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The World Bank

Report No: ICR0000822

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IDA-34840)

ON A

CREDIT

IN THE AMOUNT OF SDR 22.2 SDR MILLION
(US\$ 35.91 MILLION EQUIVALENT)

TO THE

KINGDOM OF LESOTHO

FOR A

UTILITIES SECTOR REFORM PROJECT

September 29, 2008

Finance and Private Sector Development
Eastern and Southern Africa
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective September 26, 2008)

Currency Unit = Maloti (LSL)

1 SDR = US\$ 1.57

1 US\$ = 8.17 LSL

FISCAL YEAR

January 1 – December 31

ABBREVIATIONS AND ACRONYMS

AFC	Audit and Finance Committee
AfDB	African Development Bank
ACR	Assignment Completion Report
ATES	Access To Electricity Study
AVM	Automatic Vending Machine
APL	Adaptable Program Loan
BOD	Board Of Directors (LEC)
BTL	Bethlehem Technologies Limited
BTS	Base Transceiver Stations
CAS	Country Assistance Strategy
CBL	Central Bank of Lesotho
CMC	Caretaker Management Contract
CSP	Country Strategy Paper
DCA	Development Credit Agreement
DMD	Deputy Managing Director
DOE	Department Of Energy
EAPP	Electricity Access Pilot Project
EC	Evaluation Committee
EEC	Engineering & Electrification Committee
EECL	Econet Ezi-Cel Lesotho
EU	European Union
FMC	Financial Management Committee
GOL	Government of Lesotho
GPS	Geographic Positioning System
HIV	Human Immuno-deficiency Virus
HR	Human Resources
HRAC	Human Resources and Administration Committee
IBS	Incentive Bonus Scheme
ICA	Investment Climate Assessment
ICR	Implementation Completion and Results Report
ICT	Information and Communications Technology
IDA	International Development Association
IFAD	International Fund for Agricultural Development

IFC	International Finance Corporation
IMF	International Monetary Fund
IMTF	Interim Management Task Force
ISR	Implementation Status Report
kV	Kilovolt
kW	Kilowatt
kWh	Kilowatt Hour
LEA	Lesotho Electricity Authority
LEC	Lesotho Electricity Corporation/Company
LHDA	Lesotho Highlands Development Authority
LHWP	Lesotho Highland Water Project
LRA	Lesotho Revenue Authority
LS	Lisente
LTA	Lesotho Telecommunication Authority
LTC	Lesotho Telecommunication Corporation
LURP	Lesotho Utilities (Sector) Reform Project
LUSAP	Lesotho Utility Services Access Project
LUT	Lesotho Unit Trust
M	Maloti
MC	Management Contractor
MCC	Millennium Challenge Corporation
MD	Managing Director
MNR	Ministry Of Natural Resources
MOCST	Ministry of Communication, Sciences and Technology
MOFDP	Ministry Of Finance & Development Planning
MW	Megawatt
MTR	Mid Term Review
NEMPS	National Electrification Master Plan Study
NREF	National Rural Electrification Fund
NCC	National Control Center
NURAW	National Union of Retail and Allied Workers
PAD	Project Appraisal Document
PMS	Performance Management System
PSA	Power Sales Agreement
PSC	Public Service Concession (model)
PSPC	Power Sector Policy Committee
PPIAF	Public /Private Infrastructure Advisory Facility
PPP	Public Private Partnership
PPSDP	Privatization and Private Sector Development Assistance Project
PRSP	Poverty Reduction Strategy Paper
PU	Privatization Unit
REWG	Rural Electrification Working Group
REU	Rural Electrification Unit
SACU	South African Customs Union

SAD-ELEC	Southern African Development through Electricity (Pty) Ltd
SAG	Sales Advisory Group
SAPP	Southern African Power Pool
SC	Steering Committee (for LEC restructuring)
SWER	Single Wire Earth Return
TA	Technical Assistance
TL	Telecom Lesotho
TTL	Task Team Leader
VA	Vending Agent
VCL	Vodacom Lesotho
WASA	Water and Sanitation Authority
WB	World Bank

Vice President: Obiageli Katryn Ezekwesili
Country Director: Ruth Kagia
Sector Manager: Gerardo Corrochano
Project Team Leader: Gilberto de Barros
ICR Team Leader: Michaela Weber

COUNTRY
Project Name

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A. Basic Information			
Country:	Lesotho	Project Name:	Utilities Sector Reform Project
Project ID:	P070673	L/C/TF Number(s):	IDA-34840
ICR Date:	09/30/2008	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	GOVERNMENT OF LESOTHO
Original Total Commitment:	XDR 22.2M	Disbursed Amount:	XDR 20.9M
Environmental Category: B			
Implementing Agencies: Ministry of Finance and Development Planning (Recipient)			
Cofinanciers and Other External Partners: African Development Bank European Commission			

B. Key Dates				
Process	Date	Process	Original Date	Revised / Actual Date(s)
Concept Review:	04/12/2000	Effectiveness:	05/17/2001	05/17/2001
Appraisal:	09/05/2000	Restructuring(s):		
Approval:	03/29/2001	Mid-term Review:	09/15/2003	11/10/2003
		Closing:	12/31/2005	12/31/2007

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Moderately Satisfactory
Risk to Development Outcome:	Substantial
Bank Performance:	Moderately Satisfactory
Borrower Performance:	Moderately Satisfactory

C.2 Detailed Ratings of Bank and Borrower Performance (by ICR)			
Bank	Ratings	Borrower	Ratings
Quality at Entry:	Moderately Unsatisfactory	Government:	Moderately Satisfactory
Quality of Supervision:	Satisfactory	Implementing Agency/Agencies:	Moderately Satisfactory
Overall Bank Performance:	Moderately Satisfactory	Overall Borrower Performance:	Moderately Satisfactory

C.3 Quality at Entry and Implementation Performance Indicators			
Implementation Performance	Indicators	QAG Assessments (if any)	Rating
Potential Problem Project at any time (Yes/No):	Yes	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	No	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Satisfactory		

D. Sector and Theme Codes		
	Original	Actual
Sector Code (as % of total Bank financing)		
Central government administration	50	15
General finance sector	2	5
Power	48	70
Telecommunications		10
Theme Code (Primary/Secondary)		
Infrastructure services for private sector development	Secondary	Secondary
Legal institutions for a market economy	Secondary	Secondary
Other rural development		Secondary
Regulation and competition policy	Secondary	Primary
State enterprise/bank restructuring and privatization	Primary	Primary

E. Bank Staff		
Positions	At ICR	At Approval
Vice President:	Obiageli Katryn Ezekwesili	Callisto E. Madavo
Country Director:	Ruth Kagia	Fayez S. Omar
Sector Manager:	Gerardo M. Corrochano	Demba Ba
Project Team Leader:	Michaela J. Weber	Mohua Mukherjee
ICR Team Leader:	Michaela J. Weber	
ICR Primary Author:	Michaela J. Weber	

F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document)

The Project was to address the infrastructure constraint in the implementation of Government of Lesotho's ongoing private sector led development strategy. Specifically,

the project was to seek to improve business infrastructure such as electricity and telecommunication services, including provisions for internet connectivity in the future. The low level of coverage at project start has proven to be a bottleneck to attracting private investment.

This objective would be achieved by the following: (i) the privatization of the Lesotho Electricity Corporation (LEC) and consolidation of the Lesotho Telecommunications Corporation (LTC) privatization; and (ii) the introduction of a stable, transparent, and modern utilities regulatory framework for both sectors.

The reforms were expected to pave the way for private sector investment capital and management to help improving the coverage, efficiency, affordability and reliability of electricity and telecommunications services, thus releasing scarce Government resources to be redirected to priority activities such as social service delivery, and ensuring that the benefits of privatization are shared with the local population.

Revised Project Development Objectives (as approved by original approving authority)

(a) PDO Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Complete the installation of 8,000 new connections by IMTF no late than July 31, 2002.			
Value quantitative or Qualitative)	23,529 electricity connections in March 2001.	31,529 customers (23,529 plus 8,000)		By 31 July, 2002 5,014 or 63% of the targeted connections were achieved. Target was achieved by 30 November 2002.
Date achieved	03/31/2001	07/31/2002		11/30/2002
Comments (incl. % achievement)	Post-IMTF the LEC Board had set the Management Contractor a target of 8,000 connections per year. By project end 40,361 electricity connections were made with an average of 6,218 connections per year, that is 78% achievement of the new yearly target.			
Indicator 2 :	Define service territory to be connected by strategic investor according to timetable in the PIP.			
Value quantitative or Qualitative)	n.a.	n.a.		Service territory report was submitted by 27 September 2001 according to PIP.
Date achieved	12/28/2001	06/30/2002		09/27/2001

Comments (incl. % achievement)	Service territory study defines the areas in which the proposed strategic investor in LEC is responsible for establishing and maintaining connections.			
Indicator 3 :	Complete the divestiture of the Lesotho Electricity Corporation (LEC) by no later than December 31, 2002 and consolidation of LTC privatization by the same date.			
Value quantitative or Qualitative)	LEC is a public corporation. Telecom indicators see PDO indicators 8 and 9.	Majority of LEC capital stock is held by a private sector investor by no later than December 31, 2002 and achievement of one employee per 100 connections at LTC by December 31, 2004.		Bidding took place and Government declared the bidding process a failure for non-compliance. In December 2006 LEC converted into a public company. Telecom indicators see PDO indicators 8 and 9.
Date achieved	03/30/2001	12/31/2002		12/20/2006
Comments (incl. % achievement)	The Government of Lesotho changed the privatization strategy from sale to public service concession in March 2003. Two bidding rounds failed.			
Indicator 4 :	Budgetary transfers to LEC reduced to zero, no later than December 31, 2002.			
Value quantitative or Qualitative)	LEC losses were at Maloti 32 million losses in 2001 before the Project started. This represents an approximate amount of US\$5,000,000 in losses.	Zero budgetary transfers to LEC.		LEC made profits in FY 2006 and FY 2007.
Date achieved	05/02/2003	12/31/2002		03/31/2006
Comments (incl. % achievement)	The average profit after taxes was M39 million per year for FY 2006 and FY 2007, equivalent to US\$ 5.6 million. The Government however still makes transfers for specific electrification projects, in FY 2006 the transfers were for US\$ 1 million.			
Indicator 5 :	Establishment of electricity regulator no later than June 30, 2003.			
Value quantitative or Qualitative)	No tariff increase for 10 years.	Definition of regulatory functions, establishment of an independent regulatory agency (key staff appointed) operational procedures established.		Regulator for electricity was established in August 2004 and started to fulfill its regulatory functions (licenses, reviews and decisions on tariffs) in December 2006 following the 2006 Amendement to the LEA Act 2002.

Date achieved	05/31/2002	06/30/2003		12/31/2007
Comments (incl. % achievement)	LEA fulfills its tariff setting functions and monitors LEC performance. The LEA Amendment of 2006 however restricts some of LEA's independence. The budget is now determined by the MNR instead of by licensing fees which constitutes best practice.			
Indicator 6 :	Establish Unit Trust and warehousing facility by no later than March 31, 2002; by June 30, 2003 at least 200 local investors shall have invested under the said mechanism.			
Value quantitative or Qualitative)	n.a.	Establish a Unit Trust which will have at least 200 investors by June 30. 2003. Warehousing facility established.		Lesotho Unit Trust (LUT) was established in August 2001 ahead of schedule. By October 2003 the LUT had 1,605 investors, 10 of which are institutional investors (see MTR). The study for warehousing facility was conducted. The implementation did not follow.
Date achieved	01/01/2002	06/30/2003		10/31/2003
Comments (incl. % achievement)	By mid July 2007 the LUT had 2,445 investors with an investment level of around US\$ 28 million; by mid December 6.2% of fund value were shares of privatized firms. Following a feasibility study, a warehousing facility was not introduced.			
Indicator 7 :	Completion of Muela commercialization study in accordance with timetables set forth in the PIP, and implementation of recommendations also in accordance with the PIP.			
Value quantitative or Qualitative)	n.a.	Study complete by 2002.		Study complete by 2002.
Date achieved	06/30/2003	03/31/2002		03/31/2003
Comments (incl. % achievement)	Recommendations for commercialization of Muela were included in the privatization scheme and have not been implemented as yet. An upcoming financial and economic model for electricity would introduce accounting for Muela that would ringfence it.			
Indicator 8 :	1 employee per 100 telephone connections at Lesotho Telecom Corporation (LTC) by 31 December 2004.			
Value quantitative or Qualitative)		1 employee per 100 customers at Lesotho Telecom Corporation.		1 employee per 100 customers at LTC (now TL) was achieved by March 2005.
Date achieved		12/31/2004		03/31/2005

Comments (incl. % achievement)	Data only exists for the end of each fiscal year. This indicator was not tracked continuously.			
Indicator 9 :	Additional 25,000 working telephone lines by December 31, 2002 and a further 15,000 new phone lines by December 31, 2004.			
Value quantitative or Qualitative)	46,200 telephone subscribers (27,000 mobile and 19,294 fixed).	86,200 (40,000 additional) phone lines.		86,200 subscribers were achieved around May/June 2002. (Indicators were only tracked on a yearly basis.)
Date achieved	05/17/2001	12/31/2004		12/31/2007
Comments (incl. % achievement)	The actual number of total (mobile and fixed) subscribers by 31 Dec. 2007 was 497,984 subscribers (450,925 mobile and 47,059 fixed) reached, that is 523% achievement of December 2004 target.			
Indicator 10 :	Additional 8,000 new electricity connections by 31 July, 2002.			
Value quantitative or Qualitative)	23,529 customers	39,529 customers (23,529 plus 8,000 (see first indicator) plus 8,000).		By July 2002 5,014 new connections were achieved, a total of 28,543 connections, that is 72% achievement. 40,005 customers were achieved by 31 May 2004, one year and 10 months after target date.
Date achieved	03/31/2001	07/31/2002		05/31/2004
Comments (incl. % achievement)	Post-IMTF the LEC Board had set the Management Contractor a target of 8,000 connections per year. By Dec. 2007 63,944 electricity connections were made with an average of 6,218 connections per year.			
Indicator 11 :	By October 31, 2001, at least 40% of LEC employees earmarked for retrenchment have been actually retrenched; By March 31, 2002 at least additional 30% have been retrenched, and by July 31, 2002, the remaining of the said employees have been retrenched.			
Value quantitative or Qualitative)	647 staff in March 2001.	40% of staff retrenched by 31 July 2002 (See PAD).		164 staff were retrenched during 2001 and 2002, 63% of the target of 259 staff.
Date achieved	03/31/2001	07/31/2002		03/31/2005
Comments (incl. % achievement)	Severance packages, financed by the Government were paid to all retrenched staff.			
Indicator 12 :	By July 31, 2001 LEC shall have increased its rate of revenue collection to 85% of outstanding bills; and by December 31, 2001 the said rate of revenue collection shall have been increased and thereafter maintained at 95% of outstanding bills.			
Value	Revenue collection rate	85% by 31 July		Collection was at

quantitative or Qualitative)	was at 19% in Febr. 2001.	2001 and 95% by 31 December 2001.		95% in the month of July 2001, however at an average of 58.17% for Jan-July 2001, i.e. at 68% achievement of target. Collection rate for Aug. 01 to January 2002 was 80.33%, i.e. at 85% achievement.
Date achieved	02/28/2001	07/31/2001		07/31/2001
Comments (incl. % achievement)	The collection rate for FY 2003 to FY 2007 was at a 100% average, a 105% achievement of the target value.			

(b) Intermediate Outcome Indicator(s)

Indicator	Baseline Value	Original Target Values (from approval documents)	Formally Revised Target Values	Actual Value Achieved at Completion or Target Years
Indicator 1 :	Electricity connection			
Value (quantitative or Qualitative)	23,529	39,529		By December 2007 63,944 electricity connection
Date achieved	03/31/2001	07/31/2002		12/31/2007
Comments (incl. % achievement)				

G. Ratings of Project Performance in ISRs

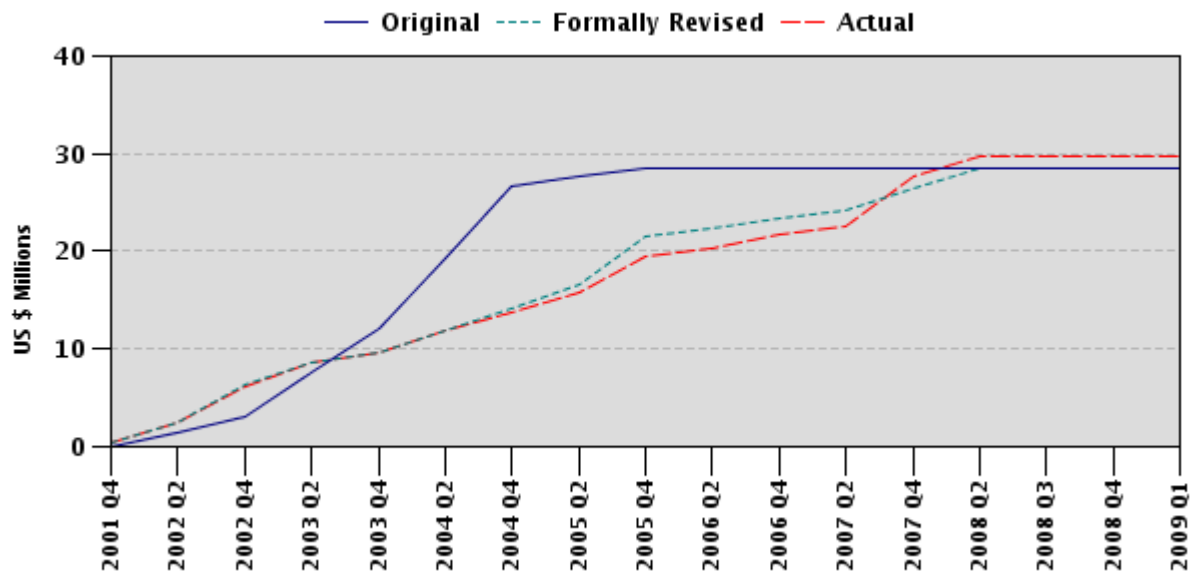
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	06/13/2001	Satisfactory	Satisfactory	0.00
2	06/28/2001	Satisfactory	Satisfactory	0.44
3	11/30/2001	Satisfactory	Satisfactory	2.06
4	04/30/2002	Satisfactory	Satisfactory	5.21
5	12/30/2002	Satisfactory	Satisfactory	8.50
6	05/28/2003	Satisfactory	Satisfactory	9.59
7	12/02/2003	Satisfactory	Satisfactory	11.34
8	05/23/2004	Satisfactory	Satisfactory	13.20
9	12/14/2004	Satisfactory	Satisfactory	15.39
10	06/23/2005	Satisfactory	Satisfactory	19.12

11	12/20/2005	Satisfactory	Satisfactory	20.35
12	06/16/2006	Satisfactory	Satisfactory	21.64
13	07/29/2006	Satisfactory	Satisfactory	21.90
14	12/18/2006	Satisfactory	Moderately Satisfactory	22.58
15	06/27/2007	Satisfactory	Satisfactory	27.66
16	12/20/2007	Satisfactory	Satisfactory	29.62

H. Restructuring (if any)

Not Applicable

I. Disbursement Profile



1. Project Context, Development Objectives and Design

(this section is descriptive, taken from other documents, e.g., PAD/ISR, not evaluative)

1.1 Context at Appraisal

(brief summary of country and sector background, rationale for Bank assistance)

1.1.1 Lesotho is a small landlocked, mountainous country and remains one of the poorest countries in the Southern Africa region. With a population of about 1.8 million, it is heavily dependent on South Africa and rides its neighbor's waves of economic development. It is also highly interdependent with South Africa in terms of its infrastructure and utilities. Despite the relatively good real growth performance averaging 3.8 percent over 1991-2006, reflecting the impact of substantial public South African and Basotho investment in the Lesotho Highland Water Project (LHWP), little if any progress has been made in its social indicators. Half of the population of Lesotho still remains below the poverty line; the Human Development Index declined from 0.57 in 1994-1995 to 0.49 in 2004 (2006 Human Development Report) and Lesotho has the third highest HIV prevalence rate in the world, after Swaziland and Botswana. Customs revenues from the South African Customs Union (SACU), the sale of water to South Africa, the garment sector, the latter representing 40 percent of GNP, and a declining reliance on remittances from miners and laborers employed in South Africa have played an important role in Lesotho's growth path over the past decade. Private sector activity is hampered by barriers of doing business and infrastructure constraints. Lesotho ranks 124 out of 178 in the Doing Business Report 2008.

1.1.2 The project addresses two key sectors, electricity and telecommunication, to improve service delivery and the business infrastructure for private sector development. Performance of the electricity and the telecommunication sector was both below regional average, characterized by high costs and low coverage, with an accessibility of less than five percent of the population. The Lesotho Electricity Corporation (LEC) founded in 1969 and vested with the right to undertake all tasks related to generation, transmission, distribution and supply of electricity, had degenerated from a viable company to a company in an abysmal state at project start. The billing system collapsed in late 1997, revenue collection was 18 months late; there were 1,200 backlog connections (connections for which clients had already paid connection fees); no accounts had been prepared for FY98, FY99 and FY2000¹ and accounting practices were weak; fiscal transfers to LEC to cover losses became untenable by end-1999²; and public institutions had overlapping mandates regarding regulatory, policy and operational functions. At the same time the Government had formulated in their Power Policy Letter from 2000 the

¹ A fixed assets register was not maintained; aging schedule of accounts receivable were not prepared; there were no procedure for bad debt write-off; stores were not physically verified.

² GoL assumed about US\$7.5 million of the outstanding debt of LEC to LHDA for bulk electricity purchase costs.

broad policy guidelines, in particular, the removal of the monopoly of transmission and distribution and the restructuring tariffs to cover operating costs and recover costs associated with investments.³ Approximately 75 percent of Lesotho's electricity demand is met by the 'Muela Hydro Power Plant (72 MWs) and about 25 percent by imports from South Africa. The 'Muela plant and associated transmission lines are owned by the Lesotho Highlands Development Authority (LHDA) and all of 'Muela's power is sold to LEC through a Power Sales Agreement (PSA). Industrial tariffs were cross-subsidizing domestic customer tariffs at the time of project start. LEC also is an Operating Member of the Southern African Power Pool (SAPP).

1.1.3 In contrast to the very immature state of reform in the power sector, in the telecom sector the Government had already embarked on a wide-ranging reform, following the adoption of the 1999 Telecommunication Policy. In 2000, the Telecommunications Act was enacted as well as the Lesotho Telecommunications Authority (LTA) established. In the same year, the Government sold a 70 percent stake of Lesotho Telecommunications Corporation (LTC) to a consortium consisting of Eskom Enterprises of South Africa, Mauritius Telecom and Econet Wireless International, and formed the new operator Telecom Lesotho (TL). TL was granted a 20-year license, which effectively started in February 2001, with a "five year exclusivity period for domestic basic voice and data services and leased line services." The exclusivity was further extended in its scope to also include the international gateway on basic voice and data. Under the terms of the privatization, TL was furthermore granted a mobile license for Econet-Ezi-Cel Lesotho (EECL), a wholly owned subsidiary of TL to compete in the mobile market with the first and only mobile operator, Vodacom Lesotho, licensed in 1996 with five years of exclusivity. EECL became operational in 2002.

1.1.4 The 1998 Country Assistance Strategy (CAS) for Lesotho foresaw a need to further address the limitations of the utilities (water, electricity, tele-communication) to deliver cost-effective and quality services and to contribute to overall competitiveness. The CAS saw the then ongoing Privatization and Private Sector Development Assistance Project (PPSDP) and a future supplemental credit as the vehicles to achieve this goal. The water sector was to be supported in a separate project planned for FY2000, the Water Sector Improvement Project Adaptable Program Loan (APL). Due to the rapid deterioration of the public enterprises in banking, telecommunications, the electricity and water sectors and the resulting increase in the fiscal burden the Government was prompted to give priority to the banks and major utilities.⁴ The PPSDP Project in its Mid Term Review MTR) in December 1997, was restructured to provide support to (i) the privatization of the Lesotho Telecommunication Corporation; (ii) the restructuring of the Water and Sewage Authority (WASA); (iii) the review and draft of a legal and regulatory framework promoting private participation in the water and electricity sector; and (iv) tariff studies in both sectors. This also explains the more advanced state of the telecom sector reform relative to the power sector reform, at project start.

³ See Project Appraisal Document (PAD), p. 17

⁴ See also GOL's March 23, 1998 letter outlining its future policy for the privatization program in conjunction with the Privatization Act No. 9.

1.1.5 Project preparation for a supplemental full-fledged Private Sector Development (PSD) project was suspended due to the 1998 political disturbances in Lesotho. It was subsequently decided that a new project was to focus solely on addressing constraints in the utilities sector which the private sector considered as a primary constraint to private sector development by that time. The Investment Climate Assessment (ICA) from 2007 reports that the poor quality of many infrastructure services remains a serious problem for enterprises in Lesotho. It also finds that power outages in Lesotho are accompanied with greater losses than in comparative countries because firms in Lesotho are less likely to have generators than those in other countries.⁵

1.2 Original Project Development Objectives (PDO) and Key Indicators (*as approved*)

1.2.1 The Lesotho Utilities Reform Project (LURP), that was co-financed with the African Development Bank (AfDB) (UA 6.5 million) and the European Union (US\$116,000), was designed to address a key constraint in the implementation of Government of Lesotho's ongoing private sector led development strategy. Specifically, it was to:

- *Improve business infrastructure such as electricity and telecommunication services, including provisions for internet connectivity in the future. The instruments chosen were:*
 - *privatization of the Lesotho Electricity Corporation (LEC) and consolidation of the Lesotho Telecommunications Corporation (LTC) privatization, and*
 - *introduction of a stable, transparent and modern utilities regulatory framework for both sectors.*
- *The reforms were expected to pave the way for private sector investment capital and management to help improving the coverage, efficiency, affordability and reliability of electricity and telecommunications services, thus releasing scarce Government resources to be redirected to priority activities such as social service delivery, and ensuring that the benefits of privatization are shared with the local population.*

1.2.2 The key performance indicators in the Project Appraisal Document (PAD) that were equally reflected in schedule 6 of the Development Credit Agreement (DCA) were:

- Complete the installation of 8,000 new connections by Interim Management Task Force (IMTF) no later than July 31, 2002.
- Define service territory to be connected by strategic investor according to timetable in the Project Implementation Plan (PIP).

⁵ World Bank, Lesotho, An Assessment of the Investment Climate, 2007, page 11

- Completion of LEC privatization no later than December 31, 2002, and consolidation of LTC privatization by the same date; achievement of one employee per 100 connections at LTC by December 31, 2004.
- Budgetary transfers to LEC reduced to zero, no later than December 31, 2002
- Establishment of electricity regulator no later than June 30, 2003.
- Establishment Unit Trust and warehousing facility no later than March 31, 2002; by June 30, 2003 at least 200 local investors should have invested under the said mechanism.
- Completion of Muela commercialization study in accordance with timetables set forth in the PIP, and implementation of recommendations also in accordance with the PIP.
- Successful completion of LEC streamlining program (as defined in Schedule 6 of the Development Credit Agreement (DCA)) by July 31, 2002.
- An additional 25,000 working telephone lines by December 31, 2002, and a further 15,000 new telephone lines by December 31, 2004.
- An additional 8,000 new electricity connections by July 31, 2002.

1.2.3 In addition Schedule 6 of the DCA specified the following additional indicators as:

- (a) By October 31, 2001 at least 40 percent of LEC employees earmarked for retrenchment have been actually retrenched; (b) by March 31, 2002 at least at additional 30 percent of the said employees have been retrenched; and (c) by July 31, 2002, the remaining 30 percent of the said employees have been retrenched.
- (a) By July 31, 2001, LEC shall have increased its rate of revenue collection to 85 percent of outstanding bills; and (b) by December 31, 2001, the said rate of revenue collection shall have been increased and thereafter maintained at 95 percent of outstanding bills.

1.3 Revised PDO (as approved by original approving authority) and Key Indicators, and reasons/justification

The project's overall PDOs and key indicators were not revised. The change in the privatization strategy in March 2003 led to an extension of the interim period in which the management contractor managed LEC's operations. Paragraph 8 of Schedule 6 of the DCA was amended in November 2004 in the first DCA amendment to read: "By July 31, 2002, LEC shall have connected 8,000 users to the electricity grid." to replace: "(a) By July 31, 2001, LEC shall have connected 2,000 users to the electricity grid; (b) by January 31, 2002, 3,000 additional users shall have been also connected to the electricity grid and c) by July 31, 2002, 3,000 additional users shall have been also connected to the electricity grid."

1.4 Main Beneficiaries

(original and revised, briefly describe the "primary target group" identified in the PAD and as captured in the PDO, as well as any other individuals and organizations expected to benefit from the project)

According to the PAD, the primary target groups were the utility consumers, employees of LEC, the private sector, including local and foreign investors, small and medium and micro enterprises and the Government of Lesotho. The beneficiaries of the consultancies, training, advisory services and goods and works were LEC, the LEC Board of Directors, the Lesotho Telecommunications Authority (LTA), the Lesotho Electricity Authority (LEA), the Ministry of Communications, Science and Technology (MOCST), the Ministry of Natural Resources (MNR), the Ministry of Finance and Development Planning, the Central Bank and Standard Chartered Bank as Trust Manager.

1.5 Original Components *(as approved)*

There were six project components⁶.

Component 1: LEC Divestiture and Electricity Expansion: This component was to focus on upgrading the electricity sector through the inflow of private capital, new technology and management necessary to increase access and improve the affordability and reliability of electricity services provided in the country. It comprised three sub-components: (i) Interim Management Task Force (IMTF); (ii) Sales Advisory Group (SAG); and (iii) LEC Staff Streamlining.

- **Interim Management Task Force:** This sub-component was to address the operational, managerial and financial problems then experienced by LEC. Technical assistance was to be provided by way of a performance-based management contract for 18 months by the IMFT that was to assume full responsibility for the day-to-day management of LEC until a strategic investor was in place. The IMTF was to support the LEC streamlining, including retrenchment and outsourcing of non-core activities to the private sector.
- **Sales Advisory Group (SAG):** The SAG was to be appointed to assist with defining a divestiture strategy for LEC and supporting the GOL until the sale of LEC to a qualified strategic partner was complete. SAG was to have the necessary expertise in the power sector, privatization, investment banking and international law.
- **LEC Staff Streamlining:** This sub-component was to include (i) retrenchment packages for affected LEC staff which would be funded out of LEC's revenues as

⁶ The components in the DCA are named differently. "Component 5: Advisory services and Capacity building" in the PAD does not figure in the DCA.

GOL counterpart contribution; (b) training and counseling of the retrenched employees that might be necessary in addition to the tasks undertaken by IMTF in the context of implementing the restructuring/downsizing program; (c) comprehensive monitoring and evaluation of the LEC downsizing program; and (d) a government communication program on the LEC restructuring process.

Component 2: Regulatory Reform: The component was to support activities to strengthen regulatory capacity and policy making capacity to enforce appropriate regulations in the utilities sectors, ensure fair and transparent treatment of sectoral operators and encourage new entrants, private investment and the transfer of technologies. The project was to finance the operations of, and a long-term resident advisor to LTA, short-term consultancies and training and study tours. For the Electricity Regulator, the project was to finance Technical Assistance (TA) to finalize the establishment of LEA, including an in-house long-term regulatory advisor, consultancy for key procedures to award licenses and concessions as well as in-house training and study tours.

Component 3: Future of Energy Sector in Lesotho: This component included two activities: (i) a study on hydro-electric power generation and its export; and (ii) electricity access pilots. The two-part study on the future options related to hydro-electric power generation and its export. The first part of the study was to specifically recommend options related to the commercialization of Muela, and the second part was to consider the potential for the development of additional hydropower resources for export. The Electricity Access Pilots were intended to assess the viability and modalities of providing electricity service to those areas that were not commercially viable and remained unserved following the transfer of LEC ownership from Government of Lesotho (GoL) to a private investor. Once the service territory had been determined, a series of pilot areas outside the service territory were to be identified in which to develop institutional mechanisms and management arrangements that were to allow for sustainable electricity service delivery, with the capital investment initially supported by International Development Agency (IDA) financing. Community-based private sector institutional arrangements (i.e. through local concessions) were to permit recovery of operating cost, maintenance and depreciation allowance. It was anticipated that approximately 3,000 new customers outside the service territory would be connected by low-cost technologies used to extend the grid, and separately, a total of up to 1,000 new customers spread over five isolated pilot communities were to be connected using stand-alone generation facilities. The project was also to develop private sector or income generating activities and rural telephone services in parallel with the access to electricity.

Component 4: Private Sector Development: The component was to establish an Investment Fund/Unit Trust, for which preparation had started under the previous Privatization/Restructuring project, Credit 2612-LS. The Unit Trust portfolio was based on: accessibility by Basotho to their savings at all times, competitiveness and manageable risks. Shares of companies with growth potential, including the shares of privatized utilities were to be put in a Privatization Trust Fund (a warehouse) until they became financially viable. Furthermore, technical assistance was to be provided to identify and support activities that would encourage regional integration efforts and identify Lesotho's

areas of comparative advantage, as well as identify and support income generating activities that could be associated with first-time access to electricity and telephone services, particularly in the electricity access pilot areas.

Component 5: Advisory Services and Capacity Building Assistance: Resources for advisory services and training of staff at the Ministries of Natural Resources (MNR), Communications and Finance and Development Planning were to be funded under this sub-component. Advisory services were to include a Technical Advisor to the Board of LEC, to assist with the supervision of IMTF; a Technical Advisor to the Ministry of Communications, Science and Technology (MOCST) on Policy Issues for Telecommunications; and a Legal Advisor to the Minister of Finance and Development Planning to assist in the formulation of a Competition Law and other institutional matters related to regional commerce. Capacity building was to meet training needs for the staff of the sector Ministries.

Component 6: Implementation: This component was to include contracts for key senior staff in the Privatization Unit (PU); legal, financial, audit and other consultancies that would be required by PU from time to time; limited public awareness costs and the operational costs of PU within an agreed framework. The African Development Bank (AfDB) was to finance training costs, office equipment and vehicles; an advisor to the Director, other officers, support personnel, and some public awareness costs. This component was also to finance the establishment of systems for financial management and reporting, and a long-term consultant to support the PU in its financial management.

1.6 Revised Components

1.6.1 Given the uncertainty of the privatization, the Interim Management Task Force (IMTF) for LEC was extended several times and transferred into a Management Contractor (MC) for an accumulated period of six years. Government had given short-term extensions to the MC that were originally planned for 18 months to continue the private sector management of LEC. These extensions were followed by three DCA amendments that affected Components 1, 3 and 6. The DCA amendment of 18 November 2004 retro-actively extended the Interim period for the management contractor for LEC by three years from 31 December, 2002 to 31 December, 2005. The second amendment of 22 December 2005 further extended the Interim period until 31 August 2006. Finally, the third and final amendment extended the Interim period to 31 December 2006.

1.6.2 The first amendment included the expansion of Component 3 to include expansion of access to telecom services in addition to access to electricity services. The amendment added training for the project implementation unit. Furthermore, the threshold for procurement of goods under national shopping was lifted from US\$30,000 to US\$75,000 per contract, and the aggregate amount lifted from US\$75,000 to US\$400,000 equivalent.

1.7 Other significant changes

(in design, scope and scale, implementation arrangements and schedule, and funding allocations)

1.7.1 The original concept remained the same throughout, but the project adapted to six changes:

- (i) The Government in agreement with the World Bank changed the privatization strategy in the beginning of 2003 from outright sale to a 20 year concession;
- (ii) Resources were re-allocated in November 2004 and in December 2005 to Component 1 to fund goods and works for further backlog electricity connections;
- (iii) The implementation period increased from four and a half to six and a half years;
- (iv) at mid-term review it was agreed that the private sector studies to be funded under Component 4 would be stopped and taken up under the new World Bank funded Competitiveness Project; it was also decided that the project would fund the National Electrification Master Plan (NEMP) instead of a future of hydropower study in Component 3;
- (vi) The scope of Component 3 was reduced to concentrate on only rural electrification while the income generation and rural telephone services in this component were not implemented; and
- (v) The Implementation Unit (Privatization Unit) was large and included the recruitment of a long-term international expert in financial management, as well as economists, lawyers and accountants.

1.7.2 The first project extension in December 2005 was justified with the extension of the interim period for the IMTF due to the delays in privatization, the ongoing process of finding a concessionaire, the implementation of rural electrification pilots and the establishment of a National Electrification Master plan (NEMP). The second extension in December 2006 was justified with LEC implementing an important Power Factor Correction and Meter Correction Program for 350 large energy users as well as the Phase III electrification project, a comprehensive legislative and regulatory review for the telecom sector and slow progress on the NEMP and the rural electrification projects.

2. Key Factors Affecting Implementation and Outcomes

2.1 Project Preparation, Design and Quality at Entry

(including whether lessons of earlier operations were taken into account, risks and their mitigations identified, and adequacy of participatory processes, as applicable)

2.1.1 The overall objective of improving LEC's operations, management and of attracting investment in the energy sector as well as quality services in electricity and telecommunication are well defined in the PAD. The project's focus on the utility sector, compared with the wide scope of its predecessor project, had been an outcome of discussions between the Government, the project team of the previous project and the International Monetary Fund (IMF), who was concerned about the large fiscal transfers to LEC after the utility's rapid deterioration (1997-1998) and had launched a nine months staff monitored program of financial and structural reforms (January – September 2000).

The new project was to control public transfers to LEC, to reform and restructure the electricity sector and was expected to positively impact private sector development.

2.1.2 After evaluating the spectrum of options for private participation in infrastructure for LEC during the project preparation phase, the instrument chosen was narrowly defined to the privatization of LEC. With this choice, that the World Bank supported, the Government of Lesotho hoped to maximize private capital flows and operational efficiency.⁷ The PAD could have introduced a wider spectrum of solutions for private participation in LEC that the new elected Government could have chosen from.

2.1.3 **Critical risks**, such as the resistance to privatization in parts of the population at the time of the first privatization project, were not taken into account by the project and Government teams when deciding for the narrow solution of an outright sale of LEC.⁸ The risk of “weak private sector response to sector liberalization and lack of foreign investor interest, in which case the sector cannot be privatized” were adequately identified, however its assessment as “modest” was too optimistic. The PDO or the mitigation measures for that specific risk did not include alternative options of private participation in LEC, such as concessions, management or performance contract. The risk of delays in the privatization process and of reversing efficiency gains in LEC because of uncertainty and high staff turn-over in LEC during the privatization process had not been included in the risk assessment. The risk of a well defined regulatory environment prior to privatization was rated also too optimistic, as the regulation in the electricity sector was only to be set up at project start and experienced a long delay. Risks from components to outputs were adequately assessed as moderate. The institutional set up was satisfactory with an active LEC Board and a constructive Advisor to the LEC Board monitoring and facilitating the activities of the IMTF/MC; and the Government handled the timely availability of counterpart funds well.

2.1.4 The water sector with its complex issues related to the sources of supply for water in the lowlands was to be dealt with in a separate project. Private Sector Studies in Component 4, Private Sector Development, however, did not fit under the focused project objective. The establishment of a Unit Trust was a carryover activity from the previous project; it was well prepared, and therefore its inclusion justified.

2.1.5 The governance structure of the project addressed the issue of coordination, another lesson from the previous project. The Privatization Unit (PU) that managed the previous project continued to serve as an implementation unit. Furthermore, several Committees were established to ensure a participatory process, as well as monitoring and financial management: a Steering Committee for the Restructuring of LEC, a Private Sector Advisory Committee with representatives for different parts of the country, a

⁷ To learn about privatization experiences prior to project appraisal, key sector players from Lesotho traveled to the Ivory Coast to evaluate its privatization experience, held workshops on privatization with all relevant stakeholders and considered several privatization options for LEC.

⁸ See World Bank, Implementation Completion Report ICR (IDA- 26120), Privatization/Restructuring, Report No 22175, 2001, page 15 ff

Financial Management Committee (FMC) and a Rural Electrification Working Group. In addition, communication to LEC staff, LEC customers and investors was to be an important element for the privatization process.⁹

2.1.6 The rural electrification component was not sufficiently prepared in terms of institutional set-up for implementation to take off. Only at the MTR in November 2003, it was decided to recruit a project manager and two engineers to staff the Rural Electrification Unit (REU), a new institution under the Department of Energy. At the same time, an implementation plan was developed. The design to combine rural services, including Information and Communication Technology (ICT) proved to be time consuming and was focused then only on electrification.

2.2 Implementation

(including any project changes/restructuring, mid-term review, Project at Risk status, and actions taken, as applicable)

In March 2003, the World Bank Management and the project team responded actively to the Government's request to change the privatization strategy, by discussing alternative options with the Government and agreeing to switch from an outright sale to a concession arrangement. At Mid-Term Review (MTR) in November 2003, the private sector studies (Component 4) were taken out and resources reallocated for electrification (Component 1). Resources allocated for a study on hydropower development were reassigned to the development of an Electrification Master plan. The achievement of development objectives and implementation performance (IP) were rated satisfactory throughout project implementation. Only in December 2006 was IP rated moderately satisfactory. The IP ratings could have been more realistic, especially at times when the project implementation came to a halt.

2.3 Monitoring and Evaluation (M&E) Design, Implementation and Utilization

2.3.1 The monitoring and evaluation system was uneven in its implementation across different components. This was due to the system not having been well defined at project appraisal or not having been further developed by the PU. Assuming the privatization would be completed by end of 2002, most indicators were linked to that date. Also, despite its mandate to evaluate project impact, the PU did not perform impact evaluations. The PAD specifically mandated impact evaluations for the training for retrenched LEC staff, the merger of the two regulators and the rural electrification pilots.

2.3.2 For Components 1 and 2, monitoring and evaluation was very well performed up to end of 2006. The LEC Restructuring Steering Committee (SC) and the LEC Board continuously monitored the performance of the IMTF and later the Management Contractor (MC) through monthly reports that were produced both by the MC and by the Technical Advisor to the LEC Board of Directors (BOD). These reports included a wide

⁹ See PAD, p. 13

range of important indicators that measured outputs (electrification connections, financial, commercial, and technical results) and processes (retrenchment, absenteeism). After the departure of the MC and the Advisor in December 2006, the LEC Management Team did not continue to provide reports to the PU. Documentation related to the various electrification contracts is dispersed amongst the LEC, the PU and the MNR and should ideally have been centralized in a proper filing system for ready access. Progress on telecom connections and other telecom sector indicators were published in LTA's annual reports.

2.4 Safeguard and Fiduciary Compliance

(focusing on issues and their resolution, as applicable)

2.4.1 Procurement: At MTR, the World Bank rated the procurement function satisfactory for all implementing agencies and raised consequently the procurement thresholds for national shopping of goods. IDA's procurement staff also requested the PU to prepare new procurement plans. Procurement issues were solved with the team, and only towards the end of the project, a procurement issue between implementing agencies and PU held up the development of a major study, the "Comprehensive Legislative Review of the Telecom Sector". Its purpose was among others to realign again the separation of regulatory and policy setting functions, some of which were collapsed in the 2006 Amendment to the Lesotho Electricity Act. The study, having been prepared with World Bank team's input is now being funded by the Government and the Regulator. Procurement staff supported the TTL virtually and undertook a limited number of implementation support missions. In the PU, the Finance Manager had taken on the procurement function and in coordination with the other implementing agencies, which also received training and technical advice, performed satisfactorily.

2.4.2 Financial Management: Financial Management staff at the MTR judged the project's and LEC's financial management as exceeding World Bank requirements. Annual project audits were submitted on time and were unqualified. At the time of submission of this Implementation Completion and Results Report (ICR), the audited project financial statements scheduled for September 30, 2008 are still pending and the World Bank has communicated this to the Government to ensure its submission in a timely fashion. LEC audits were also submitted on a regular basis, but the LEC Audit for FY07-08 also still outstanding.

2.4.3 Environmental safeguards studies for the project that was rated in the category B were undertaken at project appraisal. The MTR found that the Environmental Management Plan that had been developed as part of the initial Environmental Review in 2000 was largely complied with. The majority of the environmental impacts were found to be minor and occurred in the construction phase. A further environmental review was performed in 2004 for the electrification projects by the LEC and for the rural electrification projects. Environmental management reports as planned for in the PAD were not submitted on a regular basis.

2.5 Post-completion Operation/Next Phase

(including transition arrangement to post-completion operation of investments financed by present operation, Operation & Maintenance arrangements, sustaining reforms and institutional capacity, and next phase/follow-up operation, if applicable)

2.5.1 The Government recognizes that it is critical to maintain LEC's good financial and operational performance and develop the appropriate regulatory mechanisms. The Government has expressed its intention to establish a performance contract similar to the one supported by IDA in the water sector. Appropriate indicators would need to be established and could build on the indicators reported on by IMTF/MC (see 3.2. below). Linked to such a performance contract would be future tariff setting by the regulators, which will have to be based on best practices, i.e. by developing an economic, financial and regulatory model that includes variables such as cost of operation, maintenance and investments for each sector as well as parameters of social policies, including targeted subsidies. This tool will help to define the performance obligations for services providers and determine tariff levels. This is especially important in the current energy crisis with fluctuating electricity costs and investment needs and targets in generation, transmission and distribution. To develop cost-effective electrification projects to meet the target of 35 percent electrification by 2015, this model would also establish costs for electrification projects and would determine if and what level of subsidies is necessary for certain financially non viable projects.

2.5.2 Following a cabinet decision from September 2008 to establish LEA as electricity and water regulator, the Government is currently drafting an amendment to the LEA Act. It is planned that the authority would work in cooperation with the audit firm which is currently conducting performance audits of the water authority, and gradually develop its own capacity to audit the utilities. Under an envisaged performance contract for the electricity company, similar audits would also be performed for the electricity sector. The Government is working with the World Bank on a Private/Public Infrastructure Advisory Facility (PPIAF) proposal to develop an economic, financial and regulatory model. It would also be important for the Government to conduct an impact and cost modeling for the rural pilots to ensure that the lessons from this activity are captured for future activities of REU or LEC.

2.5.3 The Lesotho Unit Trust will continue. The PU, however, is being dissolved and its remaining functions will be absorbed into the Ministry of Finance and Development Planning. It is therefore important to ensure that copies of files of all major studies, surveys and project reports are kept in the Ministry of Finance and Development Planning. The Government is in discussions with the private sector and the African Development Bank to find a sustainable model for rural electrification.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

(to current country and global priorities, and Bank assistance strategy)

3.1.1 The objectives of addressing infrastructure constraints for private sector development and improving the financial and operating performance of these key utilities are still very relevant to the current country and global priorities. Especially in a time of energy shortage, such as the current one in Southern Africa, it is paramount that infrastructure enterprises operate in an efficient, adjustable and profitable way, serving their clients reliably, in a timely fashion with the least disruptions possible and expanding access.

3.1.2 The Poverty Reduction Strategy Paper (PRSP) of 2005 in its first pillar “Facilitating Employment and Income Generation through Economic Growth” identifies the provision of infrastructure, especially water, to industrial estates and provision of basic services to rural areas as key activities. The CAS 2006 in its second strategic objective is focusing on sustainable pro-poor growth and job creation with a sub-objective of exploitation of growth potential in the rural economy and improving infrastructure and access to basic services. The LURP project component “Future of the Energy Sector in Lesotho” with its rural electrification pilots contributes directly to this objective. The water project, the competitiveness project and International Finance Corporation’s (IFC) assistance to a Private Public Partnership (PPP) for a new hospital have been complementing the infrastructure dialogue under the LURP project. A large Millennium Challenge Corporation (MCC) program (US\$360 million) and an International Fund for Agriculture Development (IFAD) program (US\$10.7 million) for rural finance have started to fund supplemental activities as part of the private sector development agenda in Lesotho. The project also fits the broader infrastructure reform the World Bank is supporting in Lesotho.

3.2 Achievement of Project Development Objectives

(including brief discussion of causal linkages between outputs and outcomes, with details on outputs in Annex 2)

3.2.1 The following sections will primarily evaluate the contribution of the six components to the stated development objectives.

Component 1: LEC Divestiture and Electricity Expansion

3.2.2 **Overall this component is rated as moderately satisfactory.** The two reasons for the qualification of the otherwise positive development outcomes of this component are (i) the risk of the sustainability of the reforms in the absence of performance incentives (see subcomponent 1, and section 4.); (ii) the efficiency of the electrification projects; and (iii) the lack of investment capital. Private management during FY02 to FY07 improved LEC’s operational and financial performance significantly, due to innovations in management, technology and efficiency gains by the IMTF. Electricity

connections expanded at a rate around 6,218 connections per year between April 2001 and December 2007, compared to the target of 8,000 per year. Some electrification projects were implemented at a high cost. LEC's divestiture was not achieved during project implementation due to several reasons: (i) Small system and therefore limited interest in LEC; and (ii) lack of strong bids for a 20 year concession. Other forms of private participation in LEC were not further considered. After the departure of the Management Contractor in 2006, LEC is now being managed by individually hired managers and a Government appointed Managing Director. The new LEC team faces challenges to sustain the positive operational and financial performance, to raise capital for generation, distribution and transmission investments and to implement Government electrification policy cost-effectively and on time.

Sub-component 1: Interim Management Contract

3.2.3 This subcomponent is rated moderately satisfactory. The IMTF/Management Contractor (MC) implemented reforms in LEC which increased coverage, cost-effectiveness, efficiency and reliability in the electricity sector. Due to the delays and failure of LEC's privatization, a group of IMTF's managers stayed on as MC until the end of December 2006¹⁰, by which time the Government hired individual managers to lead the company. The rolling management contracts set certain operational, commercial, and financial targets, of which the company fulfilled on average of 76 percent.¹¹ Led by performance contracts, private management turned LEC into a profitable company with a good operational, commercial and financial performance: in two consecutive years, LEC made an average profit after taxes of M39 million in FY2006 and FY2007. Non-technical losses were reduced to 2.3 percent. The collection rate was at an average of 109 percent between FY2003 and FY2007. Revenues increased from 2002 to 2007 by 108 percent and LEC's good financial situation has allowed it to pay off its debts to Lesotho Highland Development Authority (LHDA).

3.2.4 In terms of coverage and efficiency, the IMTF/MC achieved a steady yearly increase in new electricity connections with LEC's customer base growing from 23,529 in March 2001 to 66,827 in March 2008, with a rate of 6,218 connections per year. Government's post-IMTF target was 8,000 connections per year. The electrification rate increased from 1 percent in 2001 to 16 percent at the end of FY2008. The pre-management contract backlog was cleared; however there is a new backlog as of March 2008 of 11,026 customers. IDA and AfDB funded approximately 11,715 new electricity connections in 5 districts, including Maseru; of which 1,072 the FY2008. LEC and the Government funded and installed about 28,643 new connections for the financial years 2001 to 2008. The introduction of a new billing system in 2002 and the exchange of

¹⁰ The Deputy Managing Director – Human Resources and the Deputy Managing Director – Engineering were removed from the MC and replaced with local managers in March 2003 and December 2005 respectively.

¹¹ Henry Paul Batchi Baldeh, Assignment Completion Report, Technical Advisor to the Board of Directors of Lesotho Electricity Corporation, July 2007

meters to prepaid meters contributed to an improvement in LEC's revenue base and a reduction in the number of meter readers and billing errors. LEC is now an almost fully pre-payment utility for domestic customers, a unique phenomenon in Africa and the world (with around 43 percent of total revenues in prepaid revenues in the past two financial years) for which customers expressed a high satisfaction rate.¹²

3.2.5 Net benefits from electrification were reported in terms of benefits for children's education, at the same time customer complained about long delays in getting connected. In terms of net monetary benefit, comparing the costs of alternative energy sources to costs after electrification, households were saving M16 per month. Households' assessments for the most widely appreciated benefits of electrification was for children doing homework at night, followed by entertainment, charging cell phones, refrigeration and cooking.¹³ The assessment that was based on around 400 households, showed, that the poorer the household, the more its members emphasized the need to give children light to do their homework. Customer services have improved with a Customer Guide Book circulated in 2004 and a public/customer sensitization program, which were positively recognized by 60 percent of those interviewed in 2004 for the poverty and social impact analysis of that year.¹⁴ At the same time, the interviewees complained that there were still months long delays in connecting households even after full payment was made to LEC. In March 2008 there was a backlog of 11,026.

3.2.6 IMTF/MC has achieved a steady decrease of total non-technical losses (revenue losses due to theft, bypassing of meters, fraud, etc.) each year (see table 1). Total losses were as low as 11 percent in 2007 compared to 34 percent in 2002; technical losses were at 8.7 percent in FY2006 compared to 16.75 percent in FY2003. As a comparison, Eskom in South Africa faces non-technical losses of 10 percent.¹⁵ LEC facilitated reductions in total global losses as well as reductions of incidences of tampering and illegal connections by installing 224 statistical meters at critical network points as well as through the meter mapping project. With a tariff increase and re-balancing plan that was implemented starting in 2004, as well as after a restructuring of the balance sheet, revenues increased by 208 percent from M79.9 million in 2001 to M246.3 in 2007. Electricity sales grew from M98.5 million in FY2001-02 to M221 million in FY2006-07. The peak demand grew from 83.35 MW in FY 01 to 89.93 MW in FY06. The system load factor grew during the same time from 41.69 to 58.91. The Power Factor Correction Program improved the efficiency in consumption patterns of about 350 industrial users resulting in reduced maximum demand through reduced power factors. The staff rationalization program coupled with the increase in customers has helped improve the ratio of customers per employee from 37 in 2001 to 108 in 2007. This compares well with other power operators in Southern Africa, where Swaziland Electricity Board has a ratio of 80 customers per employee while Eskom has 127.

¹² Lesotho: Poverty and social impact analysis of electricity sector reform, August 2004, p. 27

¹³ National Electrification Master Plan, Appendix 15, COWI, April 2007

¹⁴ Lesotho: Poverty and social impact analysis of electricity sector reform, August 2004, p. 27

¹⁵ Electricity Theft and Non-payment – Impact on the SA generation capacity crisis, Chris Yelland Ceng, in Energize Magazine, April 2008, www.eepublishers.co.za

3.2.7 Furthermore, IMTF collected about M32 million of the original contractual M51 million arrears by the end of July 2002. The backlog of audits was cleared and unqualified audit reports for FY 2000 onward were submitted on time. Manual systems were replaced with computerized systems. Internal controls and reporting systems were strengthened. Fixed assets were reevaluated and an accurate and up-to-date assets register is being maintained. Government transfers to LEC are funding specific electrification projects.

Table 1: Development of LEC indicators for FY 2001 to FY 2008¹⁶

FY/ Indicator	2001	2002	2003	2004	2005	2006	2007	2008
Electricity Sale in Million M	92.7	98.5	113.3	121.5	148.27	191.6	218	
Cost of sales in million M	54,9	61,9	74	65	70	78	79.8	
Customers ¹⁷	23,529	27,362	34,616	39,151	43,685	49,129	54,612	66,827
Additional connections ¹⁸		3,833	7,254	4,535	4,534	6,231	4,696	12,215
Average collection rate in percentage	19		99	120	115	114	99	
Average pre-tax profit (loss) in million M	(11.898)	(31.801)	(24.775)	(6.944)	(6.007)	38.3	60.3	
Total Losses in %		34	20	22	20	13	11	10
Staff	647	453	464	454	439	497	506	503
Payroll in Million M	30.68	30.7	33.6	34.6	42.4	45.74	50.4	

Source: Sadelec MC reports, LEC corporate indicator matrix, LEC Annual audited reports FY2004 to 2007, LEC audited accounts summary, Baldeh: Assignment Completion Report, Technical Advisor to the Board of LEC, July 2007, with updated data by LEC for FY2007

Sub-component 2: Sales Advisory Group

3.2.8 The sub-component is rated moderately satisfactory. The Sales Advisory Group (SAG) was to assist the Government in its strategy to sell LEC majority shareholding to a strategic investor, which was subsequently changed to a concession. With the arrival of a new Government in 2002, however the support for the outright sale of LEC dwindled. In March 2003, the Government, World Bank Management and the team held extensive technical discussions on different options that SAG had prepared in late 2002 on behalf of the Government. In March 2003, it was agreed to select a “Public Service Concession”, replacing the initial choice of outright sale. The concession was agreed to be the most appropriate way to meet Lesotho’s social and economic development targets in the sector as well as to still maintain reasonable control over the country’s strategic electricity assets. The scheme included (i) the transformation of LEC into a company and vesting of

¹⁶ Most indicators for FY 2008 are not yet available.

¹⁷ Start customers figure is different from MC reported start customer data base. For consistency the LEC corporate indicators data was used for all years.

¹⁸ MC monthly reports: March 2003, June 2006, and Baldeh: Assignment completion report.

all existing assets of LEC plus all transmission assets currently owned by LHDA in the new company; (ii) a wide dispersal of shares of LEC to local investors and employees; and (iii) monitoring of performance targets by the Electricity Regulator. The decision process to shift to a concession delayed the privatization significantly.

3.2.9 The bidding process for a concession started in May 2004, after the revised LEC privatization framework had been approved by Cabinet in February 2004¹⁹. Two bidders responded, one of which was Eskom with an alternative offer to manage LEC for a fee. This was rejected by SAG and the five members Evaluation Committee (EC). The EC evaluated the remaining bid as “generally compliant”; the Steering Committee (SC) however rejected the bid as non-compliant and asked to start a second process in July 2005. In the second round, two South African firms including one bidder from the first round submitted bids. The EC disqualified one of the bidders due to non-compliance with technical specifications. The other bid was carefully assessed and analyzed, and in February 2006 was declared non-compliant. The four most important reasons for this decision were: (i) the requirement for special treatment on depreciation; (ii) the need to raise financing; (iii) the assumption that the financing raised would have an interest rate of only 8 percent and; (iv) the requirement of NETGroup to be awarded contracts in its core competencies on a preferential basis. The bidding process was closed subsequently.

3.2.10 SAG was also responsible for paving the way to establish an Electricity Regulatory Authority (LEA), for which it prepared a range of detailed documents, including the legal and regulatory framework for the electricity sector. Furthermore, it prepared LEC for incorporation. LEA became operational in August 2004 and LEC was incorporated in December 2006. SAG’s intermediary products and its advice provided the technical basis for Government’s decision-making on LEC’s privatization and contributed to an effective regulatory environment in the electricity sector. SAG prepared LEC for privatization by various activities, including a market and economic analysis, a due diligence report on LEC, marketing to investors, and a report on privatization options, privatization schemes and the financial model.

Sub-component 3: LEC Staff Streamlining

3.2.11 This sub-component is rated moderately satisfactory. The Management Contractor (MC) assisted LEC to transition to a streamlined and more efficient enterprise. The smooth retrenchment process of 164 staff, which was lower than the targeted 224 staff (40 percent of staff) required to be retrenched per the PAD, was facilitated by compensation packages in 2002, that were Government sponsored. Several innovations in planning, process restructuring, IT and HR systems, internal controls, the financial and operational results in LEC improved significantly. However, staff turn-over was growing by 10 percent per year. Already starting in March 2003, MC managers were replaced with local managers (see Annex 2) and when the MC had left at the end of 2006 all managers were recruited locally during 2007.

¹⁹ See annex 10

Component 2: Regulatory Reform

3.2.12 This component is rated moderately satisfactory. The project supported and was instrumental in introducing a transparent and modern utilities regulatory framework in the electricity and telecom sector. Measures are ongoing to stabilize the regulatory system to reverse amendments to both the LEA Act and the LTA Acts in 2006 that negatively affected the independence and the separation of policy and regulatory functions of the respective regulators. Tariff setting tools are still lacking and tariffs especially for industrial users are high compared to benchmarks. Regulators have also delayed measures to increase coverage in both the electricity and telecom.

3.2.13 **Electricity Sector:** The Lesotho Electricity Authority (LEA) Act became effective in December 2002 and LEA was established in August 2004. Prior to its establishment, the project assisted in completing rules and regulation, operational procedures, the appointment of Board and the legal framework. LEA, however, only assumed full regulatory powers when the LEA Amendment Bill (December 2006) and certain sections of the LEA Act 2002 became operational.²⁰ In the 2006 Amendment articles 19 and 20 of the Act were changed with the result that, whilst funding for LEA was still through license fees and levies, the budget now has to be approved by the Minister and from a more independent to a more dependent Board in terms of its appointment and its reporting to the Minister instead of to Parliament.²¹

3.2.14 Sector reform was introduced through the New Energy Policy from June 2002 and the transitional tariff plan. The Energy Policy Framework for the Kingdom of Lesotho dated June 2002 introduced among other innovations in the sector (i) the removal of barriers to entry for entities to participate in the retail supply of electricity and for independent power producers; (ii) the principle of economic cost recovery of tariffs; as well as (iii) articulates a comprehensive strategy to expand electricity service access. Based on several tariff reviews undertaken 2002-2003, the Ministry of Natural Resources introduced a first transitional tariff increase plan starting in January 2004 with an increase of 18 percent for domestic and general purpose customers and a tariff rebalancing for major commercial and industrial customers. In January 2005 tariffs increased again by 18 percent for domestic customers, in January 2006 they increased by another 14 percent. For general purpose clients, tariff increases were 40 percent over two years. For commercial and industrial users, the cost of power includes both a fixed cost (maximum demand charge) and a marginal cost per KWh which increased in 2004 substantially by 84 Maloti per Kilowatt or by 270 percent. Table 2 shows the development of tariffs over

²⁰ LEA, Annual Report, FY 07. The LEA Act 2002 was drafted in a way that it assumed separation of transmission and distribution and allowed only exclusive licenses. LEA could subsequently not issue a license to LEC.

²¹ Tahal, Consultancy Services to Support Updating of the Institutional and Regulatory Framework for Water Supply and Sanitation Services, Draft Legal and Regulatory Framework Report, January 2008

the project duration. LEA considers industrial and commercial tariffs still to be at a too high level.

3.2.15 LEA has since managed and reviewed and made determination on two tariff increase applications from LEC. In March 2008 LEA approved a tariff increase of 8.7 percent on energy charges for all (High Voltage (HV) and Low Voltage (LV) industrial and commercial users, 12 percent for domestic users, rejecting LEC's requests for a 35 percent increase across the board. An application in 2007 for a 6 percent increase was also rejected. To determine LEC tariff increases, LEA undertook a cost of supply study in 2006. This study however did not take into account future investments costs.

Table 2: Transitional Tariff Plan and Tariff Increases between FY 2004 to FY 2009

Customer	Unit				Tariffs		
		1993-2003	2004	2005	2006-2007	2008	2009
Prepayment							
Domestic	l/kWh	0.31	0.366	0.43	0.49	0.49	0.57
General Purpose	l/kWh	0.48	0.566	0.68	0.68	0.68	0.68
Commercial							
LV	l/kWh	0.2677	0.166	0.082	0.082	0.064	0.0934
	M/kW/month M/kVA/month	49.31	87.5	133.3	133.30	124.0 ₂₂	134.75
HV	l/kWh	0.2677	0.155	0.074	0.074	0.074	0.085
	M/kW/month M/KV/month	43.42	86.5	132.6	132.60	123.6	123.3
Industrial							
LV	l/kWh	0.228	0.1	0.082	0.0819	0.082	0.0819
	M/kW/month M/kVA/month	43.42	87.1	133.3	133.3	124.0	134.75
HV	l/kWh	0.228	0.1	0.074	0.074	0.074	0.085
	M/kW/month M/kVA/month	38.63	82.6	132.6	132.6	123.3	123.3

Source: Tariff provisional plan and April 2008 increases provided by LEA 2008

3.2.16 LEA furthermore issues licenses, monitors LEC's performance and functions as mediator in customer complaints. In late 2006, it granted licenses to LEC and LHDA. It undertakes stakeholder outreach activities (field visits, radio and TV interviews and an interactive website). Though LEA is still to receive and review the final draft of the LEC customer complaint procedures it has been following-up customer complaints forwarded to it.

3.2.17 To make electricity more affordable, a new connection policy was introduced in October 2006, which intended to lower the barrier to entry for new customers. Customers were informed by radio and responded enthusiastically. The total connection

²² In July 2007 LEC changed from Kwh to KVA with a conversion rate of 0.93 (power factor).

fee for connections 50 meters from the existing network was set at M2,000 with an initial down-payment of M500 and the remaining balance paid in interest free installments over two years with the electricity bill (instead of seven years). In February 2008, the Minister of Natural Resources announced the connection policy anew to a new regime of a down-payment of only M50 and the remainder paid in installments through the electricity bill.

3.2.18 In the Telecom sector, the achievement of the development outcome is rated satisfactory. The development objectives were met with some delay in terms of connections and the customer per TL employee indicator. Project activities in support of LTA contributed to effective market regulation and liberalization and consequently to the sector's fast expansion, diversification and to increased competition. The sector's performance improved steadily between 2001 and 2007 as seen in table 3. Prior to the sector reform, including the privatization of Lesotho Telecom Corporation, Lesotho had approximately 14,000 fixed lines in 1999. In 2007 tele-density had reached 23 percent, with the share of mobile line tele-density having grown from 1.2 percent in 2001 to 20 percent in 2007. Fixed line tele-density grew very slowly from 1 percent in 2001 to 3 percent in 2007. The telecom sector contributed 2 percent of the GDP in 2005. By March 2005, the ratio of 1 employee per 100 customers in Lesotho Telecommunications and its full subsidiary EECL was achieved. A universal service fund is being considered to start in 2008. Internet subscribers grew more than tenfold between FY 2004 and FY 2007, but access is still limited to Maseru, and remains largely restricted to business users. The cost of twenty hours of Internet use amounts to US\$65, which corresponds to 130 percent of the GNI per capita. Overall, Lesotho still lags behind regional standards in terms of Internet connectivity and access to bandwidth, due mainly to the incomplete liberalization and reliance on TL as the main wholesale provider of bandwidth.

3.2.19 Most of the **growth** in the mobile sector is due to the operators' aggressive investment plans. The subscriber base of the telecommunications sector is dominated by pre-paid customers, a phenomenon that is more prominent for mobile services (96 percent) than for fixed (70 percent). Prepayment allows low and middle income users to use a mobile phone services with a lower monthly threshold and without fixed minimum monthly charges. Access to telecommunications services has also increased as a result of an increase in the number of payphones, telebureaus, Base Transceiver Stations (BTS) and additional fixed line connections. Tele-bureaus, run by small entrepreneurs, are spread throughout the country with a greater number in urban areas. The current tele-density figures still mask a major disparity in access between the capital district and low land areas of Western Lesotho and the mountainous areas of the country. For example, only 14 out of 147 BTS are located in mountainous regions of Mokhotlong and Thaba-Tseka. All major towns and population centers also in the mountain areas, however, receive mobile coverage.

3.2.20 LTA exercises its regulatory functions since its establishment per the Telecommunications Act 2000, by approving tariffs, issuing and monitoring licenses and monitoring frequencies and wireless networks. For example LTA received and decided on 12 tariff filings. LTA issued licenses for Internet Service Provider (ISP) (6), data communications (1), electronic messaging services (1), two-way radios (58), sound

broadcasting (10), radio amateurs (7), radio pagers (2) and tele-bureaus (3,255 by September 2007). In terms of license monitoring, LTA sanctioned TL with fines of about US\$1.24 million for not meeting expansion and quality targets agreed upon in return for its six years of exclusivity on international basic voice and data services.

3.2.21 Amendments to the LTA Act from July 2006 reducing some of LTA's independence are expected to be reversed in the new "Telecommunication Act" as a product of the comprehensive legislative review that is sponsored jointly by LTA and the Ministry of Communications.

Table 3: Telecom Sector performance for FY 2001 to FY 2008

	2001	2002	2003	2004	2005	2006	2007	2008
Tele-Density²³ (%)**	2,2	3.9	5.9	8.5	11.8	16	23 ²⁴	
Mobile Phones*	27,000	56,549	101,474	159,062	209,000	278,633	357,913	481,925
Fixed lines*,**	19,294	24,000	35,101	37,231	39,000	63,136 ²⁵	53,136	47,582
Public Payphones**				3,205	4,191	4,587	3,727	3,443
Tele- bureaus**	112	450	610	1,150	2,600	2,050	3,100	5,606
BTS**,***				101	113	121	134	147
Internet Subscribers				212	550	612	2,626	1,2616
Mobile tele- density*,**	1.2	2.6	4.4	6.9	8.9	12	20	26
Fixed tele- density*,**²⁶	0.9	1.1	1.5	1.6	1.7	3.5	3.0	3

Data sources are LTA Annual Reports financial year 2005 (ending March 2005) indicated by * and 2007 indicated by ** and additional information provided by LTA indicated by ***

3.2.22 LTA enjoys financial independence through its income of licenses fees²⁷, and with a view to further enhance sector growth, the World Bank had advised LTA on establishing transparent models for licensing and spectrum pricing, and on a cap of licensees' contribution to the level of full cost recovery of operating costs of LTA. LTA's capability to fulfill the above mentioned functions was supported by the project's

²³ Subscribers per 100 people

²⁴ This increase also has been caused by the current estimates that suggest a decline in the country's population.

²⁵ The sudden increase and decline of fixed lines is mainly caused by the introduction of the Lekomo Flexi customers. Lekomo Flexi customers were first counted as fixed line customer and switched then to mobiles lines customer. Lekomo Flexi is a prepaid GSM product that has a limited mobility and is BTS sector locked and SIM card locked as per LTA authorization.

²⁶ Differences with total tele-density in the first two years must be rounding mistakes.

²⁷ LTA collects 3.5 percent of operator's net operating income and a spectrum fee.

capacity building interventions in LTA and the Ministry of Communications, Science and Technology, through the recruitment of advisors, targeted training of key staff, financing the purchase and installation of frequency monitoring and management equipment, and financing of key studies (see Annex 2).

Component 3: Future of Energy Sector in Lesotho

3.2.23 The outcome of this component is rated moderately unsatisfactory. A study to define commercialization options for the Muela Hydropower plant was conducted. Its recommendations were included in the privatization scheme, but were not further followed up. The Muela Hydropower operates still within LHDA and is not run as a separate entity as recommended in the study. Resources for a study on the potential for hydropower development by independent power producers for export were reallocated to develop a comprehensive **National Electrification Master plan (NEMP)**. The NEMP prioritizes electrification projects over the next 15 years. According to the NEMP, to fulfill the electrification target (35 percent electrification rate by 2015 and 40 percent by 2020) LEC will be required to connect 12,000 new customers per year inside the service territory, for which investments are calculated at US\$64 million. Investments in distribution and transmission are calculated at US\$338.8 million. The NEMP also included a survey of 400 customers and evaluated their usage patterns and attempted to quantify the benefits of electrification (see section 3.2. Component 1, subcomponent 1).

3.2.24 The **Electricity Access Pilot Projects (EAPPs)** were managed by a newly established REU and resulted in around 700 connections in 10 villages in 4 locations. The REU as a new unit in the Department of Energy was established late 2003 after the MTR. The unit was to be staffed with a project manager and two engineers. The two engineers were hired in 2004 however; the project manager was only hired in September 2006. In 2004, staff of the Ministry of Natural Resources and the Ministry of Local Government reached out to the rural beneficiaries to consult them on rural electrification. Construction started finally in January 2007 and connected approximately 700 community institutions and households in remote rural villages with an average connection cost of US\$2,800.²⁸ The different methodologies used were: (a) connection to the grid in Qholaqhoe, (b) cross border grid connection in Dilli-Dilli/Sixondo, (c) diesel generator in Ha Sekake, and (d) mini-hydro in Semonkong. This fell short of expected connections of the 1,000 new customers with stand-alone generation.²⁹ All of the 10 target villages in four locations are community centers, i.e. hubs with primary and secondary schools, a post office, police services, grinding mills, community halls and local courts, which were all connected. Table 5 in Annex 2 summarizes the public or community institutions covered in each project location. The project had dropped the development of private sector or income generating activities and rural telephone services in parallel with the access to electricity.

²⁸ REU figures, 2008

²⁹ See section 1.5

3.2.25 The Lesotho Country Framework Study did not formulate any cost and subsidy study prior to the project implementation³⁰ nor did the REU implement any impact studies following the rural electrification, testing the assumptions that income generating activities, such as welding services, reduction of animal theft, irrigation and women starting their own income generation activities and cost savings due to travel time for buying alternative sources of energy could be observed. The project could not fund those due to the late start of this component. Field visits after electrification showed that wiring inside the houses or locations often still needed to take place to fully enjoy the benefit of electrification.

3.2.26 With a price per connection in the pilots of about US\$2,800, which includes only direct connection cost and no REU overhead costs, it is clear that rural electrification is not commercially viable. The connection fees of M500 for a 10 Amps connection, which can be upgraded to 60 Amps has been paid by some households, but in many instances the current operator is still collecting those fees. The maintenance and operation of two of the four schemes has been taken over by the private contractor who put in place the connections. The firm operates the schemes under a one year license that LEA granted on an exceptional basis. For a fixed fee, the operator also trains local site managers to take over the scheme after one year. The responsible operator in each location is an engineer who supervises an electrician and a clerk. Initial data collection shows that the revenues collected for energy consumption do not cover the maintenance costs and is therefore not sustainable.

Component 4: Private Sector Studies

3.2.27 This component is rated satisfactory due to the success of the Lesotho Unit Trust. The Lesotho Unit Trust (LUT) was established in August 2001 as a vehicle to broaden local participation in share ownership of privatized enterprises. Very small studies on potential industries were performed; at MTR it was decided that the private sector studies would be included in the preparation activities for the competitiveness project. The Lesotho Unit Trust (LUT) was established in August 2001 as a vehicle to broaden local participation in share ownership of privatized enterprises. The feasibility study for the warehouse facility was completed in early 2005 and Government decided not to establish it. The LUT has proved extremely popular with local investors. Eleven percent of the fund's portfolio in June 2007 was shares of privatized companies, which decreased in December 2007 to 6.2 percent. By 2003, 1,605 investors had already registered. By mid-2007, the Fund size had reached over M200 million (approximately US\$28 million), with some 2,445 investors, of which 12 are institutional investors, while the remaining investments are from the general public. The attached chart shows the distribution of client accounts, with 26 investors with accounts holding over M1,000,000, representing 66.2 percent of the fund value, 144 investors with accounts between M100, 000 and M1,000,000 representing 16.8 percent of fund value, and 1,706

³⁰ It was anticipated that the Lesotho Country Framework Study would formulate an action plan for deploying Output Based Aid (OBA) alongside the National Rural Electrification Fund (NREF) to promote rural electrification. See Technical supplement in Aide Memoire, March 2003.

investors with an investment between M2, 000 and M100,000, representing 16.7 percent of fund value and 69.8 percent of all accounts. The Unit Trust has yielded a tax free return of 20.55 percent over a 1 year period and 15.48 percent over a rolling three year period. The returns on investment continue to compare favorably with other investment products in Lesotho and South Africa, as was originally intended.

3.2.28 Very small private sector studies for the development of potential industries were performed; at MTR it was decided that the private sector studies would be included in the preparation activities for the World Bank Competitiveness Project. The feasibility study for the warehouse facility was completed in early 2005 and Government decided not to establish it.

Table 4: Lesotho Unit Trust (LUT) accounts

	No of accounts	Maluti	% total accounts	% Maluti
Less than M 500	130	28,155	5.3%	0.0%
Greater than M 500 less than M 2 000	439	501,782	18%	0.2%
Greater than M 2 000 less than M 100 000	1 706	33,564,050	69.8%	16.7%
Greater than M 100 000 less than M 1 000 000	144	33,736,512	5.9%	16.8%
Greater than M 1 000 000	26	133,034,539	1.1%	66.2%
Total	2,445	200,865,038	100.0%	100.0%

Source: Standard Charter Bank, Trust Manager, 2007

Component 5: Advisory Services and Capacity Building Assistance

3.2.29 This component is rated satisfactory. The project funded several advisors to critical beneficiaries' institutions to build the legal and institutional framework for each of the institutions: LEC Board of Directors, LTA, LEA, Ministry of Communications, Science and Technology (MOCST) and the Ministry of Finance. The Advisor to the LEC Board, housed in the Department of Energy (DOE) was working effectively with the LEC Board and was constructively supporting and monitoring operational, corporate restructuring and policy studies and issues. LEA built on synergies between SAG who advised on revisions of the LEA Act 2002 and the Advisor to LEA who supported the issuance of regulatory and legal framework for LEA to navigate the amendments through the political approval process. The LTA semi-residential advisor was released from his assignment due to non-performance.

3.2.30 Training was financed for managers and staff in LTA, the Board of LTA, the Ministry of Finance, the Central Bank and the Ministry of Natural Resources, especially the Department for Energy. The training for the Ministry of Natural Resources was mainly on regulatory issues, rural electrification study tours and benefited staff which is still in either LEC, BOD, LEA or the Ministry. Training for the Central Bank as regulator for the Unit Trust was very useful in building capacity in financial and capital

markets. The latter training was not foreseen in the DCA; however, its impact was important to future development activities. The training was a step to fill the role as capacity building partner under a US\$8.7 million program for Rural Financial Intermediation Program, funded by the International Fund for Agricultural Development. The Central Bank of Lesotho (CBL) will partner with the Department of Cooperatives to conduct surveys pertaining to financial institutions.

Component 6: Implementation

3.2.31 This component is rated moderately satisfactory. The project unit was to fund the salaries of key senior Privatization Unit staff, some of the operating costs and short-term consultancies to provide advice on specific issues. The project cost for the implementation was at 152 percent of appraisal estimates, or US\$4.26 million, also due to the delay of the privatization process and two project extensions. These costs were driven mostly by salaries for 13 professional staff. The PU performance was satisfactory however capacity building for local staff was not made an explicit part of the expatriate Finance Manager's assignment. The cost of the implementation was very high considering the additional consultancies and advisors, supporting the monitoring of important components, such as LEC. The responsibility for continuous monitoring and evaluation (see Schedule 4 in DCA) was not exercised in a way to allow for an impact, cost-benefit analysis or benchmarks of most project components. After the departure of the Director of the PU in September 2004, there were acting arrangements for the position of Director of the PU.

3.3 Efficiency

(Net Present Value/Economic Rate of Return, cost effectiveness, e.g., unit rate norms, least cost, and comparisons; and Financial Rate of Return)

3.3.1 The cost-effectiveness of electrification projects: LEC connected 40,361 customers between FY2002 (April 2001 and December 2007, of which 11,715 were donor-funded (by IDA and AfDB) for a total value of about US\$11.3 million. IMTF's first target to install 16,000 connections by 31 July 2002 was met to 72 percent³¹; the MC also did not meet the yearly 8,000 connection target set by the LEC Board post-IMTF that would have been also stipulated in the concession contract. The earlier donor funded electrification projects between 2001 and 2004 (8,500 connections) that cleared the backlog of 2001 were performed at a 95 percent completion rate (achieved connections versus connections targeted). Due to delays in the electrification phase II, the World Bank agreed at MTR to reallocate resources to clear a newly built up backlog of around 2,525 connections.

3.3.2 As part of the ICR preparation, a detailed review of Project electrification outputs (based on a sample of electrification contracts) was conducted during a separate

³¹ The performance contract had a high payment linked to the first 8,000 connections. The payment for the second 8,000 connections was much lower and therefore the incentive lower.

mission³² in order to obtain a clearer picture of the cost effectiveness of the investments made under the Project (please refer to Annex 11). This review included the infrastructure works contracted out under Component 1, Part 1C (Phase II) and Component 3 (but did not include contracts under Phase III for which documentation was not fully available at the time the ICR was finalized). Based on this review, it was noted that about 70 percent of the works were installed by the time the project closed. One of the main reasons attributed to non completion of the remaining works is the low uptake of the initial connections in addition to the late start of Component 3.

3.3.3 About 65 percent of the contracted number of consumer connections (for the sample contracts) was achieved by the time the Project closed. Although fewer consumers than was envisaged were connected, the supply network constructed has the capacity to supply an even higher number of consumers. Therefore only drop down service connections will be required when consumers apply for future connection.

3.3.4 The low initial uptake in the rural electrification pilots is attributed to the inability of households to pay the already subsidized connection fee of M500 (US\$70) and some of the houses not being ready to receive the connections (due to lack of internal wiring). The fact that most of the potential consumers could not afford to pay the required connection fee highlights the fact that a suitable model of rolling out rural electrification should be adopted by the Government of Lesotho. The connection fee seems to be a barrier to increased uptake and will need to be addressed to ensure sustainability of the rural electrification projects.

3.3.5 The unit costs for the sample of contracts reviewed under the ICR for the medium and low voltage networks are in most cases within range of the region³³ quoted unit prices (ref: Annex 11). The average cost per consumer is about US\$500 and US\$220 (*2006 prices*) for the 20A connection inclusive and exclusive of an energy meter and connection board respectively. In August 2001, the Government of Lesotho approved a connection fee policy where the connection fees for 20 and 60 Amps supply were around US\$267 and US\$470 respectively. About US\$70 and US\$267 would be paid for 20 and 60 Amps respectively, at the time of connection and the remainder over 7 years. Subsequently in 2006, the Government adopted a new connection fee policy with a connection fee of US\$267 for all connections less than 50 meters from the low voltage backbone reticulation network with an initial deposit of US\$70 to be paid at the time of connection and the balance to be paid over 2 years regardless of energy consumption.³⁴ The Government has acknowledged the need to review the current connection fee structure vis-à-vis the cost per consumer (especially in the context of the recent Ministerial announcement of a connection fee of only about US\$7 upfront payment for a

³² Mission on August 17-23, 2008 consisting of Ganesh Rasagam, Sr. PSD Specialist, Paul Baringanire, Power Engineer and Reynold Duncan, Lead Energy Specialist (from Pretoria) with support from Michaela Weber, PSD Specialist and Dileep Wagle, Lead PSD Specialist in HQ

³³ COWI, National Electrification Master Plan for Lesotho, Final Report October 2007

³⁴ COWI, National Electrification Master Plan for Lesotho, Final Report October 2007

all electricity connections) and is seeking World Bank assistance in this process to ensure financial sustainability of the electrification program.

3.3.6 The cost-effectiveness of setting up and building capacity for the two regulators (LTA and LEA) was satisfactory. Savings for common functions between the two regulators did not materialize. In September 2008, the Government approved legislation for the LEA's mandate to also include regulation of the water sector. The upcoming World Bank water sector improvement project and an envisaged PPIAF grant will support the regulator in its tariff setting and performance monitoring role. The establishment and operation of the Lesotho Unit Trust was cost-effective.

3.3.7 The financial performance for LEC was highly satisfactory: for example the gross operating margin³⁵ increased from 25.5 percent in FY2000 to 64 percent in FY2007, liquidity measured in accounts receivable went from M65 million in FY2000 to M34 million in FY07, equivalent of 11 months of sales to 51 days of sales; the interest coverage went from -11.88 in FY2000 to 184 in FY07.^{36 37 38}

3.4 Justification of Overall Outcome Rating

(combining relevance, achievement of PDOs, and efficiency)

Rating: Moderately satisfactory

3.4.1 The overall outcome rating is moderately satisfactory. The project was and is very relevant, and was designed with a forward looking vision. The rating for the achievement of development objectives of component 1, privatization (private management and private investment) and coverage, affordability and reliability in the electricity sector is rated moderately satisfactory. This rating is a composite of a highly satisfactory financial performance of LEC, a good operational performance and a substantial risk to the development objectives. The performance of the telecommunications sector (component 2) is rated satisfactory. Component 2, the introduction of a modern and transparent utility regulatory framework for both sectors is moderately satisfactory. Component 3, the future of the energy sector and rural electrification pilots is rated moderately unsatisfactory. Component 4, the private sector studies and the local shareholding financial mechanisms are rated satisfactory. Component 5, advisory services and capacity building assistance is rated moderately satisfactory. Component 6, implementation is rated moderately satisfactory.

³⁵ Gross operating margin = Sales minus cost of goods or services sold/sales

³⁶ LEC Audited Reports FY 2000, FY2003-2007

³⁷ The Government of Lesotho paid off all debts to LHDA for bulk electricity; it also does not charge LEC interest for the LURP credit

³⁸ As the LEC audited accounts for FY2008 are not yet available, its current financial performance could not be ascertained

3.5 Overarching Themes, Other Outcomes and Impacts

(if any, where not previously covered or to amplify discussion above)

(a) Poverty Impacts, Gender Aspects, and Social Development

3.5.1 The impact of electrification was measured in a survey administered under the COWI National Electrification Master plan. The main result of the survey was that the most widely perceived benefit of electrification was the use of electricity for children's homework, followed by entertainment, charging cell phones, refrigeration and cooking.³⁹ Comparing the costs of alternative energy sources to costs after electrification, households were saving M16 per month. The assessment that was based on around 400 households, showed, that the poorer the household, the more its members emphasized the need to give children light to do their homework. Another Bank funded draft impact study showed that customers complained about long delays in connecting households. The impact of telecom services was not measured.

(b) Institutional Change/Strengthening

(particularly with reference to impacts on longer-term capacity and institutional development)

3.5.2 LEC's capacity was strengthened with external capacity of five highly qualified international experts over more than four years. The gains achieved will have to be sustained by the new management team that was hired during 2007. It is expected that the current organization has to be complemented by continuous training and external skills to keep the current performance and to tackle the challenges to maintain the network, expand generation and investments in electrification. LEA and LTA are both self-sustainable. LTA is fully funded by license fees. LEA is funded by a budget determined by the Ministry of Natural Resources. The Privatization Unit is expected to be fully dismantled by the end of 2008.

(c) Other Unintended Outcomes and Impacts (positive or negative)

3.5.3 There were no unintended outcomes or impacts.

3.6 Summary of Findings of Beneficiary Survey and/or Stakeholder Workshops

(optional for Core ICR, required for ILI, details in annexes)

4. Assessment of Risk to Development Outcome

Rating: Substantial

4.1 While the LEC privatization as outright sale and under a concession failed, the sustainability of the significant achievements under the MC is best guaranteed by such a management contract or a performance contract (PC) modeled after the PC in the water sector, which is working well. After the failed concessioning of LEC, the World Bank advised the Government to run LEC by management contract. The Government however

³⁹ National Electrification Master Plan, Appendix 15, COWI, April 2007

decided against such a solution, and hired individual managers and appointed a Managing Director in 2007 instead.

4.2 The risks are:

- a) The inability to raise funds for capital investments for generation, transmission and distribution to maintain the network and fulfill on the 35 percent electrification rate by 2015;⁴⁰
- b) That successes achieved during the IMTF/MC could be reverted; and
- c) That LEC is vulnerable to political interference.

4.3 A big challenge is GOL's goal to achieve a 35 percent electrification rate by 2015 or 40 percent by 2020. The 2007 NEMP shows that to achieve this goal, LEC would have to make around 12,000 connections per year between 2005 and 2020. According to LEA figures LEC achieved 12,000 in FY2008.⁴¹ The risk however, that the connection fees can not cover the connection costs and the need for Government subsidies is substantial.

4.4 This risk is especially high on the background of a new proposed connection fee structure of M50 deposit with full payment including interest over time, and with a connection fee of M500 for the rural pilots. Furthermore, the lack of an overall institutional framework, such as an Electrification Fund and an operational Rural Electrification Unit, which are both under consideration, increases the risk level.⁴²

4.5 Reversals in the regulatory schemes such as in the telecom and the electricity sectors need to be monitored carefully. Delays in opening the telecom sector to competition and unleashing market forces, especially in international gateway and bandwidth provision will also translate into considerable delays in bringing lower cost connectivity to the individual and businesses. A sale of LEC shares for employees in line with greater Basotho participation in the benefits of privatization was not introduced and could negatively impact future attempts for private participation in LEC or other public institutions.⁴³

⁴⁰ According to the NEMP, LEC's investment program in transmission and distribution would amount to a total of US\$403.4 million

⁴¹ LEA: LEC performance in terms of connections in 2007/08 Financial Year, 2008

⁴² LURP Aide Mémoire, June 2007, p. 14

⁴³ LURP Aide Mémoire June 2007, p. 14

5. Assessment of Bank and Borrower Performance

(relating to design, implementation and outcome issues)

5.1 Bank Performance

(a) Bank Performance in Ensuring Quality at Entry

(i.e., performance through lending phase)

Rating: Moderately unsatisfactory

5.1.1 The performance of the Bank in the identification, preparation and appraisal stages of the project is rated moderately unsatisfactory⁴⁴. Building on the dialogue of the previous project, the identification of solutions for a non-performing LEC was narrowly chosen. During the previous privatization project the dialogue between IDA and the Government on utilities was constructive, the follow-up project did, however, not take into account the lesson that privatization was still widely resisted in Lesotho.⁴⁵ The policy and regulatory environment for the electricity sector was still in development and posed a risk for investors. For the integrated rural electrification sub-component project design and consensus with the Government was lacking and subsequently hindered a successful implementation throughout the project.

(b) Quality of Supervision

(including of fiduciary and safeguards policies)

Rating: Satisfactory

5.1.2 The overall rating for supervision is rated satisfactory. With a moderate turn-over of Task Team Leader (TTL's) – three over the course of the project life – the Bank maintained continuity in its policy advice. World Bank Management's and the team's approach was pro-active and flexible to address the concerns of the Government in a changing environment to find a workable solution to achieve project development objectives for LEC, which included turning the company around. The teams were equally active in resolving some regulatory issues and in emphasizing the importance of independent regulators. At several instances IDA supported the Government to overcome impasses for example in March 2003, when the privatization came to a halt, or in November 2004, in moving the LHDA-LEC power supply agreement forward.

5.1.3 IDA led approximately two missions per year. The MTR in November 2003 took place as a joint World Bank, African Development Bank mission. Most of the missions were staffed with technical experts from the power sector, regulation and/or telecommunication. The Task Team Leader and the team produced comprehensive and clear Aide Memoires, including indicators pertaining to coverage, technical efficiency

⁴⁴ See also section 2.1.

⁴⁵ World Bank, Implementation Completion Report, Privatization/Restructuring, Report No 22175, 2001, page 15 ff

and reliability. The Project Implementation Progress (IP) ratings in the internal Bank Implementation Status and Results Reports (ISR) were generally realistic but on hindsight could have better reflected the difficulties related to the dialogue on privatization policy and private participation in the LEC.

5.1.4 At MTR concerns about cost effectiveness in specific contracts were actively resolved; in regards to monitoring of LEC electrification projects, the missions relied considerably on the MC's supervision of contracts and achievements. It may be possible that the technical supervision efforts of the LEC and REU electrification activities were affected by the departure of the MC in late 2006. Financial Management (FMS) and Procurement performance was generally satisfactory except for one rating of MS and MU respectively in July 2006. In retrospect, the monitoring and evaluation arrangements for the Project could have been strengthened including provisions for data collection that would allow measurements of cost efficiency and benefits to the end consumers.

5.1.5 After the concessioning failed, the dialogue between the World Bank and the Government on private participation in the electricity sector was not effective. To support the project's sustainability, the missions advised the Government repeatedly to continue LEC's management under a management contract. The Government however decided to recruit individual managers into the LEC team and is now considering a performance contract, which would be enforceable through the regulator, LEA, with the water sector as a model.

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately satisfactory

5.1.6 The overall Bank performance was moderately satisfactory. The policy dialogue between the Government and World Bank Management as well as the project team, especially about the change of privatization strategy was timely and open. After the Government's decision to declare the bid for concession a failure, and the World Bank's advice to continue or re-bid for a management contract, the dialogue about private participation in LEC was ineffective.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

5.2.1 Government's performance is rated moderately satisfactory. The dialogue between the Ministry of Natural Resources, the Ministry of Finance, the Ministry of Communications, Science and Technology, the Regulators and the World Bank was continuous and frank in most instances. After the failed bid for concession, Government's commitment to find a concessionaire or to consider another form of private participation in LEC, i.e. a management contract decreased. Delays in establishing the LEA and the Rural Electrification unit were substantial. Changes in the regulatory regime affected regulatory independence and if not reversed, could negatively impact investor's confidence in the business environment. To ensure the principle of cost

recovery, tariff and fee setting techniques, such as use of financial and economic models, need to be introduced. LEA discussed such instruments during the ICR mission and recently asked the World Bank for its support in the development of such model. Counterpart funds were readily available.

(b) Implementing Agency or Agencies Performance

Rating: Moderately satisfactory

5.2.2 The performance of the PU is rated moderately satisfactory in the execution of the project. The coordination between PU and the large number of implementing agencies: Department of Energy, LEC, LEA, LTA and Central Bank, on fiduciary functions, such as financial management and communication were satisfactory. The change in the privatization strategy and dialogue with policy makers on specific regulations were not attributable to the implementing agency, however delayed execution of some of the components put in question the role of the PU. The monitoring and evaluation functions were moderately satisfactory for the majority of components. Progress reporting, including physical progress reporting by the implementing agencies was weak except for monitoring LEC performance, which was managed by a private firm with a contractual obligation to report on a regular basis. The cost of implementation support was relatively high compared to the estimated costs during Project design due primarily to the 2.5 year extension in the implementation period.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately satisfactory:

5.2.3 The overall rating for supervision is rated satisfactory. With a moderate turn-over of TTL's – three over the course of the project life – the Bank maintained continuity in its policy advice. Bank Management's and the team's approach was pro-active and flexible to address the concerns of the Government in a changing environment to find a workable solution to achieve project development objectives for LEC, which included turning the company around. The teams were equally active in resolving some regulatory issues and in emphasizing the importance of independent regulators. At several instances IDA supported the Government to overcome impasses for example in March 2003, when the privatization came to a halt, or in November 2004, in moving the LHDA-LEC power supply agreement forward.

5.2.4 IDA led approximately two missions per year. The MTR in November 2003 took place as a joint World Bank, African Development Bank mission. Most of the missions were staffed with technical experts from the power sector, regulation and/or telecommunication. The Task Team Leader and the team produced comprehensive and clear Aide Memoires, including indicators pertaining to coverage, technical efficiency and reliability. The Project Implementation Progress (IP) ratings in the internal Bank Implementation Status Reports (ISR) were generally realistic but on hindsight could have better reflected the difficulties related to the dialogue on privatization policy and private participation in the LEC.

5.2.5 At MTR concerns about cost effectiveness in specific contracts were actively resolved; in regards to monitoring of LEC electrification projects, the missions relied considerably on the MC's supervision of contracts and achievements. It may be possible that the supervision efforts of the LEC and REU electrification activities were affected by the departure of the MC in late 2006. FMS and Procurement performance was generally satisfactory except for one rating of MS and MU respectively in July 2006.

5.2.6 After the concessioning failed, the dialogue between the Bank and the Government on private participation in the electricity sector was not effective. To support the project's sustainability, the missions advised the Government repeatedly to continue LEC's management under a management contract. The Government however decided to recruit individual managers into the LEC team and is now considering a performance contract, which would be enforceable through the regulator, LEA, with the water sector as a model.

(c) Justification of Rating for Overall Bank Performance

Rating: Moderately satisfactory

5.2.7 The overall Bank performance was moderately satisfactory. The policy dialogue between the Government and World Bank Management as well as the project team, especially about the change of privatization strategy was timely and open. After the Government's decision to declare the bid for concession a failure, and the World Bank's advice to continue or re-bid for a management contract, the dialogue about private participation in LEC was ineffective.

5.2 Borrower Performance

(a) Government Performance

Rating: Moderately Satisfactory

5.2.1 Government's performance is rated moderately satisfactory. The dialogue between the Ministry of Natural Resources, the Ministry of Finance, the Ministry of Communications, Science and Technology, the Regulators and the World Bank was continuous and frank in most instances. After the failed bid for concession, Government's commitment to find a concessionaire or to consider another form of private participation in LEC, i.e. a management contract decreased. Delays in establishing the LEA and the Rural Electrification unit were substantial. Changes in the regulatory regime affected regulatory independence and if not reversed, could negatively impact investor's confidence in the business environment. To ensure the principle of cost recovery, tariff and fee setting techniques, such as use of financial and economic models, need to be introduced. LEA discussed such instruments during the ICR mission and recently asked the World Bank for its support in the development of such model. Counterpart funds were readily available.

(b) Implementing Agency or Agencies Performance

Rating: Moderately satisfactory

5.2.2 The performance of the PU is rated moderately satisfactory in the execution of the project. The coordination between PU and the large number of implementing agencies: Department of Energy, LEC, LEA, LTA and Central Bank, on fiduciary functions, such as financial management and communication were satisfactory. The change in the privatization strategy and dialogue with policy makers on specific regulations were not attributable to the implementing agency, however delayed execution of some of the components put in question the role of the PU. The monitoring and evaluation functions were moderately satisfactory for the majority of components. Progress reporting, including physical progress reporting by the implementing agencies was weak except for monitoring LEC performance, which was managed by a private firm with a contractual obligation to report on a regular basis. The cost of implementation support was relatively high compared to the estimated costs during Project design due to the 2.5 year extension in the implementation period.

(c) Justification of Rating for Overall Borrower Performance

Rating: Moderately satisfactory:

5.2.3 The overall performance of the Borrower is rated moderately satisfactory (see justification above).

6. Lessons Learned

(both project-specific and of wide general application)

- **Infrastructure Reform Program, Privatization and Regulatory Environment:** The World Bank's support for the privatization of LEC in the project design and during implementation support led to a failed attempt to concessioning of LEC and in the long-run to a positive outcome under a performance led contract. The privatization process in parallel with the introduction of a transparent regulatory regime took considerable time. However, it ultimately built strong ownership and a coalition of Government, regulator and private sector for ongoing reforms for LEC and TL's. The World Bank's and Government's support for a strong, independent regulatory regime for the telecom and the electricity sectors guaranteed good performance in both sectors, and paved the way for continuous improvement under a broader IDA infrastructure reform program in Lesotho.
- **Effective and Integrated Power Policy:** Private participation linked to performance monitoring in LEC has proven to generate positive results. To sustain the good results, it is essential that the operators work in a transparent regulatory environment and that an independent LEA and active LEC Board of Directors set realistic multi-year targets and monitors the utility's performance continuously. Furthermore, the commercialization of the Muela Hydro Power, the transfers of transmission assets to LEC/GOL, the realization of cross-border power projects and longer-term Power Sales Agreements with Eskom have to be given urgent attention.

- **Effective Tools to Regulate and set tariffs:** LEA is well equipped to regulate the power and it would need strengthening to regulate the water sector in the future the water sector in Lesotho. It would greatly benefit from a financial and economic model to establish reasonable operating costs, financing requirements for investments and tariffs that cover LEC's operating expenses, depreciation and the cost of capital.
- **Meeting Electrification Targets through Commercially Viable Electrification Projects and Transparent Subsidies:** To manage electrification projects cost-effectively and without major delays, proper planning, marketing and community consultation and communication efforts have to go hand in hand with supervision, monitoring and evaluation of projects.⁴⁶ It is important to structure commercially viable electrification projects, introduce cost benchmark and consistent connection fees, design performance or output based contracts and monitor achievement thoroughly using periodic external technical audits. Transparent, eventually output based subsidies for tariffs and connection costs for non-commercially viable projects would replace Government transfers to LEC targeted towards electrification projects. Such subsidy schemes would also replace proposals for very low connection fees with long payment period, which if approved, would put financial strains on the profitability of LEC.
- **Telecom sector connecting rural communities:** To keep the momentum in the telecom reform and to close the gap between the mountainous areas and the lowlands, targets for rural access to telecom should be established with the operators. The universal access fund should be established with clear set operators' charges and targets.
- **Establishing effective Rural Electrification Unit:** The slow uptake of electricity connections in the pilot areas showed that demand studies, i.e. willingness to pay studies as preparation for the pilots often do not reflect reality. More detailed planning techniques, including financial planning and calculation of subsidies will have to be developed. The late start of the rural pilots also prevented the project to perform impact evaluations that should still be performed. The next phase should include relevant skills for income generation and productive use of electricity. It would also be important that the Government clarified the future of the Rural Electrification Unit, the National Rural Electrification Fund (NREF), so that donor and private sector funds could be harnessed and leveraged.
- **Capacity building for lean and smart Project Implementation:** The project had a representative governance structure with the Steering Committee for LEC's restructuring, the Financial Management Committee and the Rural Electrification

⁴⁶ See lessons learned in LEC, Post Evaluation Report of Pitseng Electrification Project, 2008.

Working Group. In the case of the Rural Electrification Working Group its effectiveness had been lacking and therefore its structure and function is to be reviewed. The project should have been set up to allow for a slow build up of staff, as well as for the strategic use of external advisors to help with the set-up of financial management, procurement and monitoring systems with a clear goal to transferring know-how to local staff over time. This would have allowed for the empowerment of local staff to take over these functions after the start-up time with periodic external advice. Another lesson is that the project at appraisal could have made an assessment of PU staff needs to avoid overstaffing. The procurement function should be centralized in PU to avoid delays and ensure common standards.

- **Project Indicators and Impact Monitoring** should have been designed at project start, scheduled and continuously pursued. Data collection at ICR stage would have been less intensive. Impact studies for the training and programs accompanying retrenchment could have given the Borrower insights in planning for possible voluntary retrenchments in LEC and the advantages and disadvantages of outsourcing of non-core services. Impact assessments of the electrification projects as well as the telecom expansion could have provided important lessons for planning and prioritization in a roll-out plan for future electrification and telecom expansion activities by LEC and REU, especially in areas where service provision is financially not sustainable.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners

(a) Borrower/implementing agencies

Both in the comments to the draft ICR and in the conclusions of Government's Implementation Completion Report⁴⁷, five themes are important to mention:

- The Government suggests the coordination of missions between the World Bank and the African Development Bank. This is a very reasonable request that would ensure donor coordination as well as possible effective sharing of implementation support resources.
- Government states that it followed World Bank's advice to hire individual managers for LEC's management.⁴⁸ This is in contrast to the Aide Memoires from June 2007 and December 2006, which state clearly the World Bank's advice to bid for or continue the management contractor for LEC.
- The Government states that the cost-and-affordability-matching dilemma with high average connection costs, low take-up rates and low initial consumption rates requires now "proper planning and prioritization of projects". The World Bank

⁴⁷ Kingdom of Lesotho, Ministry of Finance and Development Planning, Implementation Completion Report for Lesotho Utilities Sector Reform Project – Short Version (IDA Credit No. 3484-LSO, AfDB No/F/LSO/PL/KE/2002/2, EU Grant No. 5002/LSO).

⁴⁸ Government of Lesotho's commented version of draft ICR, sent on 6/25/2008. .

concurr fully with that and is ready to work with the Government to develop effective planning and regulatory tools (see section 2.5).

- The Government mentions that the mid-process change to the format of the privatization was the main reason for protraction of the program. The World Bank supported the Government's request for such change of approach and fully supported the concession option chosen by the Government after its withdrawal from the option of outright sales.
- The Government of Lesotho appreciates the positive results of the Management Contract coupled with rigorous contract monitoring and expects the new management to continue such performance. The World Bank concurs with that and is ready to assist the Government with the introduction of a performance contract if so envisaged.

(b) Co financiers

(c) Other partners and stakeholders

(e.g. NGOs/private sector/civil society)

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in USD Million equivalent)

Components	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
1. LTC, LEC DIVESTITURE AND ELECTRICITY EXPANSION	19.60	21.5	109.69
2. REGULATORY REFORM	4.20	4.00	95.24
3. FUTURE OF ENERGY SECTOR IN LESOTHO	5.20	5.43	104.42
4. PRIVATE SECTOR DEVELOPMENT	2.00	0.44	22
5. ADVISORY SERVICES AND CAPACITY BUILDING ASSISTANCE	1.90	1.42	74.74
6. IMPLEMENTATION	2.80	4.26	152.14
7. PPF I	1.50	2.33	155.33
Total Baseline Cost	37.90	39.4	103.96
Physical Contingencies	0.30	0.00	0.00
Price Contingencies	1.20	0.00	0.00
Total Project Costs	39.40	39.4	100
Front-end fee PPF	0.00	0.00	
Front-end fee IBRD	0.00	0.00	
Total Financing Required	39.00		

(b) Financing

Source of Funds	Type of Co financing	Appraisal Estimate (USD millions)	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
African Development Bank		8.70	7.86	90.34
Borrower		0.00	1.74	
EC: European Commission		0.20	0.116	58.00
International Development Association (IDA)		28.60	29.8	104.20
Local Govts. (Prov., District, City) of Borrowing Country		2.00	0.00	

Annex 2. Outputs by Component

Component 1: LEC divestiture and Electricity Expansion

Sub-component 1: Interim Management Task Force

Performance contract

IMTF's contract was structured as a performance contract. Due to the postponement, and eventual failure, of the LEC privatization process, the contract was extended seven times from an initially envisaged 18 months to a total of 72 months. The contract had specific operational improvement targets, which were renegotiated in July/August 2001 due to slower than expected delivery. Targets for the first 18 months were the following: audits of backlog accounts of FY 2001/2002, collection rate of 95%, 9,600 new connections by July 2002, retrenchment, conversion of meters to pre-paid meters, decrease of operating costs (exclusive of purchase and personnel cost) by 5%, completion of the service territory study and the access to electricity study, the re-establishment of customer database and an additional 8,000 connections. The achievement of these targets, however not always proportionally, was linked to payments.

The SADELEC team consisted mainly of five international technical experts that were tasked to implement the targets with LEC's staff. Due to the seven extensions of SADELEC's contract - many of which were very short - the IMTF suffered from a high turnover. In March 2003, the Deputy Managing Director HR, and in December 2005, the Deputy Managing Director Engineering positions were filled with local managers. Despite the contract extensions, the Management Contractor's payments continued to be linked to operational and financial targets up to 2007. IMTF and the Management Contractor provided monthly reports on contractual and operational information to the SC, LEC Board Members, the World Bank and AfDB, which were monitoring its performance.

Operational performance of LEC⁴⁹

New connections and connection fee policy: The IMTF contract target was 8,000 new connections by July 2002 of which 5,014 (62.7 percent) were achieved: a total of 40,361 were made as at end of December 2007, with LEC financing 28,646 (i.e. 71 percent) of these with its own funds and customer deposits, and the remainder with IDA and AfDB funds. All original 2001 backlog customers have been connected. The number of connections per month was less than 50 before the IMTF, and a record 1,270 connections were made in December 2002, with an average of 6,218 per year. LEC did not achieve the Government's post-IMTF target of 8,000 connections per year even when financing was readily available. LEC's customer database increased from about 23,529

⁴⁹ The following data was sourced mainly from Henry Baldeh, Assignment Completion Report, Technical Advisor to the Board of LEC, July 2007. Updates were made with data provided by LEC, May 2008.

in March 2001 to 63,773 as of March 2008. All outstanding IMTF/MC backlog customers are currently being connected using GOL and LEC funds. In November 2006, for example, the Minister of Natural Resources inaugurated several projects financed by Government funds (totaling about M7 million). Contract and project management skills in LEC were identified to be not sufficient, which could have been mitigated by skills training and LEC's new organizational structure. An example is the slow implementation of Phase 2 Electrification (P2E) and the reduced number of connections under the Phase 3 Electrification Project.

Meter project, replacement and pre-payment revenues: Meter surveys were conducted in 2001 and 2005 to maintain accurate customer and meter databases. During the IMTF contract 2001 and 2002, 7,878 domestic and general-purpose credit meters were replaced with pre-payment meters. Pre-payment sales have increased from M1.3 million in February 2001 to a record of M10.83 million in August 2006. In financial years 2006 and 2007, prepayment revenue collection was at 45 percent and 41 percent of total revenue collected. With meter tampering being an endemic problem, LEC management responded by conducting extensive ad hoc inspections in high-risk areas. These areas have been identified in the analysis of the Statistical Metering Project.

Under the **Power Factor Correction Program**, the meters of all 350 major consumers were changed to modern programmable electronic maximum demand (credit) meters, and all installations have been inspected and upgraded. Meter reading using hand-held devices for all major customers commenced in June 2005, and has eliminated human errors and captures all relevant customer information for the past 24 months, thus improving LEC's customer and revenue management. The Power Factor Correction Program was embarked on as a way of promoting efficient utilization of energy by LEC's Large Power Users, which contribute about 55 percent of total revenue. This program enabled LEC to realize improved utilization of the network and hence defer investment. The program also facilitated migration to a kVa based billing system. The program had two phases: Phase 1 measured large power users' current power factors and determined the requirements to enable improvements to a power factor of 0.93 as minimum; and Phase II installed, tested, commissioned and handed-over the equipment to the customers on a turnkey basis. A new billing (and receipting) system (Aquilium, for commercial, industrial and a few "Special Purpose Domestic and General Purpose" customers) also replaced the corrupted Abakus system in 2002, but was planned to be replaced in 2007 due to persistent reporting and reconciliation problems.

Collection rates increased from 19 percent in January 2001 to 100 percent in March 2007. Since November 2002, collection rates have exceeded 100 percent except in six months. The latest MC contractual target was 95%. The collection rate over the last five financial years was 109 %, with an average M191 million of cash collected per year. It is significant to note that LEC has already made history by being one of very few, if not the only, almost fully pre-payment utilities for domestic customers in Africa (or even the globe), and should share the LEC experience with other interested utilities and stakeholders.

Arrears payments: The IMTF collected about M32 million of the original contractual M51 million arrears by the end of July 2002. The reported credit arrears (in the Aquilium billing system) were reduced from M12.7 million in July 2003 to M9 million in August 2004, but increased to M15.14 million in May 2006 (mainly due to tariff increases, LHDA debt of M2.07 million and inclusion of the current month's billing). Similarly, the amount owed by the top twenty debtors also decreased steadily between project start and FY2007; between FY 2007 and FY 2006 these debts were reduced by 24 percent to M4.00 million (March 2007).

Customer service: Seventeen 24-hours Automatic Vending Machines (AVMs) were installed in 2002 to increase customer access to LEC vending points and in 2005 eleven vending agents have been rolled out between 2005 and 2006. All customer service centers have online communications with LEC headquarters. A comprehensive Customer Guide Book and a Customer Complaints Policy, approved in December 2006, addresses customer information needs. Regular radio broadcasts inform customers about new developments. More customer education is needed regarding the different roles of LEA, LEC, the Ombudsman and the Judiciary.

Total losses: A high of 34.5 percent of total losses was reported in FY 2002 and the average total loss of FY 2006/07 was 11 percent. Unavoidable technical losses were estimated at 8 percent. Contributing factors to this reduction of total losses are: (i) the installation of 224 statistical meters at critical network points; (ii) the customer mapping project in the Maseru area in August 2006; and, (iii) the power factor correction and meter audit program for about 350 major LEC customers. Several network-strengthening projects were implemented. Digitized network maps were prepared in 2003/2004 to replace old and inaccurate manual maps and have since been used to facilitate network design and analysis and implementation of annual maintenance plans, which still need further improvement.

Human Resources Management: Corporate needs had to be matched with incentives for local staff to achieve the MC targets. Encouraging results were achieved under the Annual Incentive Bonus Scheme and the Performance Management System since 2001. A Succession Plan Report intended to identify local staff with senior management potential was introduced in 2003. However, in the absence of a strategic advisor, LEC BOD's recommendation to GoL in 2007 was to source the scarce skills competitively from the private sector.

Sub-component 2: Strategic Advisory Group

SAG, appointed in December 2001 to complete the sale of LEC's majority shareholding to a strategic investor within 13 months, faced a change of privatization strategy at the end of 2002. In May 2002 SAG prepared a draft privatization scheme based on an outright sale of LEC assets in accordance with GOL's Power Sector Policy of October 2000. After an election, the new Government did not want to pursue the LEC sale further. The Policy imperative for the Government was to expand access to electricity, while at the same time attracting a competent strategic investor who can

improve the overall efficiency of the LEC and maximize future investments.⁵⁰ The Bank agreed to this shift in several technical discussions about options at the end of 2002 and beginning of 2003. Subsequently, SAG prepared in March 2003 a revised LEC privatization framework which was subsequently approved by Cabinet in February 2004. This shift in strategy introduced some significant delays.

SAG's products and services provided the technical basis for Government's decision making on LEC's privatization, contributed to LEC's turnaround as an enterprise and created a basis for an effective regulatory environment. Preparatory work for LEC's privatization included a market and economic analysis, a due diligence report on LEC, marketing to investors, a report on privatization options and their economic and financial evaluation, two privatization schemes, the financial model, a data room, several privatization options reports as well as the updates of the data room in 2004. SAG was also responsible for the preparatory steps of the establishment of the Electricity Regulatory Agency (LEA) for which it prepared its legal and regulatory framework and a range of detailed documents: legislation, licenses and grants under powers, technical codes and standards and for LEA procedures, and rules and regulations. SAG also reviewed the Muela options report in 2002, recommended consumer tariffs increases and drafted the LHDA-LEC Power Supply Agreement. Additionally, SAG advised on the LEC Balance Sheet restructuring.

Two tender processes starting in March 2004 ended with bid failure in February 2006. The first round started with a regional advertisement, the receipt of nine expressions of interest in May 2004 and the invitation to submit bids to a short-list of five firms in October 2004. Eskom, which had asked for bid extensions of a total of four months did not submit a formal bid, put forward an alternative offer to manage LEC for a fee. The Evaluation Committee rejected Eskom's offer as non-compliant. The Evaluation Committee then evaluated the bid by NETGroup Solutions (Pty) Limited, acting as the lead for a consortium of another South African and a Basotho firm, as "generally compliant"; the Steering Committee however rejected the bid in April 2005 for different issues, in particular for NETGroup's statement, that it still needed to raise funds and its request for major concessions in company tax rates. The SC asked SAG for an option paper.

SAG's recommendation in an option report after the first round of the tender process in July 2005 was a long-term (say five year) management contract with a significant performance related element to its fees. In the same paper the SAG concluded that the Government had to make four key decisions to determine the way forward: (a) reconfirm its objectives for the power sector; (b) reaffirm its policy to continue to seek private sector involvement; (c) determine whether to continue to seek private sector investment through a long term solution or to refocus efforts on public sector; (d) decide whether to negotiate or invite competitive bids for management contractors to run LEC.

⁵⁰ Aide memoire, March 2003. p. 1

The Government decided to proceed with a second round of bids after confirming continued interest by the short-listed firms.

In the second round the EC evaluated two bids and considered a bid by Southern Electricity Company South Africa (Pty) Ltd. (SELCO) as non-compliant, due to their proposal to connect 5,000 customers per year with batteries while connecting a further 3,000 to the grid. While evaluating NETGroup's bid which was similar to its first, the EC initiated a trip to Tanzania, where the EC reviewed NETGroup's performance managing Tanesco, Tanzania's Electricity Company. In conjunction with the findings of the Tanzania trip, the EC rejected NETGroup's bid on February 2006. The four most important reasons for this decision were (i) the requirement for special treatment on depreciation, (ii) the need to raise financing, (iii) the assumption that the financing raised would have an interest rate of only 8 percent, (iv) the requirement of NETGroup to be awarded contracts in its core competencies on a preferential basis.

After the failure of the second round, in February 2006, SAG in its final report recommended the appointments of LEC Board members with appropriate experience and independence, a high level of autonomy for the LEC Board to set electrification and financial targets, provision of adequate budget to ensure LEC could appoint a skilled and experienced chief executive and senior management team to replace the management contractor, the appropriate freedom for the regulator to interface with customers, licensing and tariff decisions and to make subsidies to electricity customers transparent through direct payments.

LEC was transformed from a corporation into a company incorporated under the Companies Act. The LEC (Pty) Ltd (Establishment and Vesting) Act was passed in January 2006 and the commencement notice and the vesting notice were issued on 1 December 2006 and 19 December 2006, respectively. The main objective of the Act was to facilitate for the incorporation of the Lesotho Electricity Company and to provide for the transfer of rights and obligations, and vesting of the assets of LEC to the Lesotho Electricity Company. LEC (Pty) Ltd was subsequently issued a license by the LEA under the new regulatory framework.

Sub-component 3: LEC Staff Streamlining

The IMTF initiated the first enterprise wide restructuring in 2001, during which 164 out of 200 planned staff were retrenched and more skilled staff were recruited. The PAD had estimated 40 percent of total staff, i.e. 259, to be retrenched. The retrenched staff received compensation packages without any strikes occurring. Staff numbers declined from 647 in 2001, to 464 in 2003, 439 in 2005, but increased again to 506 in 2007. Salaries increased from M30.68 million in FY2001/2002 to M45.74 million in FY 2005/2006 due to a review of salary structure, recruitment of several professionals, annual cost of living adjustments and the reestablishment of a provident fund in August 2004. The first restructuring included upgrading of IT systems, training, new grading structures, performance based management and a bonus system. A subsequent

restructuring plan was sent to the LEC Board for approval in 2005 taking into account the lessons from the first restructuring, and included several initiatives, such as the manager grading system that had to be corrected. At the end of January 2007, the LEC Board had only approved the revised organizational structure and grading matrix. The approval of the remuneration policy and implementation of the restructuring plan is still outstanding.

The uncertainty regarding LEC's divestiture and the limited competitiveness of LEC's compensation package caused a number of senior staff to resign. This turnover, growing 10 percent per year, and the loss of institutional memory within LEC management may negatively impact LEC in the short and medium-term. For example, during the year 2006, 17 employees left LEC including some key staff from the Engineering, Finance and the Commercial Departments. LEC is currently being managed by a team of competitively recruited managers, with a Managing Director from outside the sector appointed by Government, and the Commercial Director having been part of the second Management Contractor team.

Component 2: Regulatory Reforms

Electricity Sector: Prior to its full functionality, the LEA had completed several important tasks, including the following: (i) appointing its Board and CEO appointment by the Minister of Natural Resources; (ii) developing a vast array of rules and regulations for the establishment of an adequate legal and institutional framework in the electricity sector; (iii) establishing operational procedures for its functioning; (iv) developing and approving – through its Board – its business plan; (v) hiring its staff and (vi) establishing its offices and procuring office equipment and vehicles. This was further complemented with the approval and commencement of the LEA Amendment Bill by the National Assembly (December 2006).

LEA CEO's salary was initially project supported. In addition, a resident Technical Advisor to LEA was hired in June 2003 under a two-year contract and pending LEA establishment he was based in the PU. In particular, the Advisor was actively involved in the preparation of regulations and rules to supplement the LEA Act and an LEA (Amendment) Bill, which was carried out under the SAG contract. He also assisted in finalizing the key procedures for the Regulator to award licenses to the private sector, and in providing an in-house training program for the staff of LEA. Following completion of the Advisor's two-year contract, the LEA contracted his services on a part time basis for the period up to December 2005.

Telecom sector: The project built capacity of LTA and the Ministry of Communications, Science and Technology through the recruitment of advisors, targeted training of key staff, financing the purchase and installation of frequency monitoring and management equipment and funding of key studies.

Efforts to link the rural population to telecommunications services were made through the investments in rural telephony by mobile network extension, BTS and/or payphones, and tele-bureaus. BTS have been installed mainly in the Central, Northern

and Southern regions in the districts of Butha Buthe, Maseru, Mafeteng, Mohale's Hoek, Berea and Leribe. Fourteen (14) out of 147 were installed in the mountainous region of Mokhotlong and Thaba-Tseka. LTA has also been working with EECL and VCL to develop system expansion plans since February 2003, as a basis for suspending a universal service charge. The universal service fund (USF) including contributions from network operators was suspended and is to be established in 2008.

Internet access: There are currently six Internet Service Providers (ISPs) that provide services to the public and lease capacity from Telecom Lesotho through a link to SAIX in South Africa. It is worth noting that LTA licensed Bethlehem Technologies Limited (BTL) to provide international bandwidth via satellite. BTL delayed commencement of its operations due to, *inter-alia*, a litigation instituted against it by TL over alleged BTL's licence infringement on TL's exclusivity rights. The case was recently withdrawn by TL. Since 2006, BTL has connected one ISP directly to its international gateway.

The Frequency Monitoring and Management Equipment, which the project funded, is a useful tool in the critical function of radio spectrum management which falls within the mandate of the LTA, i.e. identifying illegal users of radio equipment and spectrum. In November 2005, the LTA also acquired a Global System for Mobile Communications (GSM) Interface Test Tool. The GSM Interface Test Tool is helping the operators in their network development planning and optimization (including digital broadcasting), minimizing spillage from Lesotho into South Africa and improving network performance and quality of services.

The "Demand of Telecommunications study" in 2004 determined the level of demand for telecom services, demarcating commercially viable and non-viable areas, and also provided guidance for future coverage under the Universal Service Fund. Network operators used this data extensively in their roll-out of services. The "Interconnections and Tariff Rationalization" consultancy undertaken jointly with the Commonwealth Telecommunications Organization (CTO) and consulting firms, established the interconnection rates that LTA approved with effect of July 2007.

In view of the post-exclusivity period and the convergence of technologies characterized by the transmission of different services such as voice, data and video over a single platform, LTA issued the "Communications Sector Liberalization Framework", which was adopted in January 2007. Subsequently LTA, in cooperation with the Ministry of Communications, engaged a consulting firm to review and revise the policy and legal framework, so as to bring Lesotho in line with international best practices. This study is reviewing the licensing framework as well as the separation of policy, regulatory and operational functions roles. The Bank, which was planning to finance the study, was keen that this review should also reverse the amendment of July 2006 to the Lesotho Telecommunications Authority Act 2000 that has weakened the independence of LTA. The Bank had advised that the regulatory functions that the Minister of Communications now holds as a result of the 2006 amendment – which he never exercised - should be transferred back to LTA.

Component 3: Future of Electricity Sector

Rural Electrification

The REU was established in the Department of Energy (DOE) in May 2004, to implement the pilots and to manage the development of the National Electrification Master Plan (NEMP). The project manager for REU was only hired in September 2006 and resigned after one year before the end of his contract. Two locally recruited Project Engineers were recruited in June 2004, with one of them remaining in the unit. Construction of networks effectively started in January 2007. The Rural Electrification Working Group was accompanying the process and advising the Department of Energy on the implementation of the pilots.

Based on an “Access to Electricity Study” from 2001 and on Government’s decision to test certain methodologies and technologies, the Government identified five pilot areas outside the service territory. As a first step, villages had been sensitized with the involvement of the Ministry of Local Government. Then short demand and energy consumption surveys were undertaken in 11 villages to determine willingness to pay. The criteria for the final selection were that the villages had to qualify as Services Centers, defined as areas that serve several villages for shopping, grinding, postal, police and local judicial services and transportation to district cities. Table 5 summarizes the institutions covered in each project location. In each of the four locations community centers/halls, several primary schools, high schools, supermarkets and churches and other community service centers were connected.

The pilots tested several methodologies and technologies to connect remote rural households and community centers. The different methodologies used were: (a) connection to the grid in Qholaqhoe, (b) cross border grid connection in Dilli-Dilli/Sixondo, (c) a diesel generator in Ha Sekake, (d) solar energy in Linakaneng, and (e) a mini-hydro in Semonkong. The new technology tested were Single Wire Earth Return (SWER) as a means to supplying bulk electricity from a 33 kV transmission line to a section of the village of Qholaqhoe. The solar project is being funded by GEF/UDNP and was taken out of the rural electrification component.

It is expected that welding services, reduction of animal theft, irrigation and women starting their own income generation activities such as sewing could be direct outcome of this pilot electrification. Indirect benefits of the electrification could also be environmental benefits of reduced use of paraffin, batteries, wood, candles, gas and coal, as well as more frequent use of cell phones. Impact studies financed under the project were not possible due to the late start of this component. Field visits showed that locations that have been connected still need wiring to take place to fully take advantage of the benefit of the electrification pilots.

The maintenance and operation of three of the four schemes has been taken over by the contractor who put the connections in place, under a one year license that LEA

granted on an exceptional basis. For a fixed fee, he also trains the local site manager to take over the scheme after a year. The responsible operator in each location is an engineer who supervises an electrician and a clerk. Project managers consider the handing over of these projects to the Ministry of Local Government only in the long-term. Government and donors thus have to introduce an approach that maximizes output per public resources, especially lacking donor funding. An output based approach would be one mechanism to consider.

Table 5: Community Hubs and their electrification

Village	Connections	Institutions Covered
Semonkong	83	Community council office, Police post, Bank, Central bus stop lighting, 2x Hotels, Agricultural Center, 2x Primary School, 2 Super markets & 5 shops, Sewing Centre, Air Strip, 3 Churches.
Qholaqhoe	201	Vocational School, High School, 5 Primary Schools, Police Post, Local Court, Community hall, Community council office, Agricultural Center, 4 Churches, Police post, Agricultural Center, 1x Super markets & 3 shops.
Ha Sekake	239	Appropriate Technology Services (ATS) Community council office, Police post, Bank, Central bus stop lighting, Agricultural Center with accommodation facilities, Rental houses, high School, 3x Primary School, 3 Super markets & 5 shops, Sewing Centre, Air Strip, Clinic, Meal-meal grinding, Sheep shedding, 3 Churches.
Linakaneng	Not yet done	Clinic, Community council office, 3 Churches, Primary School.
Dilli-Dilli/Sixondo	233	Community council office, Police post, Bank, Central bus stop lighting, 5x Primary School, 5 shops, Sewing Centre, 2x Churches.

Component 4: Private Sector Studies

The Lesotho Unit Trust (LUT) was operated by a Management company, for which the project provided set up and running costs for the first two years. LUT is not liable for income tax and all other taxes falling broadly within the Income Tax Act for a period of five years from commencement of the unit trust operations. Initially, the fund was mandated to invest thirty percent of its portfolio in privatized companies. As this was difficult to maintain, LUT had asked for a moratorium which resulted in the percentage being reduced to fifteen percentage. As the fund grew further, the fund was capped in 2004 and still remains capped.

Component 5: Advisory services and Capacity Building Assistance

Advisory services included: (i) a Technical Advisor to the LEC Board and the DOE to assist with the supervision of the IMTF and advise on the SAG assignment issues; (ii) a Technical Advisor to the MOCST on policy issues for telecommunications for a period of two years; (iii) a Technical Advisor to provide technical assistance in the establishment and development of efficient LTA, development of regulatory systems, producers and regulations; (iv) a Legal Advisor to the Minister of Finance to assist with the formulation of a Competition Law and other institutional matters related to regional commerce for a period of three years.

The **Advisor to the LEC Board** was appointed in March 2001 on an 18-month contract. The contract was subsequently extended several times in line with the extension of the LEC management contract up to December 2006, totaling almost six years. The Advisor provided valuable assistance to the LEC Board, the DOE and the project. The Advisor set and monitored the IMTF/MC targets, facilitated at several occasions in matters with IMTF/MC and the Board, in technical issues such as electrification project management as well as drafted TORs for the extensions of the management contracts. Furthermore, he monitored on a monthly basis LEC technical, commercial and financial indicators and benchmarked them to utilities in the region.

The **Advisor to MOCST** commenced duty in October 2002 on a 2-year contract. He resigned in May 2004. Subsequent to the resignation of a Technical Advisor to the MOCST the Advisor to LTA was transferred to the MOCST. The **LTA Advisor** was engaged for a period of two years with effect from August 2002. After the transfer of the LTA advisor to the MOCST, a Semi Resident Advisor (SRA) was subsequently engaged on quarterly visit of four weeks per visit to LTA from January 2006, to provide targeted support on issues relating to exclusivity, interconnection regulation, universal service target, and revision of license fees. However, the contract was terminated due to unacceptable deliverables of the SRA to LTA.

The provision for a Legal Advisor to the Minister of Finance and Development Planning was not utilized.

Capacity Building: The AfDB financed LTA staff training in regulation, contract monitoring. IDA financed training for the Ministry of Finance, Energy, LEA and the Central Bank.

Component 6: Implementation

The project was to support the PU through funding for a) salaries of the key senior PU staff, b) some of the operating costs of the PU, c) short-term consultancies to provide advice on specific issues, including financial management and d) public awareness costs. The Privatization Unit had been established in 1995 by Act of Parliament, Privatization Act No. 9 of 1995 and had managed the first Privatization project for five years. During the LURP project, the average size of the unit was 17 staff (of which 13 were professional staff) during 2001-2005 and nine (of which five were professional) staff during 2006-2008. The professional staff stayed on average 4.5 years in the PU. Staff included a Director, a Finance Manager, three Accountants, three Senior Economists, two Legal Officers, a Senior Information Officer, a Coordinator, a Secretary to the Director, two Receptionists/Secretaries, a driver and two office assistants. About half of the staff was paid by AfDB. Considering project activities, additional consultants and funding other implementing units such as the Rural Electrification Unit, it seems that the PU was overstaffed. The Finance Department was very well run under the Finance Director, an international consultant, who also took on the procurement function. After several implementing agencies indicated the need to strengthen their capacity in procurement, the PU organized in 2004 a two weeks procurement training workshop. Reporting of the implementing agencies was good overall, showing some weaknesses, especially on the rural and electrification projects towards the end of the project. Audits of the LURP project accounts were unqualified. Lack of evaluations renders the assessment of important parts of the project difficult.

Annex 3. Economic and Financial Analysis

(including assumptions in the analysis)

The following table shows the behavior of key financial performance indicators of LEC. This set of indicators are also calculated in the project PAD. The company reflected a substantial decrease in accounts receivable in the period from FY 2002 to FY 2007, from 77.83 days to 50.85 days respectively. Also, in the current ratio the company reflects a healthier position in current assets and liabilities from 0.81 in FY 2002 to 1.99 in FY 2007. The company also experienced reduction in debt from 0.28 in FY 2003 to 0.11 in FY 2007 reflected in debt to equity ratios. Furthermore, the company experienced a significant increase in profitability, from significant losses in FY 2004, M 26.4 million, to profits of M 40.2 million in FY 2007.

It is important to address the issue of obligations the company is incurring through the responsibility it has to build household service connections that users have made payments for. This exposure is reflected in a liability to LEC of at least M 3 million for the FY 2008. (Given the lack of available data for previous years, this liability could not be estimated for previous years.) LEC's financial audits for FY 2008 are not available as yet, and would have to reflect this liability.

LEC's Financial indicators

FY	2003	2004	2005	2006	2007	2008
Accounts receivables (days)	77.83	89.97	59.41	41.68	50.86	
Current Ratio	0.81	0.88	1.16	2.14	1.99	
Debt to Equity	0.28	0.27	0.12	0.09	0.12	
Net income (in Maloti)	-26,467,294	-6,944,688	-6,007,540	37,709,522	40,213,745	
Gross Operating Margin	0.35	0.46	0.52	0.59	0.63	
Interest Coverage				44.24	184.34	
liability (in Maloti)						2,943,942 ⁵¹

⁵¹ This figure takes into account only 11,026 fully paid potential costumers at a cost per connection of US\$ 276 (equal to connection fee). The costs to connect a household includes also installation of networks (see Annex 11)

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Mohua Mukherjee	Senior Energy Specialist	AFTEG	TTL
Gaiv Tata	Manager	FRM	Subregional manager
Ludmilla Butenko	Operations Advisor	SAC01	Financial Specialist
Alfred Gulstone	Power Specialist		Energy Specialist
Gareth Locksley	Telecom Specialist	CITPO	Telecom Specialist
Seringne Omar Fye	Environmental Specialist		Safeguard Specialist
Francesco Samo	Procurement		Procurement
Marilyn Manalo	Senior PSD Specialist	AFTFP	Operations Officer
Richard Cambridge	Operations Advisor	AFTQK	Overall Project Quality Advisor
T. Mpoy-Kamulayi	Lead Counsel	LEGAF	Lawyer
Irene Chacon	Program Assistant	AFTFP	Program Assistant
Rona Cook	Team Assistant	AFTFP	Team Assistant
Supervision/ICR			
Shenhua Wang	Senior Infrastructure Specialist	EASUR	TTL
Gilberto de Barros	Senior Private Sector Development Specialist	AFTFP	TTL
Fatiha Amar	Program Assistant	ECSPF	Program Assistant
Charles Annor-Frempong	Senior Country Officer	AFTAR	Government Liaison
Amarquaye Armar	Lead Energy Specialist	ETWEN	Energy Specialist
Slaheddine Ben-Halima	Consultant	AFTPC	Procurement
Laurent Besancon	Senior Regulatory Specialist	CITPO	Telecom Specialist
Boutheina Guerhazi	Senior Regulatory Specialist	CITPO	Regulatory Specialist
Sidonie Jocktane	Program Assistant	AFTFP	Program Assistant
Georgette B. Johnson	Program Assistant	AFTFP	Program Assistant

Edmund Motlatsi Motseki	Operations Officer	AFMLS	Government Liaison
T. Mpoy-Kamulayi	Lead Counsel	LEGAF	Lawyer
Jonathan Nyamukapa	Sr. Financial Management Specialist	AFTFM	Financial Management
Likeleli Theresia Rasethuntsa	Team Assistant	AFMLS	Team Assistant
Adelia N. Chebeia Suurna	Program Assistant	CAFAS	Program Assistant
Dileep M. Wagle	Lead Private Sector Development Specialist	AFTFP	Lead Specialist
Michaela Weber	Private Sector Development Specialist	AFTFP	ICR TTL and Primary Author

(b) Staff Time and Cost

Stage of Project Cycle	Staff Time and Cost (Bank Budget Only)	
	No. of staff weeks	USD Thousands (including travel and consultant costs)
Lending		
FY00	21	129.14
FY01	36	171.29
FY02		2.19
FY03		0.00
FY04		0.00
FY05		0.00
FY06		0.00
FY07		0.00
FY08		0.00
Total:	57	302.62
Supervision/ICR		
FY00		0.00
FY01		0.00
FY02	16	81.06
FY03	38	251.81
FY04	30	159.08
FY05	24	116.86
FY06	24	141.48
FY07	19	100.55
FY08	21.28	81.00
Total:	172.28	931.84

Annex 5. Beneficiary Survey Results
(if any)

Not applicable

Annex 6. Stakeholder Workshop Report and Results
(if any)

Not applicable

Annex 7. Summary of Borrower's ICR and/or Comments on Draft ICR

Kingdom of Lesotho

Ministry of Finance and Development Planning

Implementation Completion Report for Lesotho Utilities Sector Reform Project – Short Version

(IDA Credit No. 3484-LSO, AfDB No/F/LSO/PL/KE/2002/2, EU Grant No. 5002/LSO).

1. INTRODUCTION

1.1 Lesotho's national development objectives and strategies as articulated in a number of policy documents during the late 1990s emphasizes the following objectives of (i) poverty reduction through sustained economic growth and employment generation, (ii) sustainable human development, and (iii) integration with regional and global economies through maintaining external competitiveness, promoting private sector development (PSD) and building institutional capacity especially of relevant financial resource institutions to support these efforts.

1.2 Given Lesotho's small size, limited natural resources, and low domestic savings, at the core of the Government of Lesotho (GOL) medium term strategy were policies to enhance export competitiveness and attract foreign direct investment. Given the uncertainties surrounding agriculture and proceeds from SACU, the traditional sources of economic growth, GOL has to target manufacturing of high-value-added goods and develop other non-traditional activities, such as tourism, as the main engines of the future growth.

1.3 GOL's policy on private sector development has been articulated through the Investment Promotion Centre of the Lesotho National Development Corporation for foreign investments, and the Business Advisory Promotion Services for domestic private investors. GOL's position is that the private sector is best placed to promote investment and growth, with government providing the enabling environment for private sector participation in the economic activity. Within this framework, GOL passed the Privatization Bill in 1995. This was followed up by the establishment of the Privatization Unit (PU) under the Ministry of Finance and Development Planning (MOFDP) to implement GOL's privatization program and the appointment of the Private Sector Advisory Committee to oversee the privatization process.

1.4 GOL then embarked on a disinvestment program focused on air transport, the food processing, construction, tourism and pharmaceutical industries. The program was supported by the World Bank's ongoing Privatization and Private Sector Development Project (PPSDP). The PPSPD was designed to support the general process of privatization and private sector development in the country but did not provide for comprehensive regulatory reforms, which are especially necessary when addressing issues of greater private sector participation in business and basic infrastructure. The program started slowly, but gained momentum and some twenty transactions were completed. The project's initial focus was affected by a rapid deterioration (1997/1998) in the public enterprises in banking, telecommunications, electricity and water sectors which are key to the provision of essential business and basic infrastructure. The deterioration in these enterprises and the resulting increase in the fiscal burden prompted GOL to give priority to the banks and major utilities, which became the central focus of the program, as stated in GOL's March 23, 1998 letter outlining its future policy for the privatization program. The PPSPD was restructured to provide support: (i) to stabilize the banking sector and avert a banking crisis; (ii) introduce a financial work out specialist team at Lesotho Telecommunication

Corporation (LTC); (iii) support the Ministry of Communications, Science & Technology (MOCST) in the regulatory reform of the telecommunications sector, and (iv) begin work on the establishment of a regulatory framework for the electricity and water sectors, to encourage private investment.

1.5 GOL, through adoption in December 1999 of a nine-month International Monetary Fund (IMF) staff-monitored program of financial and structural reforms signaled serious commitment to continue with economic reform. The program covered the period January to September 2000 and embodied quantitative benchmarks to stabilize the budget deficit; strengthen the revenue base; and exercise greater control over public expenditure. Commendable progress was made by the government of Lesotho in the implementation of this 9-month program, which ended in September 2000. The IMF reported that the government has made a determined effort to implement the program; nearly all the program's performance benchmarks have been observed, and overall, the implementation of the program has been satisfactory. As part of the program, GOL and the IMF agreed that the public utility sector, in particular, the electricity sector, would be reformed and restructured. This was to be realized through the implementation of the Lesotho Utilities Sector Reform Project (LURP).

1.6 The key objectives of GOL's strategy for the Public Utilities sector and private sector development in general in the short term were to: (i) reduce the fiscal burden of public enterprises, in particular the utilities; (ii) implement a modern legal and regulatory framework in the telecommunications and electricity sectors to lay the foundation for open, market-driven development; (iii) finalize the privatization of LTC and privatize the Lesotho Electricity Corporation (LEC); (iv) to ensure that the benefits of privatization are shared by the local population, including some local shareholding in privatized enterprises. GOL's role in the utilities sectors would shift to policy-making rather than owning the assets and providing the service. Once service coverage and efficiency of electricity and telecommunications improved on a financially sustainable basis, GOL would be in a better position to pursue its PSD strategy of entrepreneurship development and the creation of an investor-friendly environment.

2. PROJECT OBJECTIVES AND DESIGN

2.1 The objective of the Project is to reform the Public Utilities sector in Lesotho with a view to: (i) ensuring the efficient and sustainable operation of the sectors; (ii) opening up the market to the private sector to mobilize resources for the development of the utilities sector; (iii) ensuring wider access to basic utility services; (iv) implementing an effective regulatory framework for improved performance in the sector; (v) building capacity in the regulatory agencies to ensure effective participation in the development of the sector.

2.2 The Project addresses a key constraint in the implementation of GOL's ongoing private sector-led development strategy. Specifically, it would seek to improve business infrastructure (electricity and telecommunications services, including provisions for internet connectivity in the future), as the low levels of service coverage have proved to be a major bottleneck to attracting private investment. Attracting private foreign and domestic investment and expertise is a cornerstone of GOL's overall economic growth and employment generation strategy.

2.3 The Project supports GOL's objective of giving priority to the reform of and divestiture from the utilities sector. This would be done through the consolidation of the privatization of LTC, the privatization of LEC, together with the introduction of a stable, transparent and modern regulatory framework for both sectors. These reforms were to pave the way for private sector

investment capital and management to help to improve the coverage, efficiency, affordability and reliability of electricity and telecommunications services, thus releasing scarce GOL resources to be redirected to priority activities such as social service delivery.

2.4 The total cost of the project was estimated at US\$39.50 million equivalent. The finance plan was a cost sharing arrangement between IDA, the ADF, the EU and GOL.

3. PROJECT EXECUTION

3.1 Project oversight responsibility was with the MOFDP. The PU was the executing agency and was responsible for overall project coordination, implementation and all procurement funded by the Project. The project was implemented in consultation and coordination with the relevant line ministries, primarily the MOFDP, the Ministry of Natural Resources (MONR), and the MOCST. Other implementing agencies included the Department of Energy (DOE) and its Rural Electrification Unit (REU), the Lesotho Telecommunications Authority (LTA), the Lesotho Electricity Authority (LEA), LEC, Lesotho Unit Trust and the Central Bank of Lesotho (CBL).

3.2 The PU was responsible for ensuring that financial management and reporting procedures are acceptable to the GOL and the project financiers. The financial management and accounting systems were reviewed and found to be generally adequate. The financial management could be relied upon to produce understandable, relevant, timely and reliable financial information. The Project had a Financial Procedures Manual and an adequate internal control system, including regular reconciliation of bank accounts, adequate segregation of duties, proper expenditure authorization procedures. The overall financial management systems and related arrangements for handling project financial activities were satisfactory.

3.3 Monitoring and evaluation of the project implementation were carried out at regular intervals. The PU prepared and submitted to the WB and the AfDB Quarterly Project Management Reports as well Annual Reports. Both financiers carried out twice-a-year supervision missions, and a mid-term review took place in the second half of 2003.

4. PROJECT PERFORMANCE

4.1 This section provides a brief review of the project performance.

Component 1: LEC Divestiture and Electricity Expansion

4.2 Component 1.1: Interim Management Task Force (IMTF)

4.2.1 This component intended to address the operational, managerial and financial problems experienced by LEC. Technical assistance was provided by way of performance-based management contract for 18 months by the IMTF that would assume full responsibility for the day-to-day management of LEC until a strategic investor is in place. Among other tasks, the IMTF was responsible for: (i) turning around LEC's financial situation; (ii) addressing the backlog of connections by installing up to 8,000 new electricity connections; (iii) changing over 8,000 existing credit meters to prepaid meters in order to improve LEC's revenue base and reduce the need for meter readers; and (iv) defining the service territory deemed commercially viable, which will be offered to the strategic investor for expansion of the network.

4.2.2 The original IMTF contract commenced in February 2001 and came to an end in July 2002. Following completion of the IMTF contract, a new short-term caretaker management contract was put in place for 4 months intended to cover the interval between the original IMTF contract end date and the expected commencement of the strategic investor's operation of LEC. In line with the revisions of the implementation schedule for the LEC privatization, the contract with SAD-ELEC was extended several times, until 30 September 2006.

4.2.3 Overall, the objectives set out under the IMTF contract have been surpassed. The LEC's performance has improved significantly from a financial and operational standpoint. During the project implementation period 37,500 new connections have been made. The project financed about 12,100 new connections, and the rest was funded out of LEC revenues. The LEC customer base has grown from approximately 23,500 customers to some 61,000 customers. Key achievements under the management contract are shown in Annex 3. Annex 4 provides details of the electrification contracts and other assistance funded by the project. The success of this project component can be attributed in part to considerably longer than planned duration of the management contract, and to rigorous contract monitoring and management.

4.3 Component 1.2: Sales Advisory Group (SAG)

4.3.1 This component made provisions for the SAG to be appointed to assist with the divestiture of the LEC. The scope of work included a market and economic analysis, a due diligence of LEC, public relations, defining privatization options, identifying potential investors, finalizing the legal and regulatory framework for the electricity sector and assistance in establishing the regulatory authority, and assisting to conduct the competitive bidding process through to contract close.

4.3.2 The process, originally programmed to take 13 months, was considerably delayed and finally came to a halt after 54 months when GOL decided to suspend LEC privatization efforts due to unsuccessful tenders. While an originally envisaged 13-month timeframe for LEC privatization was overly ambitious, further delays were caused by the review of GOL's preferred privatization strategy for LEC (Public Services Concession), extensions of the bid due date at bidders' request, and the decision to conduct a re-tender in 2005 after an unsuccessful initial tender in 2004. The new tender conducted on revised terms during 2005/6 failed to produce acceptable bids. Based on the experience with two tenders it was decided to close the tender.

4.3.3 The Steering Committee for the Restructuring of LEC (SC) was of the view that in order to consolidate and build upon improvements made in LEC's performance since 2001, it would be necessary for LEC to obtain competent management services for a period of 3-5 years. In the second half of 2006 LEC started the recruitment process for positions of Managing Director (MD), Deputy Managing Director (DMD) for Finance and DMD-Commercial (which were at the time filled by SAD-ELEC personnel). The recruitment for all was completed, and new DMDs started work in early 2007, while the new Managing Director commenced duty in October 2007.

4.3.4 LEC was transformed from a corporation into a company incorporated under the Companies Act. LEC (Pty) Ltd (Establishment and Vesting) Act was enacted in January 2006 and the commencement notice and the vesting notice were issued on 01 December 2006 and 19 December 2006 respectively. The main objective of the Act was to facilitate for the incorporation of the Lesotho Electricity Company and to provide for the transfer of rights and obligations, and vesting of the assets of LEC to the Lesotho Electricity Company. LEC (Pty) Ltd was subsequently issued a license by the LEA under the new regulatory framework.

4.4 Component 1.3: LEC Staff Streamlining

4.4.1 This component included (a) retrenchment packages for affected LEC staff; (b) training and counseling of the retrenched employees; (c) comprehensive monitoring and evaluation of the LEC downsizing program; (d) training of retained employees; and (e) a government communication program on the LEC restructuring process.

4.4.2 LEC was successfully restructured and right-sized by the IMTF in 2001/2, culminating in the retrenchment of 164 staff without incidents like strikes / workouts and the recruitment of more skilled staff. LEC had 620 permanent staff when the IMTF took over in February 2001, and 458 permanent staff at the end of the IMTF contract in July 2002. This figure increased to 509 permanent staff by the end of 2006 due to the needs of a rapidly growing and expanding business (e.g. through new and/or expanded departments, additional staff and operations, approved by the Board). However LEC permanent staff figures are still below the 2001 levels and LEC's customer to employee ratio has more than tripled (from about 30 in 2001 to about 110 by structure and 120 by actual number of staff at the end of 2006).

Component 2: Regulatory Framework

4.5 Component 2.1: Telecommunications Regulator

4.5.1 The project included support to the newly established Lesotho Telecommunications Authority (LTA) to ensure that it develops the full set of skills and capabilities required to discharge its duties under the LTA Act. The support was to be provided during the initial stages of their operations for a period of two years and included funding for: (i) some of the running costs of the LTA (shortfall after license revenues are taken into account); (ii) a long-term resident advisor; (iii) training and study tours, (iv) purchase of technical equipment necessary for the LTA to discharge its duties; and (v) short-term consultancies to provide advice on specific issues. It was subsequently agreed that the assistance would be provided to the LTA throughout the project duration.

4.5.2 A resident advisor was hired in August of 2002 under a two-year contract to assist the LTA to fulfill its duties. Following the departure of the resident advisor in early 2004 and subsequently it was agreed that the LTA would hire a semi-resident advisor to provide targeted support on issues related to exclusivity, interconnection regulation, universal service target, revision of license fees and other issues. The semi-resident advisor started work in May 2005, but the contract was subsequently terminated as the LTA was not satisfied with the quality of deliverables. The project funded several studies, including: (i) Tariff study; (ii) Demand for telecommunications services study; and (iii) Interconnection and Tariff Rationalization consultancy. The frequency monitoring and management equipment was acquired in 2003 as planned. Various training activities were undertaken by 25 staff and Board members.

4.6 Component 2.2: Electricity Regulator

4.6.1 The project would support the introduction of a stable, transparent and modern regulatory framework in the electricity sector through the finalization and implementation of the regulatory framework in the sector. The support was to be provided during the initial stages of their operations for a period of two years and would include funding for: (i) initial establishment costs and the running costs of the regulator (shortfall after license revenues are taken into account); (ii)

a long-term resident advisor; (iii) training and study tours, and (v) short-term consultancies to provide advice on specific issues. It was subsequently agreed that the assistance would be provided to the LEA throughout the project duration. It was also agreed that the project would finance salaries of the core staff of the LEA, including the Chief Executive and 4 Directors.

4.6.2 The original plan envisaged the LEA being established in November 2001, with a major assumption that the LEA Act would have been enacted by August 2001. The LEA Act was enacted at the end of 2002, opening the way for the establishment of the LEA, but then delays were experienced with the appointment of the Board and the Chief Executive. The LEA commenced operations in August 2004. The Directors' positions were filled between June and September 2005. The project funded several training activities for 8 staff and Board members.

4.6.3 A resident advisor was hired in June 2003 under a two-year contract, and, pending LEA establishment, he was temporarily based at the PU. The Advisor provided valuable assistance to the project and the LEA. In particular the Advisor was actively involved in the preparation of regulations and rules to supplement the LEA Act and an LEA (Amendment) Bill, which was carried out under the SAG contract. Following completion of the Advisor's 2-year contract, the LEA contracted his services on a part time basis for the period up to December 2005.

4.6.4 The project funded A Cost of Supply study to determine the cost of supplying electricity in Lesotho, define tariff levels that are in line with the LEC license and develop a robust analytical framework for tariff reviews by the LEA.

4.6.5 LEA (Amendment) Act was enacted in 2006 and commenced in December 2006 together with sections of the Principal Act which were not put into operation when the Principal Act was enacted in 2002.

Component 3: Future Electricity Options

4.7 Component 3.1: Muela Options Study

This component provided support in the form of consultancy services to undertake a study to define commercialization options for the Muela Hydropower Plant. The study was completed in May 2002.

4.8 Component 3.2: Future of Hydropower Study

4.8.1 This component intended to provide support in the form of consultancy services to undertake a study to examine the potential for developing the hydropower generation in Lesotho by independent power producers geared both to the export market (including the Southern Africa Power Pool) and the domestic market.

4.8.2 During the Mid-Term Review in November 2003 it was agreed that the funding for this component would be reallocated to support the development of a National Electrification Master Plan (NEMP) by the DoE. The NEMP consultancy commenced in 2006 and was completed in August 2007.

4.9 Component 3.3: Electricity Access Pilot Projects (EAPP)

4.9.1 This project component provided for support to the DOE for the design and implementation of a pilot program intended to deliver sustainable electricity services to areas outside the LEC's service territory.

4.9.2 This component was expected to be designed in the first half of 2002 and implemented between the second half of 2002 and 2004. However the preparatory activities started only after the November 2003 Mid-Term Review, when it was agreed that the project would also finance salaries of the core staff of the REU, including the Project Manager and 2 Project Engineers. The Project Engineers started work in June 2004, while the Project Manager was appointed in August 2006. The project funded several training activities for the REU staff.

4.9.3 Under this component, the DOE and its REU implemented 4 rural projects for the following areas: Semonkong, Dilli-Dilli/Sixondo, Qholaqoe and Ha Sekake. The pilots were completed in the second half of 2007. A brief description of the implementation of the pilot projects is given below, and further details are provided in Annex 5.

4.9.4 The Semonkong electricity access pilot was implemented to test the approach of outsourcing the operation of this small electricity network, which was previously operated by LEC, to a private operator. A contractor was recruited to manage the generation, distribution and supply networks. The contract ended on 31 December 2006, and the operation of the network was handed back to LEC.

4.9.5 The Dilli-Dilli/Sixondo access pilot was carried out to test the cross-border grid extension approach, whereby the electricity supplied from the South African network for rural areas located closer to the South African electricity network than the LEC network. A distribution and supply network was built to allow the connection of about 250 households to existing Eskom network, and 233 households were connected.

4.9.6 Qholaqoe access pilot was meant to test the approach of extending LEC grid to rural areas located close to the LEC network. In this case a distribution and supply network was built to allow the connection of the households in Qholaqoe to existing LEC network, and 201 households were connected.

4.9.7 The Ha Sekake access pilot was implemented to determine under which conditions it would be viable to use a diesel generated power grid to supply electricity to the households in the village of Ha Sekake. 230 households were electrified under this pilot.

4.9.8 It was envisaged from the onset that, when completed, the ownership and operation of the pilot projects would be handed over to the communities through the existing local government structures. The Ministry of Local Government appears to be not ready to take over the projects. The current arrangement is that assets are owned by the DOE. Discussions are ongoing concerning the transfer of asset ownership to the MOLG, while the responsibility for running the projects will remain with DOE/REU. A company has been hired in each project to operate, maintain and manage the electricity distribution and supply network for a one year period, with the REU carrying out the monitoring and supervision role.

Component 4: Additional Advisory Services and Capacity Building

Additional Advisory Services

4.10.1 The Project provided support to strengthen the capacity of staff of the relevant Ministries that were involved in the implementation of the Project. Resources were made available for advisory assistance, training and study tours of staff at the MONR, MOCST, MOFDP, LEA, LTA, CBL and PU.

4.10.2 Advisory services included: (i) a Technical Advisor to the LEC Board and the DOE to assist with the supervision of the IMTF, advise on the SAG assignment issues, among others, for a period of 18 months; (ii) a Technical Advisor to the MOCST on policy issues for telecommunications for a period of two years; (iii) a Technical Advisor to LEA to assist in finalization of the key procedures to the Regulator to award licenses to the private sector, and to provide in-house training for the staff of LEA. (iv) a Technical Advisor to provide technical assistance in the establishment and development of efficient LTA, development of regulatory systems, producers and regulations; (v) a Legal Advisor to the Minister of Finance to assist with the formulation of a Competition Law and other institutional matters related to regional commerce for a period of three years.

Capacity Building

4.10.3 The Project financed several training workshops, courses and study tours for different stakeholders. These included a training workshop for CBL staff on, among others, introduction to financial markets, compliance and supervisory standards for securities markets, and concept of micro financing. The later resulted in the development of microfinance sub-sector through the IFAD funded Rural Finance Intermediation Program. A workshop on the Commercial Court Rules provided opportunities for the High Court personnel to familiarize themselves with the operations of the Commercial Court. This will be followed by a project for strengthening of the Commercial Court, under the Millennium Challenge Account (MCC).

4.10.4 The Project also funded training courses/workshops for (i) the Ministry of Finance and Development Planning on procurement, project and financial management, and public debt management; (ii) LTA on Telecommunications Regulatory Master Class for Board and staff; and (iii) PU and other stakeholders World Bank Procurement Procedures, a short term advisor was also engaged to assist the implementing agents on preparation of procurement plans and bidding and contract documents. Training on Contract Negotiations, Management, and Monitoring equipped project beneficiaries with necessary contract negotiations and contract management skills. Training on Financial Budgetary and Management of Projects, Computerized Financial Management and Auditing, and Disbursement Procedures enhanced skills of accountants of the beneficiaries in managing project funds effectively, adhering to the approved budget as well as processing withdrawal application forms accurately and timely. Accountants were also equipped with computer applications resulting in effective manage and control of and production of unqualified LURP Audited Statements for the life of the Project.

5.10.5 Several courses on Utility Regulation and Strategy enhanced economic, financial and strategic skills of the LEA staff. Study tours by LEA Board of Directors and staff to regional and international regulators helped them to gain better understanding of how other regulators conduct their business and with networking with other regulators. A visit to Southern African Power Pool

(SAPP) in Harare assisted in understanding the operations of SAPP and how its members fit in the whole arrangement.

Component 5: Private Sector Development

4.11 Component 5. 1: Unit Trust

This component included support in the form of: (i) consultancy services to establish the Unit Trust; (ii) subsidy for operating costs of the Unit Trust for 2 years; (iii) capacity building of the Collective Investment Schemes Regulatory Authority (the CBL); (iv) consultancy services to assist with the implementation of a warehousing facility for shares of privatized companies that are retained by GOL; (v) support for operating costs of the warehouse for 2 years. The support was provided as envisaged, except for subsidizing operating costs of the warehouse, the establishment of which did not go ahead based on the recommendations of the preparatory consultancy.

4.11.1 The Lesotho Unit Trust was established in 2001 pursuant to the Government's policy of broadening Basotho participation in divestiture of shares of para-statals previously owned by the Government.

4.11.2 The overall objective of the Unit Trust was to achieve capital growth over a medium to long-term period while affording investors an indirect share ownership in Lesotho privatized enterprises. The Unit Trust benefited in the Project in the form of financial support and tax concessions. These benefits are detailed below:

Taxation

4.11.3 Lesotho Unit Trust was not liable for income tax and all other taxes falling broadly within the Income Tax Act for a period of five years from commencement of the unit trust operations. Unit holders were also exempt from the provisions relating to gains of assets as set out the Income Tax Act of 1993. This benefited the fund and the unit holders as investments grew at a phenomenal rate. Initially, the fund was mandated to invest thirty percent (30%) of the portfolio in Lesotho privatized companies but as the fund grew it became difficult to meet this requirement. Lesotho Unit Trust therefore, had to ask for moratorium which resulted in the percentage being reduced to Fifteen percent (15%). Despite the amendment of the mandate after moratorium was granted by the Regulator (Central Bank of Lesotho), the fund continued to grow and the challenge still remained for the mandate to be met which resulted in the fund being capped in 2004 and still remains capped. This was beneficial and motivational to Basotho to develop an investment culture.

Subsidy to Management Company

4.11.4 The Government undertook to subsidize the Management Company to defray part of its set up and running costs and to provide for working capital in the sum of M1m (One Million Maloti) payable under certain terms and conditions.

For example

- if the Management Company does not have sufficient income to cover expenses referred to;
- if after examination of the Management Company's financial statements, it is evident that the costs are not covered by income as aforesaid, the

Government undertook to subsidize the shortfall up to an amount of M500,000 (Five Hundred Thousand Maloti) per year for two years

- Such subsidy was paid bi-annually in both the first and the second year.

4.11.5 The subsidy was of great help as the management company was not making profits in the first and the second year of its establishment. Therefore, Lesotho Utilities Sector Reform Project was pivotal in getting this business off the ground. To date the business boasts a fully fledged investment house with presence throughout the country.

4.12 Component 5. 2: Private Sector Development Studies

Technical assistance was to be financed to identify and support activities that will encourage regional integration efforts, identify Lesotho's areas of comparative advantage and increase competitiveness of Lesotho firms in the region. During the Mid-Term Review in November 2003 it was agreed that the implementation of this component would not go ahead as similar assistance would be made available under a new WB-funded project under the Ministry of Trade and Industry, Co-operatives and Marketing (MOTICM).

4.13 Component 6: Implementation Support to the PU

The project support to the PU included funding for: (i) salaries of the PU staff; (ii) some of the running costs of the PU; (iii) short-term consultancies to provide advice on specific issues, and (iv) public awareness costs.

5. SOCIAL AND ENVIRONMENTAL IMPACT OF THE PROJECT

5.1 Project aspects with potential social and environmental impact are discussed below.

5.2 LEC restructuring/ downsizing program. A total of 164 individuals left LEC's employment through retrenchment and outsourcing of some non-core activities such as security and cleaning services. When investigating the cost-benefit of outsourcing, consideration was given to the introduction of 'empowerment' options, i.e. the establishment of small companies owned and staffed by former LEC personnel. Retrenched LEC cleaning staff were assisted to establish a company and acquire appropriate skills to provide contracted-in services – initially to LEC's Head Office, but also successfully marketed to other entities. The retrenched employees received generous retrenchment packages. Counseling services were extended to all retrenched employees to prepare them psychologically for the transition following a retrenchment decision, and where possible, assistance was also provided in finding new employment. Basic training was given in business enterprise and entrepreneurship development to retrenchees in small business development.

5.3 LEC tariff increase: Up until the end of 2003, electricity tariffs in Lesotho remained unchanged for 10 years. Inflation had therefore significantly eroded their real value. Based on several tariff reviews undertaken during 2002/3, a tariff-setting methodology was developed and a three-year Transition Tariff Adjustment Plan was formulated for LEC tariffs to reach economically efficient levels in real terms. The plan attempted to balance the competing objectives of minimizing the financial impact on domestic consumers and minimizing the (implicit) subsidy required for as long as tariffs are below the target levels. The plan involved three annual tariff increases for domestic customers and a rebalancing of energy and demand

components for commercial and industrial customers. The plan was implemented during 2004-2006 period without any significant negative public reaction.

5.4 LEC electrification program: During the project implementation period 37,500 new connections have been made. The LEC customer base has grown from approximately 23,500 customers to some 61,000 customers. An Environmental Management Plan was developed as part of the initial Environmental Review in 2000, and the November 2003 Mid-Term Review found that LEC had largely complied with the Plan's recommendations. A further study to assess the environmental impact of the LEC's new connections was carried out in 2004. The environmental impact of the electricity privatization project was generally found to be benign, with the majority of impacts being minor (e.g. inconveniences during the construction phase) and subjective (e.g. aesthetics). These would be outweighed by the significant economic and social benefits of having electricity access.

5.5 REU rural pilots program: A study to assess the environmental impact of the new electricity connections of the pilot program was carried out. The findings are similar to those in respect of LEC's electrification program.

5.6 Overall, it appears that the project has not had significant and long-term negative environmental or social impacts.

6. PROJECT SUSTAINABILITY

6.1 The prospects for overall project sustainability appear to be likely. The project has been instrumental in establishing and consolidating the requisite legal, regulatory and institutional framework for both electricity and telecommunications sectors. The new regulatory agency for the electricity sector, the LEA, is fully established and operational following the complete enactment of the LEA Act and the LEA (Amendment) Act. Both the LEA and the LTA are financially self-sufficient through fees levied on the institutions in the sector they administer.

6.2 Even though it has not been possible to attract private sector investment in LEC at this stage, its performance has improved significantly from a financial and operational standpoint as a result of project interventions. A commercially viable Service Territory for LEC has been defined and its customer base more than doubled. The LEC is now in a position to finance management services and a significant electrification program.. The LEC's top management positions, which were previously held by the management contractor's personnel, have been filled through a competitive process. The LEC's transformation from a Government corporation into a company incorporated under the Companies Act will further strengthen its autonomy. The REU has been established to spearhead electrification activities outside LEC's Service Territory, and a number of different technical models for electricity delivery have been tested.

6.3 The capacity building efforts have produced substantial results for all implementing agencies.

7. PERFORMANCE OF THE BORROWER AND COFINANCIERS

All key players performed reasonably well during both the preparation and implementation of the project. There were some delays on the side of the Borrower, but these could be explained by

some of the project targets/ action plan set at the project formulation as being overly ambitious and optimistic in view of the policy and structural reforms that were envisaged for the power sector. With regard to the Financiers, it is likely that undertaking joint supervision missions instead of separate missions by the WB and the AfDB would result in more constructive consultations and outcomes, but it is recognized that achieving such synchronization could be difficult.

8. CONCLUSIONS, LESSONS LEARNED AND RECOMMENDATIONS

8.1 Overall, the project implementation has been satisfactory, and most of the project development objectives have been achieved: e.g. successful turn-around of LEC, increased access to electricity, establishment of electricity and telecommunications regulators, implementation of electricity access pilot projects, and capacity building.

8.2 Despite undertaking an extensive investor search, establishing a modern, flexible and demonstrably professional regulatory regime, cleaning up the balance sheet, and improving the tariff regime, and conducting two tenders, it did not prove possible to privatize LEC. The Public Services Concession, which was adopted midstream in place of the originally planned outright sale, is a complex format for inviting the private sector to take over a small utility and it was new and unfamiliar to both Government and private investors. Throughout the process it was evident that there was very limited interest in the opportunity from important and capable investors. It appears that this can generally be concluded for a utility such as LEC – a very small scale distribution company in a network requiring extensive further electrification.

8.3 Although it has not been possible to attract private sector investment in LEC, the reasons for such an outcome are valid and should be a lesson to all stakeholders that reforms require time and genuine buy-in by all who are involved before they are implemented. Importantly, the Financiers should give due attention to local views and concerns. It is necessary to decide on the format of the privatization in advance after considering all the options – the mid-process change to the format of the privatization was the main reason for the considerable protraction of the program.. Furthermore, it is important that all involved have realistic expectations of what is achievable given the situation on the ground.

8.4 The LEC Management Contract model, coupled with rigorous contract monitoring, has worked well and resulted in significant improvements in LEC's financial and operational performance. Considerably longer than planned duration of the management contract due to delays in the privatization transaction allowed to consolidate achievements and transform LEC into a viable utility. Following recruitment of new top management, who replaced the management contractor's personnel, the Government and the LEC should now focus attention on ensuring continued good performance and sustainability beyond the project's life.

8.5 The project electrification component has been very successful, with the number of electricity connections more than doubling since early 2001, but access to electricity is still very low (about 15%) and LEC customer base of about 61,000 is very small. LEC should therefore expand its electrification activities at the fastest possible rate. Evidence from recent energy surveys shows that the energy costs of households not connected to the electricity grid are often higher than those of grid-connected households. This fact highlights the attractiveness of electricity as a power source for households. The roll-out of the distribution network should be done following the least cost expansion plan to maximize investment efficiency. LEC is now in a position to finance a significant electrification program.. Furthermore, as a state-owned entity which is operated efficiently, LEC will also continue to be eligible for concessionary

development funding, such as from the WB or AfDB, which would be necessary in order to achieve a faster electrification roll-out and the GOL's goal of electrification rate of 35% by 2015.

8.6 The REU has been established to spearhead electrification activities outside LEC's Service Territory. Several different technical models for electricity delivery have been tested in the 4 pilot projects, and about 660 new connections made under the pilot program compared to the 4,000 connections envisaged during project formulation. The average connection costs for the three pilot projects that are about to be completed is M18, 000 per connection; this confirms the fact that rural electrification is very costly. The Government will have to subsidize the infrastructure for all rural electrification projects. It has been agreed that the Government will initially subsidize the tariffs in such a way that the tariff in the three project areas will be the same as that of LEC. A study to determine the appropriate tariffs and subsidy levels will have to be carried out in due course. Furthermore, the institutional and operational arrangements in the pilot projects are yet to be fully tested. Further developmental assistance is required to achieve greater access to electricity in the rural areas.

8.7 Finally, there is a need for continued strengthening of the regulatory agencies, and the possibility of establishing a multi-sector regulator could be explored further.

9. ACKNOWLEDGEMENTS:

Different people and offices have contributed to the attainment of whatever achievements the Project may have reached during its life time, against all odds. The Project was fortunate to have a highly dedicated team in the Privatization Unit. The Project appointed some extremely knowledgeable external consultants to assist in the implementation of some components of the Project. The Private Sector Advisory Committee provided useful comments, advice and criticism. The Steering Committee for LEC restructuring gave valuable inputs to the IMTF and Sales Advisors' reports, and last but not least the Government of Lesotho strongly supported the Project.

Privatization Unit, Maseru
May 2008

Annex 8. Comments of Co financiers and Other Partners/Stakeholders

Not applicable

Annex 9. List of Supporting Documents

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Annex 10. Privatization Schemes

Original Privatization Scheme (2002)

Strategy elements	SAG observations
The Government will form a new company, LEC (Pty), to which the existing LEC business will be transferred.	The incorporation of LEC as a legal entity under the company legislation was an essential precursor to enable the sale of a shareholding to a strategic investor.
The Government will sell 80 percent of LEC (Pty) Ltd.	There was much debate among stakeholders as to the percentage that should be retained by GoL. SAG argued this needed to be relatively small to encourage investors. GoL eventually increased its planned shareholding to 30%.
LEA will issue licenses to LEC (Pty) Ltd.	In accordance with the regulatory regime.
LEC (Pty) Ltd will operate the National Control Centre (NCC) under a 10-year concession.	Giving the GoL flexibility to change arrangements as the sector develops.
A pre-privatization tariff rise of approximately 33%.	To attract strategic investors we considered that LEC income should broadly match its costs. SAG's assessment was that to do this a tariff increase averaging 33 percent would be required. Corroboration was obtained from independent consultants (Synex) and as a result a staged tariff increase was initiated in 2004.
Revised Power supply agreements (PSA) with the operators of the "Muela hydro power station and with Eskom will be finalized prior to the sale.	Also necessary to attract strategic investors. SAG assisted LEC in negotiating the PSA for "Muela with LHDA and drafted the legal contract that was eventually signed in June 2005
For five years following privatization tariffs will be adjusted for inflation and changes in the top-up prices from Eskom. Thereafter tariffs will be adjusted by LEA, to reflect LEC's actual costs and investments made.	In 2005 LEA officially agreed to the five year moratorium on tariff reviews.
The sale Price will be fixed at 100 million Maloti.	This was based on the financial model analysis. The update to the model in 2004 which included a reduction in the shareholding to be sold reduced the value to 69 million. In the re-tender in 2005 the GoL decided to allow bidders to bid in the

	range 25 to 69 million and NETGroup bid 40 million.
Final selection of the successful bidder will largely be based on the number of connections over a 10-year period which is offered as part of a competitive bid.	In the first Bidding round NETGroup bid 10,000 new connections per year. In the re-tender the GoL fixed the number of new connections per year at 8,000 and selection was changed to a combined measure of highest bid price and highest bid first decade company tax rate. NETGroup bid 40 million Maloti and 35 percent (no concession) tax rate.

Revised privatization Scheme (approved by Cabinet 2004)

Issue	Recommendation	Justification
Length of initial contract	20 years	Long enough to allow investors to make a reasonable return and give them confidence in the PSC process.
Length of subsequent contracts	At least 15 years	Long enough to sustain investor interest.
Stake to be sold	70%	Balances investor need for clear management control and concerns about GoL selling shares to competitors against GoL desire to retain a material Stake.
What will investors bid on	Rollout targets for new connections over 10 years	Aligns investor interests to the GoL's primary objective.
Price - fixed value for LEC	Value fixed at M 99 million, price for 70 percent M 69 million	Realistic, reasonable and responsible based on valuation of LEC given the Tariff Plan and required levels of connections.
Availability of guarantees to investors	Provide bidders with an option to apply for a Partial Risk guarantee ⁵² from the World Bank/IDA.	Increases attractiveness of LEC to investors by reducing perceived risk. GoL would need to pay part or all of the cost of the Letter of Credit needed to back it up.
Use of the proceeds	Will not be any net proceeds from the privatization after costs of financial restructuring and the PRG are taken into account	A shorter tariff transition increases the chances of there being positive proceeds.
"Buyer of last resort" obligation	If no one bids at the re-tender the GoL will need to purchase the shares (at	Can reduce perceived risk to investors.

⁵² A similar scheme is currently being developed for Uganda

	market value)	
Early exit by investor	Allowed if they find an acceptable replacement	GoL is in no worse position, better than keeping an investor that wants to leave.
Reduce rollout targets after privatization	Allowed only for force majeure or GoL/LEA action/inaction that has a negative impact on LEC (e.g., damaging new legislation or a failure to implement an agreed tariff reduction)	Sends the right messages to investors.
Tariff Plan	Implement immediately, issue policy statement, include in documentation	Consistent with “Regulation by contract”.

Source: LEC Sales Advisory Group, Final Report, May 2006, p.18-21

Annex 11. Technical Review of Project Outpouts

AUGUST 17-23, 2008
REVISED SEPTEMBER 25, 2008

Mission Objectives

1. As part of the finalization of the Implementation Completion Report (ICR) of the Lesotho Utilities Sector Reform Project (P070673), a Technical Review of the Project outputs was undertaken. Specifically, the technical review was to compile and review sample data pertaining to the Project components on electrification, aimed at coming to an overall judgment on the Project sustainability.
2. The mission⁵³ reviewed the available relevant documents⁵⁴ to determine the extent of the work carried out under the Project financing and the results achieved viz-a-viz the project design expectations. In reviewing the documents, the mission's main objective was to establish (i) the number of rural electricity connections financed under the Project-potential connections contractually agreed and actually completed and (ii) the cost of rural electricity connections financed under the Project - actual costs of implementation and comparison of unit cost with other similar projects in comparator countries. The mission also undertook a site visit to Roma one of the project areas (LEC Component 1 Phase II).
3. The methodology adopted was mainly a desk review of a sample of contract Bills of Quantities (BoQs) from which the contracted works units and the associated unit costs were derived. The mission also reviewed the Final BoQs, as certified by the supervising consultants, from which the actual quantities of materials supplied and installed (works done) were derived. In addition the mission also reviewed the Component 3 Design Report to ascertain some of the design assumptions with regard to the technology and standards used. The mission also reviewed the recently concluded Electrification Master Plan for Lesotho from which comparator costs of similar works in the region were obtained for the purpose of benchmarking.

Summary of Mission Findings

Table 1 below highlights the contracted scope of works, materials supplied and the actual units installed.

⁵³ The mission comprised of Ganesh Rasagam, Senior Private Sector Dev. Specialist, Paul Baringanire, Power Engineer and Reynold Duncan, Lead Energy Specialist who provided guidance to the mission from Pretoria. Michaela Weber, Private Sector Dev. Specialist and Dileep Wagle, Lead Private Sector Development Specialist provided valuable support and guidance from HQ.

⁵⁴ The mission reviewed (i) the BoQs as included in the Contract documents for Component 1- Part 1c, and Component 3; (ii) Final BoQs for Component 1 -Part 1c and Component 3 as certified by the Project supervising consultants and (iii) Component 3 Project Design Report.

Table 1 Comparison of contracted and Actual works under Component 1, Part 1C and Component 3

Summary of Works					
	Materials			Units Installed	
	Contract	Supplied	% Supplied	Installed	% Installed ⁵⁵
MV Network(KM)	58.54	54.97	93.91	42.11	76.61
Transformers (KVA)	10,711.00	11,159.00	104.18	6,791.00	60.86
LV Network (KM)	82.84	95.24	114.97	83.67	87.86
Service Connections (NO)	3,317	3,389	102.17	2,196	64.80
Average			103.81		72.53

4. Based on the data and information reviewed as highlighted in Table 1 above, the mission notes that about 70 percent of the infrastructure works contracted out (under Component 1, Part 1c and Component 3) were installed by the time the project closed. The main reason attributed to not completing the remaining 30 percent is the low uptake of the initial connections in addition to the late start of Component 3.

5. Only about 65 percent of the contracted number of consumer connections was achieved by the time the Project closed. Although fewer consumers than was envisaged were connected (as per Table 1 above), the capacity of the supply network constructed is adequate to supply an even higher number of consumers. Therefore only drop down service connections will be required when consumers apply for connection. A determination of how many more connections can be added requires assessment of the potential future load growth against the load carrying capacity of the constructed network. As a quick assessment, taking the total KVA installed (about 6800KVA) and assuming an average monthly household consumption of about 200KWh and a load factor of 56%, the installed system capacity would be able to support a total of about 170,000⁵⁶ consumers before exhausting the installed transformer capacity compared to the initial total connections of 2,196 for the two areas reviewed by the mission.

6. The low initial uptake is attributed to the inability of consumers to pay the initial connection fee of M 500 (US\$70) as well as the fact that some of the houses are not ready to receive the connections (i.e. incomplete construction or absence of internal wiring). *The fact that most of the potential consumers could not afford to pay the required connection fee highlights the need for a suitable subsidy mechanism that should have been included in the Project design or adopted by the Government of Lesotho, i.e. the connection policy and connection fee seem to be the barriers to increased uptake and will need to be addressed to ensure Project sustainability.*

⁵⁵ % (Installed/Supplied)

⁵⁶ [6800*8760*0.56/200]

Works Done and Associated Costs

7. Appendix 11-1 provides a summary of the Project works and the associated costs for a sample of contracts as derived from the Contract and the final BoQs. Based on the comparison of BoQs (contractual and final), the final BoQs show that all the materials contracted out were supplied including contract variations (change orders) of about 4 percent of the contract amounts whereas only about 73 percent of the units supplied were installed implying that the beneficiary institutions carry surplus materials. This implies that in future, for additional equivalent works, the project beneficiaries will only incur the cost of installing these materials.

Consumer Connections

8. Table 2 below shows a summary of the project consumer connections; covering the initial expected (design), contracted out and actual for the sample of contracts reviewed. Only about 65 percent of the contracted number of consumer connections was achieved by the time the Project closed. The PAD had envisaged that a total of 8000 consumers would be connected under the LEC Component and an additional 4000 (3000 by grid extension, and 1000 from isolated mini grids) would be connected under the pilots. The factors attributed to the low uptake have already been highlighted in paragraph 6 above.

Table2: Comparison of design, contract and completed consumer connections

	PAD/ Design	Contract	Installed
Component I Part 1c (LEC-Phase 2)	N/A	2620	1534
Component 3- Rural Electrification Pilots			
Sekakhe	750 ⁵⁷	202	230
Dilli-Dilli		275	231
Qhalaqhoe		220	201

⁵⁷ Draft Final Report, *Consulting Services for Qhalaqhoe Grid Extension,, Dilli-Dilli/Sixondo Cross Boarder Grid Extension, Ha Sekake Diesel Generator Isolated Mini-Grid*

Description of Works Done

Sekakhe

9. The scope of works included supply of 5x50KVA diesel generators, associated low voltage network using Aerial Bundled Conductors (ABC) of size 70 and 35mm², 4 cores. The service connections included a service cable (Airdac-10mm²), energy meters and ready made connection boards.

Dilli Dilli

10. Scope of services included extension of 22 KV and 19KV medium voltage (3 phase about 0.3 KM, and SWER-10 KM, using Fox conductor) from the cross boarder ESKOM network; low voltage network using ABC of size 35mm² of cores type 4,3 and 2. The service connections included supply and installation of the associated service cable, energy meter and ready made board.

Qholaqhoe

11. Supply to this area is from the LEC existing grid at 11KV and the Lesotho Highland Development Authority 33KV but converted to 19KV SWER. The low voltage network mainly comprises of ABC size 35mm² of 3 and 2 core types.

LEC Part 1c

12. Works mainly comprised of grid densification within the footprints of the LEC network. Medium voltage works included extension of the 11KV distribution network (3 phase with Fox conductor (ACSR 100mm²), low voltage network using ABC of sizes 70 and 35mm² with cores 4,3 and 2. Service connections comprised mainly of the service cable and a 20A service connection.

13. Based on the costs and the specific units for each works related to the medium voltage, distribution substations, reticulation network (low voltage) and the consumer connections, Table 3 below highlights the average unit cost for each of the areas.

Table 3 Comparison of Average Unit Costs (US\$)

<i>Area</i>	<i>MV Network</i>	<i>Transformers</i>	<i>LV Network</i>	<i>Service Connections</i>
Area	MV Network	Transformers	LV Network	Service Connections
Sekakhe		1,523.25	17,281.58	483.29
Dilli-Dilli	11,668.34	282.69	24,137.45	614.21
Qhalaghoie	13,626.72	290.28	29,475.70	524.29
LEC Part 1c	36,819.53	121.51	25,954.58	312.37
Bench Mark Costs⁵⁸				
33KV,3x100mm² ACSR	30,100			
11KV,3x100mm², ACSR	25,000			
SWER	15,000			
0.4KV 3x50mm²,ABC-AL			23,000	
0.4KV 2x50mm²,ABC-AL			18,000	

14. The unit cost of installation includes cost of materials supplied and installed; and mobilization costs but is exclusive of taxes. The bids for the pilots were received in 2006 whereas the bids for LEC Part 1c were received in 2004. Thus the unit price (see *Appendix 11-1*) for the LEC Part 1c component has been adjusted to 2006 prices⁵⁹.

Comparison of Unit Costs

15. The unit costs in Table 3 above, for the medium and low voltage networks are within range of the region⁶⁰ quoted unit prices (*2006 prices*) of US\$ 30,100 and 15,000 for 3 phase Fox and SWER respectively noting that the medium voltage in Dilli Dilli and Qhalaghoie comprise mainly of SWER, whereas for the LEC part is 3 phase Fox conductor. Though, the low voltage network works used a mixture of conductor sizes (mainly 75 and 35 mm² with various cores ranging from 3 phase (4 core) to single phase (2 core)); the unit cost also lies within the quoted range of US\$23,000 and 18,000 for three and single phase respectively. An extract of comparative costs is included in *Appendix 11-2*.

16. The unit costs for the sample of contracts reviewed under the ICR for the medium and low voltage networks are within range of the region⁶¹ quoted unit prices. The average cost per consumer is about US\$ 550 and US\$300 (*2006 prices*) for the 20A connection inclusive and exclusive of an energy meter and connection board respectively. In August

⁵⁸ Source: COWI (October 2007), National Electrification Master plan for Lesotho, Final Report

⁵⁹ [Unit Cost]*(6.8/6.23)*(1+0.12)]

⁶⁰ COWI, National Electrification Master Plan for Lesotho, Final Report October 2007

⁶¹ COWI, National Electrification Master Plan for Lesotho, Final Report October 2007

2001, the Government of Lesotho approved a connection fee policy where the connection fees for 20 and 60 Amps supply were around US\$267 and US\$470 respectively. About US\$70 and US\$267 would be paid for 20 and 60 Amps respectively, at the time of connection and the remainder over 7 years. Subsequently in 2006, the Government adopted a new connection fee policy with a connection fee of US\$267 for all connections less than 50 meters from the low voltage backbone reticulation network with an initial deposit of US\$70 to be paid at the time of connection and the balance to be paid over 2 years regardless of energy consumption.

Appendix 11-1- Summary of Sample Project costs

Sekakhe

	Contract			Final Boqs	
Materials		Units	Cost (LSL)	Units	Cost (LSL)
Generator	KVA	250	1,840,208.90	250	1,834,535.88
Low Voltage	KM	9.6	606,781.84	10.049	606,369.92
Services Connections	no	202	400,162.20	263	495,581.70
Sub -Total Materials			2,847,152.94		2,936,487.50
Installation					
Generator	KVA	250	298,080.00	250	286,000.00
LV Network	KM	9.6	252,026.00	9.749	284,105.60
Service Connections	no	202	215,028.00	230	147,050.50
Sub Total Installation			1,115,134.00		717,156.10
Supervision			350,000.00		360,000.00
Mobilization			990,000.00		1,020,000.00
Price Contingency			131,578.95		
Grand Total			5,302,286.94		5,033,643.60
	Costs/Unit Installed				
	LSL	US\$			
Generator	11,424.40	1,523.25			
LV Network	129,611.89	17,281.58			
Service Connections	3,624.66	483.29			

Qholagho					
		Contract		Final BoQs	
Materials		Units	Cost (LSL)	Units	Cost
HV Network	KM	12.83	533,150.00	12.432	603,114.00
Transformers	KVA	201	181,302.80	233	198,447.20
Low Voltage	KM	6.3	507,446.51	6.651	597,128.29
Service Connection	no	220	481,879.00	231	413,831.50
Sub Total materials (No VAT)			1,703,778.31		1,812,520.99
Spare Parts					
Installation Services					
HV	KM	12.83	179,479.00	12.132	215,785.00
Low Voltage	KM	6.3	238,755.00	6.051	307,756.00
Distribution Substation	KVA	201	32,500.00	233	36,800.00
Service Connections	no	220	207,416.00	201	139,306.00
Subtotal Installation			658,150.00		699,647.00
Supervision		0	350,000.00		350,000.00
Mobilization			1,005,000.00		1,005,000.00
Total			3,716,928.31		3,867,167.99
Cost per Unit Installed					
		LSL	US\$		
HV		102,200.37	13,626.72		
Low Voltage		199,550.46	29,475.70		
Distribution Substation		2,177.09	290.28		
Service Connections		3,932.17	524.29		

Dilli-Dilli					
	Contract			Final Boqs	
Materials		Units	Cost	Units	Cost
MV Network	KM	12.67	291,667.00	9.501	319,057.00
Transformers	KVA	214	265,682.80	246	275,899.20
LV Network	KM	7.5	542,995.00	7.826	479,521.00
Service Connections	No	275	592,992.50	275	516,684.00
Subtotal			1,693,337.30		1,591,161.20
Installation					
MV Network	KM	12.67	144,621.00	9.35	151,161.00
Transformers	KVA	214	61,795.00	246	47,110.00
LV Network	KM	7.5	223,958.00	7.154	270,609.40
Service Connections	No.	275	300,125.00	231	162,894.50
Subtotal			730,499.00	0	631,774.90
Supervision			350,000.00	0	490,000.00
Mobilization			995,000.00		1,115,000.00
Grand Total			3,768,836.30		3,827,936.10
Cost per Unit Installed					
			LSL	US\$	
MV Network			87,512.59	11,668.34	
Transformers			2,120.18	282.69	
LV Network			181,030.86	24,137.45	
Service Connections			4,606.57	614.21	

LEC Component 1C

LEC Component 1c	Contract			Final BoQs	
Materials		Units	Cost (LSL)	Units	Cost (LSL)
MV Network	KM	33.04	3,372,549.33	33.04	3,373,779.48
Transformers	KVA	10,046.00	3,733,909.83	10,430.00	3,902,857.68
LV Network	KM	59.44	5,264,592.85	70.71	5,264,592.85
Service Connections	no	2,620.00	2,918,788.32	2,620.00	2,298,410.88
Subtotal(Materials)			15,289,840.33		14,839,640.89
Installation					
MV Network	KM	33.04	720,750.00	20.63	468,914.00
Transformers	KVA	10,046.00	187,850.00	6,062.00	127,250.00
LV Network	KM	59.44	1,491,385.00	60.72	1,298,646.05
Service Connections	no	2,620.00	262,000.00	1,534.00	240,584.50
Subtotal Inst			2,661,985.00		2,135,394.55
Mobilization			5,720,768.78		5,720,768.78
Grand Total			23,672,594.11		22,695,804.22
Cost per Unit Installed					
			LSL	US\$	Adjusted
MV Network			187,640.87	30,118.92	36,819.53
Transformers			619.24	99.40	121.51
LV Network			132,270.54	21,231.23	25,954.58
Service Connections			1,591.89	255.52	312.37

Appendix 11-2- Price Levels for Transmission and Distribution⁶²

Appendix 3 – Price Levels for Transmission and Distribution

HV Feeders

Table A3-1 Estimated OHL costs

Feeder type	Rated voltage	Cross section	Installation cost COWI USD/km	Installation cost LEC USD/km
Urban and industrial areas	33 kV	3x100 mm ² ACSR	30,100	50,000
	11 kV	3x100 mm ² ACSR	25,000	25,000
Rural areas	33 kV	3x100 mm ² ACSR	30,100	50,000
		2x100 mm ² ACSR	26,450	43,850
	11 kV	3x100 mm ² ACSR	25,000	25,000
		2x100 mm ² ACSR	21,000	21,000
Rural areas with spread consumer groups	11 kV	3x100 mm ² ACSR	25,000	25,000
		2x100 mm ² ACSR	21,000	21,000
	SWER	1x100 mm ² Cop-perweld	15,000	15,000

LV Feeders

Table A3-3 Estimated OHL prices

Feeder type	Rated voltage	Cross section	Installation cost USD/km
Urban and industrial areas	0.4 kV	3x100 mm ² ABC-AL Underground cable	23,000
Rural areas	0.4 kV	3x50 mm ² ABC-AL	23,000
		2x50 mm ² ABC-AL	18,000
Rural areas with spread consumer groups	0.4 kV	2x50 mm ² ABC-AL	18,000
	SWER	2x50 mm ² ABC-AL	18,000

Source: COWI, National Electrification Master Plan for Lesotho, Final Report, October 2007.

⁶² Based on 2003 indicative Prices from South Africa and updated to 2006 prices due to Approx.12% increase in the price level..
Exchange rate 1US\$=LSL 7.5