.

2.11 **Supervision.** ETESA will supervise the ESMP activities and the additional environmental studies. Its Environmental and Social Management Office has the capacity to perform this task. The measures recommended in the ESMPs and the additional environmental and social studies will be incorporated into the bidding documents for all the works. The duties of the firm supervises the program will include environmental and social monitoring. The program budget is sufficient to cover the program ESMPs.

2.12 Before executing the program, it will be necessary to show that at least 90% of the rights-of-way have been acquired before the construction contracts are awarded. The start-up of the works will be contingent on it being demonstrated that at least 95% of the easements have been obtained.

C. Fiduciary risk

2.13 This operation poses low fiduciary risk given that ETESA has an acceptable accounting and internal control system, and no events have been reported in recent years that might point to a lack of transparency. No significant reservations have been expressed in its most recent financial statements and they received a clean opinion. An inherent risk is that personnel turnover resulting from a change in administration could affect execution.

2.14 One significant risk factor is the absence of a clear policy governing relations between the Panamanian government as owner, and ETESA as a company, and this is apparent in the absence of a dividend policy, the lack of clear rules on capitalization, and the possibility that the government could dip into ETESA's publicly funded current account, without ETESA's participation. This risk could affect ETESA's general investment program with regard to its expansion plans and the local contribution. To mitigate this risk, the corporate transformation action plan (PATC) has already identified some of these weaknesses, which will be mitigated by the plan.

D. Execution risks

2.15 Execution risks exist with respect to the general problem of ETESA's corporate management, which is currently subject to additional prior controls, over and above those in its establishing legislation, as mentioned in paragraph 1.4. Also, the main risk affecting the transmission works will be obtaining the rights-of-way, particularly for the Colon-Panama II transmission project. The IDB's and ETESA's

experience with the commercial management of easements under the SIEPAC project are considered to mitigate these risks.

E. Other special aspects and risks

Technical and economic feasibility

2.16 ETESA is responsible for regulating the Panamanian electric sector and for preparing indicative least-cost generation and transmission plans that meet the system's security and quality requirements, while taking into account the uncertainty for transmission caused by haphazard investment in power generation. ETESA has the procedure and planning tools to prepare the investment plans on a yearly basis. The works to be financed under the proposed program form part of the 2008-2012 transmission expansion plan, which after consultation with the market agents, was approved by the Public Utilities Authority. ETESA uses widely-recognized software to design its expansion plans and draws on the support of specific specialized consulting services from other transmission companies: (i) to analyze the alternatives for expanding transmission; (ii) to prepare basic and advanced electric studies; and (iii) to perform economic analyses of specific transmission projects.

2.17 The procedure and tools generate an expansion plan that maximizes the benefits of integrated economic operation of a reliable, quality system. Even though ETESA relies on specialized external consulting services and its planning procedures and tools are on the industry's cutting edge, it is essential to assist it during the strengthening process to consolidate the processes and tools it used to draw up the transmission expansion plan. This strengthening plan will be financed under InfraFund technical-cooperation project PN-T1047 (see the electronic annexes to this document).

2.18 As for the economic evaluation of specific projects in the plan to be financed during phase one, the analyses performed took into account the uncertainties arising from development in the generating park, project costs, and fuel prices. The benefits derive from: (i) lower system operating costs in transporting more economical power, mainly from new hydroelectric plants; (ii) avoidance of unserved energy; and (iii) reduction in electricity losses. The analysis indicates that for the Guasquitas-Changuinola project, the benefit/cost ratio exceeds 2% in 90% of all scenarios considered, including 50 hydrological scenarios, five scenarios for generation development, and cost variations of +20%. The probabilistic analysis shows the project's internal rate of return (IRR) exceeds 12% in 95% of the scenarios and 25% in 45% of them. The cumulative probability curves for benefit/cost and IRR are available in the electronic files. In the case of the Colon phase II project, for the same scenarios and sensitivities, the benefit/cost ratios exceed 2% in 90% of the scenarios and the IRR is between 15% and 27% for all scenarios analyzed. In addition to the economic studies, electric analyses were performed to confirm that the works are operational and satisfy reliability and quality requirements. All works will be carried out with technology that is widely

used in the industry and their installation, operation, or maintenance do not present any special technical challenges. Operation and maintenance will follow ETESA's standard procedures.

2.19 **Financial feasibility**. The historical analysis of ETESA's financial statements 2003-2007[1] shows that ETESA's financial situation is satisfactory and that it will be able to operate on a sound footing. Its debt and other commitments, contracted or contingent, are backed by liquid assets that comfortably cover its short- and medium-term requirements. An analysis of ETESA's financial projections for 2008-2017 suggests that the outlook is stable and the figures reasonable based on the scenarios and assumptions used. Table 2 summarizes ETESA's past financial performance and financial projections for the base case scenario, showing average annual projected amounts and indicators for 2008-2011 and 2012-2015 and setting out for comparison the actual results reported for 2004-2007.

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[1] See the consultant's report "Evaluación de Herramientas Financieras y Revisión de la Evolución Económico - Financiera de ETESA y Proyecciones Preliminares" [Evaluation of financial tools. Review of the economic and financial development of ETESA and preliminary projections]. Final report, August 2008, available in the technical files.

Table 2. Summary of ETESA's financial statements
Average annual amounts for the period (US$ millions)

Category	2004-07	2008-11	2012-15
Income statement			
Operating income	44.2	51.3	59.3
Operating expenses	16.0	18.6	21.0
Earnings before interest, taxes, depreciation, and amortization (EBITDA)	**28.2**	**32.7**	**38.3**
Other income and expenses (including depreciation)	-13.0	-17.8	-19.1
Net earnings before taxes	**15.2**	**14.9**	**19.2**
Income tax	-4.4	-4.2	-5.4
Net earnings	**10.7**	**10.7**	**13.9**
Source and application of funds			
EBITDA less taxes	23.8	27.6	32.7
Capital contributions and capitalizations	0.0	2.1	0.0
External loans	5.1	8.0	5.3
Total sources	**28.9**	**37.6**	**38.0**
Debt service	7.2	8.0	9.5
Investments	15.5	27.0	19.1
Changes in working capital	-0.1	0.5	-0.6
Other uses (including dividends)	3.1	6.6	9.4
Total uses	**25.7**	**42.1**	**37.4**
Increase/decrease in cash balance	**3.1**	**-4.5**	**0.6**
Balance sheet			
Total assets	275.4	311.0	313.0
Liabilities	87.7	89.8	77.9
Equity	187.8	221.2	235.2
Indicators			
EBITDA coverage/financial expenses	26.0	10.0	13.4
EBITDA coverage/debt service	4.1	4.2	4.0
Ratio EBITDA-debt service/investments	1.5	0.9	1.9
Total liabilities/total assets	31.9%	28.9%	24.9%
Net earnings/total earnings	24.3%	20.9%	21.9%
EBITDA/total earnings	63.8%	63.7%	64.5%
Earnings before taxes/assets in service (ROA-BT)	8.2%	6.4%	7.4%
Net earnings/assets in service (ROA)	5.8%	4.6%	5.3%

2.20 The sensitivity analyses indicate that the results of the next rate review may partly condition ETESA's performance and, barring a severe reduction in income, no major changes will occur to alter ETESA's financial situation. It is recommended that financial developments be monitored continuously so that the investment program can be adjusted to changes in demand and earnings. Accordingly, it is recommended that ETESA make the following commitments to the Bank:

a. During the loan-disbursement period, in order to assume principal or other similar obligations in connection with new works that demand annual payments of more than 5% of its average net fixed assets in service, it will need to demonstrate, to the Bank's satisfaction, that such obligations are economically and technically justifiable and will have no adverse impact on its financial situation or on the execution of the present program.

b. For the duration of the loan contract, it will not assume new financial obligations with due dates of more than one year without the Bank's prior

approval if, as a result, the long-term debt to asset ratio exceeds 0.5 and long-term debt service coverage is less than 1.5.

III. IMPLEMENTATION AND MANAGEMENT PLAN

A. Summary of implementation arrangements

3.1 ETESA will be the borrower and executing agency and the Republic of Panama will be the guarantor. The IDB will sign a loan contract with ETESA and a guarantee contract with the Panamanian government.

3.2 ETESA has the human and financial resources necessary to execute the program efficiently and its experience with other Bank-financed projects, such as the very recent lending operation 1113/OC-PN, has been satisfactory. Under the implementation plan, the Executive Directorate for Transmission will handle all technical issues and procurement of works and various engineering and supervisory services. The Executive Directorate for Corporate Services and Finance will be in charge of budget, disbursement programming, and financial monitoring in general.

3.3 The Environmental Office will support the environmental and social supervision of the program. The construction and supervision documents will include the socioenvironmental considerations described in Chapter II, Section B, of this document. The issues relating to monitoring the implementation of the corporate transformation action plan (PATC) (paragraph 1.13) will be the responsibility of the Executive Directorate for Corporate Services and Finance, with the direct support of the General Manager's Office and ETESA's board of directors. Responsibility for the plan for strengthening procedures and tools for the expansion of transmission (paragraphs 2.17 and 2.18) will fall to the Executive Directorate for Integrated Operations, whose functions include planning and operation of the transmission system and power dispatching.

3.4 **Procurement of goods and services**. Procurement of goods and services, contracts for works, and the selection and engaging of consulting services will take place in accordance with IDB policies (documents GN-2349-7 and GN-2350-7). The procurement plan attached covers all the principal contracts for the projects to be financed in phase one and also indicates the type of procurement review to be used.

3.5 **Disbursements**. Disbursement requests will need to be backed by the supporting documentation required by the Bank for ex ante review. If, however, the Bank feels that sufficient progress has been made in implementing the PATC in the areas of financial administration and control, it may decide to supervise the operation using ex post review criteria.

B. Summary of arrangements for monitoring results

3.6 Annual administration missions will be arranged to ensure proper technical, environmental, financial, and operational monitoring. ETESA will submit to the Bank semiannual progress reports showing the progress made in each component and overall program performance, based on the indicators agreed in the results

framework/matrix of indicators. The reports will also provide: (i) a description of the activities carried out; (ii) updated timetables for physical execution and disbursements; (iii) a description of the extent to which the execution indicators have been attained; (iv) a list of activities scheduled for the following six-month period; (v) a summary of program financial execution and its status and the projected flow of funds for the following six-month period; (vi) a section identifying possible developments or events that could jeopardize program execution; (vii) a section on program socioenvironmental management; and (viii) in each year's final semiannual report, an annual work plan including, if applicable, an updated procurement plan. These results will be evaluated using a series of objective technical indicators specified in the results framework/matrix of indicators, to be determined before, during, and after the program, and will be used to update the Project Performance Monitoring Report (PPMR).

3.7 The borrower will compile, file, and keep such information, indicators, and parameters, including annual work plans, that the Bank may need to prepare the PPMR and the Project Completion Report. The program will monitor the physical and financial goals and evaluate their impact through the program administration subcomponent. These reports will include a semiannual update of the program outcomes indicators.

3.8 **External audit**. For the duration of the program, ETESA will present to the Bank its own annual consolidated financial statements and those of the program within 120 days after the close of each fiscal year. The audits will be performed by an independent firm of auditors acceptable to the Bank, in accordance with terms of reference approved in advance by the latter (documents AF-400 and AF-500). The procedures established in the external audit bidding document (AF-200) will be used to select and hire the firm. The loan will be used to defray the cost of the audits.

C. Significant activities after approval

3.9 To expedite initial disbursement of the loan, both ETESA and the Ministry of Economic Affairs and Finance will complete the necessary internal formalities in Panama to make the loan effective by the end of the present year. In technical areas, ETESA will continue to arrange for such easements as may be necessary for the works. As to preparation of the PATC to be implemented during the operation, the Bank will support ETESA in its dialogue with energy sector authorities to complement the other IDB activities in the sector.

INVESTMENT AND CORPORATE TRANSFORMATION PROGRAM FOR ETESA. PHASE I (PN-L1031)
RESULTS FRAMEWORK/MATRIX OF INDICATORS

Objective	The objective of the proposed program is to ensure the sufficiency, reliability, and quality of power transmission services and to contribute to the sustainable and efficient development of the Panamanian electricity sector. Specifically, the first phase is intended to provide reliable and efficient power supplies to meet growing demand by the public and the economy in the short term. The specific objectives are: (a) to boost the capacity and quality of transmission service and provide access to new generating capacity, meeting the demand for energy; and (b) to help consolidate the electric power sector through the consolidation of ETESA's corporate management.

Outcome indicators	Baseline 2008	Goal	Means of verification
Increase in the power supplied to the national grid			
Annual increase in the amount of power supplied to the national grid by an average of 5.47% in energy (GWh) and an average of 5.4% in power (MW).	8,412.9 GWh (5.94%) 1,356.5 MW (5.88%)	8,881.9 GWh 2012 (5.57%) 1,431.2 MW (5.51%) 9,352.0 GWh 2013 (5.29%) 1,506.0 MW (5.22%) 9,824.4 GWh 2014 (5.05%) 1,581.1 MW (4.98%)	Demand projection contained in the 2008-2022 plan to expand the national grid.
Increase in demand served in the project areas, based on reliability and quality criteria			
In the Colon Phase II zone	383 MW	553.8 MW in 2011 750.8 MW in 2012 750.8 MW in 2013 750.8 MW in 2014	Simulation of the transmission system with and without the investments in transmission, through load flow studies. Register of operating events of the National Load Dispatch Center.
In the Guasquita-Changuinola zone	187 MW	237 MW in 2011 237 MW in 2012 237 MW in 2013 237 MW in 2014	
Reduction in power losses in the project areas.	4.45 MW in 2011 (without the project)	3.39 MW in 2011 (with the project)	

Outcome indicators	Baseline 2008	Goal	Means of verification
Corporate makeover of ETESA			
Adoption of the action plan for the corporate transformation of ETESA by the company's board.	20%	100% in 2009. Formal adoption by the board of directors and main shareholder, represented by the Ministry of Economic Affairs and Finance.	Project monitoring reports
Progress in implementing the action plan.	0%	30% in first four months of 2009. Actions that are the responsibility of management. 70% in the last four months of 2009. Actions that are the responsibility of the board of directors. 100% in the second quarter of 2010. Issue of specific legal instruments.	
Compliance with the IDB's eligibility criteria for nonsovereign guaranteed operations (document GN-2400-11).	20%	100% by the third quarter of 2009.	

Outcome indicators	2008	2009	2010	2011	2012
- Increase in the nominal capacity of transmission lines in the Colon-Panama corridor of +250 MVA	+0	+0 MVA	+0 MVA	+250 MVA	+0 MVA
- Increase in the nominal capacity of transmission lines in the Guasquitas - Changuinola corridor of +250 MVA	+0	+0 MVA	+0MVA	+250 MVA	+0 MVA
- Progress in implementing the corporate transformation action plan	20 %	70%	100%	-	-
- Compliance with the IDB's eligibility criteria for nonsovereign guaranteed operations (document GN-2400-11).	20 %	100%	-	-	-

INVESTMENT AND CORPORATE TRANSFORMATION PROGRAM FOR ETESA (PN-L1031)
GENERAL PROCUREMENT PLAN

General information

Country:	Panama
Borrower:	Empresa de Transmisión Eléctrica, S. A. (ETESA)
Guarantor:	Republic of Panama
Executing agency:	Empresa de Transmisión Eléctrica, S. A. (ETESA)
Project title:	Investment and corporate transformation program for ETESA
Loan contract No.:	
Date of approval:	
Date of signature of the loan contract:	
Expected date of the last disbursement:	2012

Project objectives and components

The objective of the proposed program is to help ETESA finance infrastructure for its expansion plan that is needed in the short term as part of a corporate transformation to consolidate the company nationally in its role as the agency responsible for transmission and operation of the electric power system and market. It will also further the efficient development of the Panamanian electric sector. This objective will be achieved through the activities envisaged in the following program components.

Component 1: Investments in the power transmission system

1.1 Will consist of investments to boost the carrying capacity of the transmission system, to provide timely service and give access to the new generating capacity to be installed in the system in the short term. The works to be financed will be located: (i) in the city of Colon (Atlantic zone) and Panama City in order to provide the transmission capacity required for the thermal power generation facilities being installed in the Atlantic zone; and (ii) in the provinces of Bocas del Toro (Atlantic zone) and of Chiriquí, both of which share a border with Costa Rica, in order to provide reliable transmission capacity for the new hydroelectric plants currently being built in Bocas del Toro.

Component 2: Support for implementation of a corporate transformation action plan

2.1 This component will consist of consulting services to support ETESA in the process of implementing the company's corporate makeover action plan.

A. Introduction

The bidding process and the awarding of contracts for the project will be carried out in accordance with:

- The Policies for the Procurement of Works and Goods Financed by the IDB (document GN-2340-7) of August 2006.
- The Policies for the Selection and Contracting of Consultants Financed by the IDB (document GN-2350-7) of August 2006.
- Loan contract PN-L1031
- The procurement plan

B. Procurement plan

The procurement plan, which covers 18 months of the project, has been agreed on between the Bank and ETESA. The plan, attached in summary form as Appendix 1, outlines the procurement procedure for each contract or group of contracts for goods, works, and services, and the selection methods for consultants, cases in which prequalification is required, the estimated cost of each contract or group of contracts, whether ex ante or ex post review by the Bank is required, and the estimated dates of publication of the specific procurement notices and the completion of the contracts included in this project. The procurement plan will be updated annually or when necessary or required by the Bank.

C. Project procurements:

A general description of procurement for the project follows.

Procurements of goods and related works. The works to be contracted include the construction of 230-KV and 115-KV transmission lines and the expansion of 230-KV and 115-KV substations. These works are described below.

1. Colon phase II

Consists of the construction of: (a) the Santa Rita–Panama II 230-KV transmission line, involving a 27-km section from Río Chagres to the Panama II substation; (b) the Santa Rita–Caceres 115-KV transmission line, involving a 21-km section from Río Chagres to the Santa Rita substation; (c) expansion of the Santa Rita 115-KV substation by adding two units with two 115-KV switches and their associated equipment; and (d) expansion

of the Panama II 115-KV substation by adding two 115-KV switches and their associated equipment.

2. Guasquitas–Changuinola

Consists of the installation of a second circuit on the Guasquitas–Fortuna 230-KV and the Fortuna–Changuinola 230-KV transmission lines and expansions to the Guasquitas 230-KV and Changuinola 230-KV substations by adding a unit with two 230-KV switches and their associated equipment to each of them.

Procurement of goods for the project subject to international competitive bidding (ICB) will be carried out using the Bank's standard bidding documents. All procurement subject to national competitive bidding (LCB) will use local bidding documentation acceptable to the Bank.

Procurement of nonconsulting services: Not applicable

Procurement of consulting services: Consulting services for the project include:

- Supervisory firms to oversee construction of the Colon phase II and Guasquitas–Changuinola projects.
- An individual consultant to support implementation of the corporate transformation action plan.

The consulting firms will be selected for the project using the standard form for proposals issued by the Bank or a request for proposals that is satisfactory to the Bank in cases where the standard form is not applicable. For individual consultants, the selection will be made, taking into account the terms of Chapter V of policy GN-2350-7.

The short lists of consultants for services whose estimated cost is under US$200,000 equivalent per contract may consist entirely of local firms.

Operating costs: Not applicable

Advance contracting and retroactive financing: Not applicable

D. Revision by the Bank of contracting decisions

All bids will be subject to ex ante review by the Bank, in accordance with Appendix 1 of the policies on the procurement of works and goods and on the selection of consultants, respectively. The thresholds for international and local publicity are shown in the following table.

Thresholds for international and local publicity
Investment and corporate transformation program for ETESA (PN-L1031)

Type of procurement	Contracting method	Contract thresholds defined on the basis of the procurement amount (US$)
Works	ICB	≥ 3 million
	NCB	< 2 million and ≥ $250,000
	PC	< $50,000
Goods	ICB	≥ $250,000
	NCB	< $250,000 and ≥ $50,000
	PC	< $50,000
Consulting firms	International publicity	≥ $200,000
	National publicity	< $200,000
Individual consultant	CQS	Any amount
All procurements:	Subject to ex ante revision	

Abbreviations:

Goods and services	**ICB:** International competitive bidding **NCB:** National competitive bidding **PC:** price comparison
Consulting firms	**Selection based on current policies**
Individual consultant	**CQS:** Selection based on the consultant's qualification

E. National preference

Offers of goods that originate in the borrower's country will not any preference with respect to price over goods that originate in other member countries of the Bank.

INVESTMENT AND CORPORATE TRANSFORMATION PROGRAM FOR ETESA (PN-L1031)
GENERAL PROCUREMENT PLAN (JULY 2008)

Ref. No.	Category	Estimated costs (US$000)	Procurement method	Type of procurement	Revision (ex ante or ex post)	IDB	ENEE	Prequalif.	Publication specific procurement notice	Contract completion
1	Supervisory firms	1,307	QCBS	Consulting services	Ex ante	50	50	NO	1st, 2nd, and 3rd quarters 2009 (*)	1st quarter 2012
2	Support for implementation of the corporate transformation action plan	100	CQS	Consulting services	Ex ante	50	50	NO	1st quarter 2009	3rd quarter 2010
3	**Colon phase II** Bidding 1: Santa Rita–Chagres and Chagres–Panama II transmission lines	6,822	ICB	Goods and related works	Ex ante	50	50	NO	1st quarter 2009	4th quarter 2011
4	**Colon phase II** Bidding 2: Expansion Santa Rita and Panama II substations	4,025	ICB	Goods and related works	Ex ante	50	50	NO	2nd quarter 2009	4th quarter 2011
5	**Guasquitas - Changuinola** Bidding 1: Second transmission line circuit Guasquitas - Changuinola	4,446	ICB	Goods and related works	Ex ante	50	50	NO	3rd quarter 2009	4th quarter 2011
6	**Guasquitas – Changuinola** Bidding 2: Expansion of the Guasquitas and Changuinola substations	3,382	ICB	Goods and related works	Ex ante	50	50	NO	3rd quarter 2009	4th quarter 2011

(*) The announcement will be made in relation to the work to be supervised.
ICB: International competitive bidding
CQS: Selection based on the consultant's qualifications
QCBS: Quality- and cost-based selection
QBS: Quality-based selection

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-__/08

Panama. Loan ____/OC-PN to Empresa de Transmisión Eléctrica S. A.
Investment and Corporate Transformation Program for Empresa de
Transmisión Eléctrica (ETESA). Phase I

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 Empresa de Transmisión Eléctrica S.A. (ETESA), as Borrower, and the Republic of Panama, as Guarantor, for the purpose of granting it a financing to cooperate in the execution of an investment and corporate transformation program for Empresa de Transmisión Eléctrica (ETESA). Phase I. Such financing will be for the amount of up to US$12.500.000, from the resources of the Single Currency Facility of the Bank's Ordinary Capital, and will be subject to the Financial Terms and Conditions and the Special Contractual Conditions of the Project Summary of the Loan Proposal.

(Adopted on __ _______ 2008)

LEG/SGO/CID/IDBDOCS#1583350
PN-L1031