Document of
The World Bank

Report No: ICR2671

IMPLEMENTATION COMPLETION AND RESULTS REPORT
(IBRD-48580)

ON A

LOAN

IN THE AMOUNT OF 92 MILLION EURO
(US$ 130.3 MILLION EQUIVALENT)

TO THE

TURKEY ELECTRICITY DISTRIBUTION COMPANY (TEDAS)

WITH THE GUARANTEE OF THE REPUBLIC OF TURKEY

FOR AN

ELECTRICITY DISTRIBUTION REHABILITATION PROJECT

June 26, 2013

Sustainable Development Unit
Turkey Country Department
Europe and Central Asia Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2013)

Currency Unit = Turkish Lira (TL)
1.00 TL = US$ 0.56
US$ 1.00 = TL 1.80

FISCAL YEAR
January 1 – December 31

ABBREVIATIONS AND ACRONYMS

EIB	European International Bank
ERR	Expected Rate of Return
EUAS	Electricity Generating Company
EMRA	Energy Market Regulatory Authority
GDP	Gross Domestic Product
IBRD	International Bank for Reconstruction and Development
ICR	Implementation Completion Report
MENR	Ministry of Energy and Natural Resources
MW	Mega Watts
NPV	Net Present Value
PA	Privatization Administration
PAD	Project Appraisal Document
PDO	Project Development Objective
PPF	Project Preparatory Facility
SCADA	Supervisory Control and Data Acquisition
TEAS	Electricity Generating and Transmission Corporation
TEDAS	Turkish Electricity Distribution Corporation
TEIAS	Turkish Electricity Transmission Company
TEK	Turkish Electricity Authority
TETAS	Turkish Electricity Trading and Contracting Company
TOR	Transfer of Operating Rights
TSS	Share Sale model

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Turkey
Electricity Distribution Rehabilitation Project

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A. Basic Information			
Country:	Turkey	Project Name:	Electricity Distribution Rehabilitation Project
Project ID:	P096801	L/C/TF Number(s):	IBRD-48580
ICR Date:	04/30/2013	ICR Type:	Core ICR
Lending Instrument:	SIL	Borrower:	TURKIYE ELEKTRIK DAGITIM AS (TEDAS)
Original Total Commitment:	USD 269.40M	Disbursed Amount:	USD 116.11M
Revised Amount:	USD 130.30M		
Environmental Category: B			
Implementing Agencies: TEDAS- Turkish Electricity Distribution Corporation			
Cofinanciers and Other External Partners:			

B. Key Dates				
Process	**Date**	**Process**	**Original Date**	**Revised / Actual Date(s)**
Concept Review:	08/03/2005	Effectiveness:	03/21/2008	03/21/2008
Appraisal:	06/21/2006	Restructuring(s):		
Approval:	04/19/2007	Mid-term Review:	12/15/2010	05/13/2011
		Closing:	12/31/2012	12/31/2012

C. Ratings Summary	
C.1 Performance Rating by ICR	
Outcomes:	Unsatisfactory
Risk to Development Outcome:	Low or Negligible
Bank Performance:	Moderately Unsatisfactory
Borrower Performance:	Unsatisfactory

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

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):	No	Quality at Entry (QEA):	None
Problem Project at any time (Yes/No):	Yes	Quality of Supervision (QSA):	None
DO rating before Closing/Inactive status:	Moderately Unsatisfactory		

D. Sector and Theme Codes		
	Original	**Actual**
Sector Code (as % of total Bank financing)		
Transmission and Distribution of Electricity	100	

Theme Code (as % of total Bank financing)		
City-wide Infrastructure and Service Delivery	67	
Infrastructure services for private sector development	33	

E. Bank Staff		
Positions	**At ICR**	**At Approval**
Vice President:	Philippe H. Le Houerou	Shigeo Katsu
Country Director:	Martin Raiser	Ulrich Zachau
Sector Manager:	Ranjit J. Lamech	Peter D. Thomson
Project Team Leader:	Yesim Akcollu	Ranjit J. Lamech
ICR Team Leader:	Fan Zhang	
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F. Results Framework Analysis

Project Development Objectives (from Project Appraisal Document**)**
To help improve the reliability of power supply to consumers in Turkey by supporting the implementation of the electricity distribution network rehabilitation and expansion program.

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 :	Percentage reduction in number & duration of interruptions faced by the consumers in project areas of the 8 regional comp:Ayedas, Uludag, Meram, Gediz, Toroslar, Menderes, Osmangazi, Akdeniz			
Value quantitative or Qualitative)	Ayedas- 10900 intrps - 3710 hrs Uludag- 24500 intrps - 9310 hrs Meram- 9000 intrps - 2890 hrs Gediz - 9800 intrps - 9410 hrs, Toroslar - 11500 intrps - 8502 hrs, Osmangazi 10114 intrps - 7512 hrs, Akdeniz 9216 intrps - 3512 hrs, Tredas 12166 intrps - 8660	Ayedas- 10900 intrps - 3710 hrs Uludag- 24500 intrps - 9310 hrs Meram- 9000 intrps - 2890 hrs Gediz - 9800 intrps - 9410 hrs, Toroslar - 11500 intrps - 8502 hrs, Osmangazi 10114 intrps - 7512 hrs, Akdeniz 9216 intrps - 3512 hrs, Tredas 12166 intrps - 866		(Reduction from baseline) Ayedas - 50%-25%; Uludag - 50%-25%; Meram - 50%-25%; Gediz - 50% - 25%, Toroslar - 50% - 25%, Osmangazi -20% -13%, Akdeniz 25% - 9%, Osmangazi -20% -13%, Akdeniz 25% - 9%
Date achieved	12/31/2006	12/31/2008		12/30/2012
Comments (incl. % achievement)				
Indicator 2 :	New loadserved in the project areas of the 8 regional companies: Ayedas, Uludag, Meram, Gediz, Toroslar, Menderes, Osmangazi, Akdeniz			
Value quantitative or		Ayedas - 25MW Uludag - 10MW		Ayedas - 7MW, Uludag - 15MW,

Qualitative)		Meram - 13.5 MW Gediz - 28 MW, Toroslar - 70 MW, Osmangazi - 16 MW, Akdeniz - 15MW		Meram - 2.5MW, Gediz - 4 MW, Toroslar - 20 MW, Osmangazi - 8MW, Akdeniz - 12 MW
Date achieved		12/31/2008		12/31/2012
Comments (incl. % achievement)				

(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 :	Improvement in collection efficiency in the 8 regional companies funded under the Project			
Value (quantitative or Qualitative)	Ayedas - 97% Uludag - 95% Meram - 76% Gediz - 94% Toroslar - 88% Menderes - 94% Osmangazi - 91% Akdeniz - 92%	Ayedas - 103% Uludag - 102% Meram - 92 Gediz - 105% Toroslar - 100% Osmangazi - 109% Akdeniz - 102%		Ayedas - 99% Uludag - 98% Meram - 81% Gediz - 97% Toroslar - 92% Menderes - 97% Osmangazi - 94%, Akdeniz - 95%
Date achieved	12/31/2006	12/31/2008		12/31/2012
Comments (incl. % achievement)	Menderes was dropped as sub-project			

G. Ratings of Project Performance in ISRs

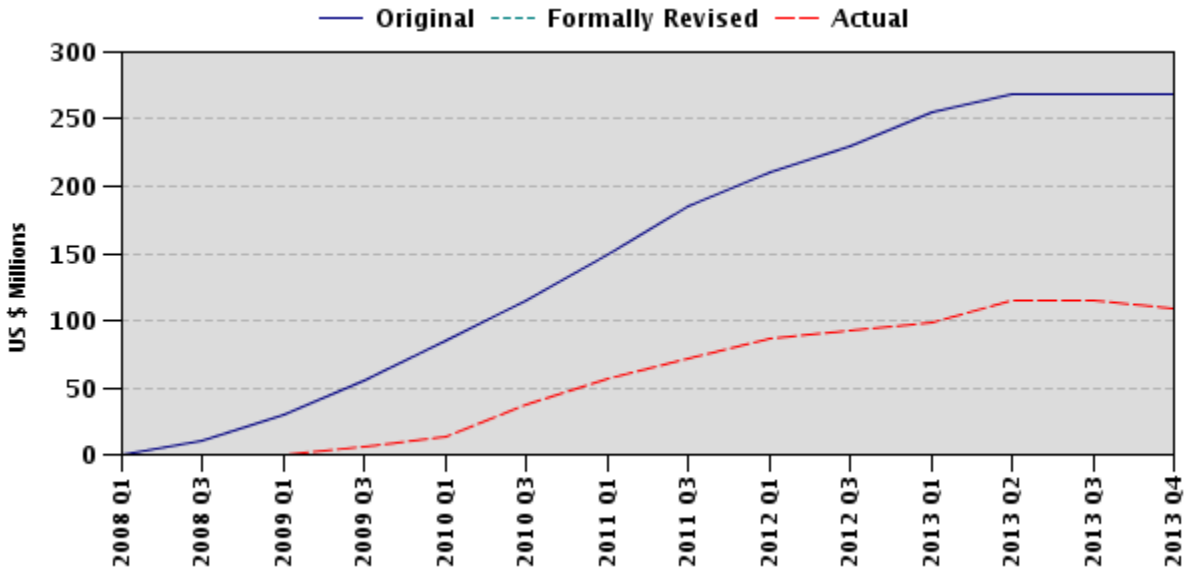
No.	Date ISR Archived	DO	IP	Actual Disbursements (USD millions)
1	06/28/2007	Satisfactory	Satisfactory	0.00
2	03/24/2008	Satisfactory	Satisfactory	0.00
3	02/22/2009	Satisfactory	Satisfactory	6.48
4	03/06/2010	Satisfactory	Satisfactory	36.90
5	12/24/2010	Satisfactory	Moderately Satisfactory	62.86

6	06/27/2011	Moderately Satisfactory	Moderately Satisfactory	79.31
7	04/13/2012	Moderately Unsatisfactory	Moderately Unsatisfactory	92.90
8	12/26/2012	Moderately Unsatisfactory	Moderately Unsatisfactory	115.30

H. Restructuring (if any)

Not Applicable

I. Disbursement Profile



1. Project Context, Development Objectives and Design

1.1 Context at Appraisal

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

Country Background: Until the global financial crisis in 2008, Turkey experienced a long period of rapid growth dating back to the recovery from the 2001 banking crisis. During the period of 2002-2007, economic growth was nearly 7 percent on average; inflation was brought down to single digit levels, and public debt fell to below 40 percent of GDP. Turkey's strong economic growth was largely attributable to sustained stabilization, strong fiscal discipline, and the Government's ambitious structural reform agenda. The prospect of Turkey's European Union accession had remained a key anchor of the ongoing political and economic reforms.

Sector Background: Since 1984, the Turkish Government had embarked on a comprehensive electricity reform program that aimed to establish a competitive electricity market with the goal to increase private investment, improve supply- and demand-side efficiency, and ensure energy supply security in an environmentally sustainable manner.

At project appraisal, important progress had been made in reforming the power sector, with advisory and investment lending support from the Bank. In 1994, the originally vertically-integrated state owned electricity monopoly (TEK) had been split into two state-owned companies: a generation and transmission company (TEAS) and a distribution company (TEDAS). In 2001, the Government passed the Electricity Market Law (Law No. 4628) which inter alia further split TEAS into three companies: the Turkish Electricity Transmission Company (TEIAS), the Turkish Electricity Trading and Contracting Company (TETAS) and the Electricity Generating Company (EUAS). It established the Energy Market Regulatory Authority (EMRA) as an independent regulatory commission which sets tariffs and provides licenses for all energy-related activities. The law also laid the basis for the establishment of a wholesale electricity market and gradual opening of the retail electricity market.

Electricity Distribution Privatization: Privatization of electricity distribution had been on the government's agenda since 1995. The first round of privatization from 1995 until 2002 was, however, poorly structured and failed. In 2004, the issuance of an Electricity Market Strategy Paper by the High Planning Council marked the beginning of a new phase of privatization. Based on principles laid out in the strategy paper, the electricity distribution network was divided into 21 distribution regions based on geographical proximity, managerial structure, energy demand and other technical/financial factors. TEDAS, which owned 20 of the 21 regions, was included in the privatization program in 2004, and a separate distribution company was established in each of these 20 distribution regions. The only distribution region then operated by a partially-private company was Kayseri.

Privatization of distribution companies would be executed using a Transfer of Operating Rights ("TOR") backed Share Sale model ("TSS model"). According to this model, the investor would purchase the shares of a distribution company and hold the operating rights of distribution assets for 30 years together with the obligation to undertake the necessary investments. The ownership of the existing assets and the new assets arising from investments to be carried out by the investor would remain with TEDAS. Under the envisaged market structure, privatized electricity distribution companies would operate as regional monopolies with distribution licenses granted by EMRA.

Rationale for Bank Involvement: At project appraisal in 2006, the electricity distribution network in Turkey was in poor condition and system reliability was declining. Due to government fiscal constraints, more than 50 percent of the investment needs for upgrading and rehabilitating existing distribution capacities were not met during 1994-2003. The failed privatization attempt during 1995-2002 also exacerbated system inefficiencies as the sector remained in limbo with very little attention being given to the physical condition of the system. As a result of the investment shortfall, consumers suffered from increased electricity supply interruptions.

The main rationale for the Bank's engagement in the Turkish electricity distribution sector was to assist TEDAS to implement long-delayed investment in critical areas in order to reduce interruptions in supply, expand capacity, enhance the attractiveness of the distribution business for private investment, and to enable the distribution network to become more compliant with safety regulation. By directly engaging with TEDAS, the Bank also expected to play a policy-support role in the process of reform and privatization of the electricity distribution sector.

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

The Project Appraisal Document (PAD) stated that the project development objective (PDO) was "to help improve the reliability of power supply to consumers in Turkey by supporting the implementation of the electricity distribution network rehabilitation and expansion program."

The key results indicators identified at approval are:

(a) Reduction in number and average duration of annual interruptions in power supply to consumers in the areas served by the eight regional distribution companies where investment projects are funded by the Bank project.

(b) New load served in the project areas of the eight regional distribution companies funded under the Project.

(c) Improvement in collection efficiency in the eight regional distribution companies.

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

Neither the PDO nor the Key Indicators were revised.

1.4 Main Beneficiaries

The main beneficiaries of the project were households and businesses in the project areas whose welfare was to be improved through safer and more reliable electricity supply. The distribution companies including private investors were to be the immediate beneficiaries. The project would improve their revenues by reducing distribution system losses, operation and maintenance costs, and the potential of accidents. The conversion of overhead lines to underground cables would also improve the environment and aesthetic quality of their locations.

1.5 Original Components (*as approved*)

Component1: Distribution Network Rehabilitation and Expansion (Euro 200 million). This component would finance two groups of investment subprojects to support distribution network rehabilitation and expansion in eight distribution regions. These investment projects focus on:

- replacing overhead lines in densely populated areas with underground cables;
- constructing new distribution substations and feeders; and
- eliminating non-standard medium voltage lines.

Component2: Technical Assistance for supervision consultants (Euro 5 million). This component would finance consultants to assist in managing and supervising the implementation of the investment projects. These consultants would:

- provide monitoring support for the implementation of the investments;
- ensure that the project activities are well coordinated between TEDAS, the regional companies and the contractors as well as with other relevant agencies (i.e. municipalities, local infrastructure utilities); and
- ensure that the supplied equipment and civil and installation works are in compliance with the project design and work schedule.

1.6 Revised Components

The subproject grouping was changed during implementation. Some of the subprojects in Group II experienced procurement delays. These subprojects were regrouped into two new groups – Group III and Group IV in order to expedite the procurement process.

1.7 Other significant changes

The project was restructured on December 21, 2012 to reflect:

(1) Partial loan cancellation. On July 27, 2012, TEDAS requested the Bank to cancel Euro 113 million from the Loan which was allocated for financing Groups III and IV subprojects. TEDAS indicated that these subprojects would not be completed before the Project's closing date on December 31, 2012 (even with an acceptable extended closing date) due to persistent implementation delays. The original loan amount was revised down from Euro 205 million to Euro 92 million after the cancellation.

(2) The removal of one subproject due to the transfer of the relevant regional distribution company (Menderes) to the private sector just after the appraisal stage.

(3) The introduction of a disbursement grace period of four months after the loan closing date until April 30, 2013.

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)

Soundness of Background Analysis. The project was technically well prepared. Detailed feasibility studies were developed for each proposed investment. The Bank and the TEDAS design and planning team also visited sites in 15 provinces in 7 distribution regions to assess and improve project scope and design criteria. However, at project preparation, the difficulties of conducting public investment in a sector that was also going through privatization were underestimated. As it turned out, by project closure six out of eight regional distribution companies originally included in the project were privatized; [1] the other two were in the final stage of the tender processes[2]. The transition and uncertainties related to privatization not only affected the morale and capacity of TEDAS but also led to a lack of adequate contract management and project monitoring.

Assessment of the project design. One key decision in project design was that project procurement and implementation should be based on supply-and-installation contracts. It was felt at the time that this approach would minimize the risks related to any lack of coordination and implementation capacity of TEDAS. Supply-and-installation contracts also worked well for projects implemented by another Turkish utility company, i.e. TEIAS. However, in hindsight, the alternative contract method - unit-price contracts - may have worked better for this project for the following two reasons:

(1) Unit-price contract offers more flexibility to adapt to changing conditions in the process of privatization. Under a supply-and-installation arrangement, a contractor is responsible for completing the entire work at a certain cost. The project design has to be clearly specified before work begins. This had caused extensive delays when there was disagreement over technical design of certain parts of the project within TEDAS or between TEDAS and the privatized distribution companies. Whereas, under a unit-price contract, the work is broken into parts and the contractor is paid for each completed unit of work item. So construction plans can be modified and different segments of the work can be started without the need to wait for the entire project design to be finalized.

(2) Unit-price contracting is the common practice of TEDAS. Introducing a new and more complicated contracting method appears to have been counter effective when TEDAS suffered from high staff turnover and capacity constraints during privatization. In fact, TEDAS staff had often confused unit price contracts with supply and installation contracts, the latter of which were established on lump-sum basis. Instead, TEDAS would issue

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[1] Among the six privatized companies, Menderes was transferred to private investors in August 2008, Meram in October 2009, Osmangazi in May 2010 and Uludag in August 2010. Akdeniz and Gediz went through two tendering processes in 2011 and 2012. Their transfer contracts were finalized in November and December 2012, respectively.

[2] These two companies are Ayedas and Toroslar. The tender for privatization of Ayedas and Toroslar started in 2010. The winning bids were determined but the sales collapsed when winning bidders failed to complete their purchase by the deadlines and runners-up decided to opt out. Tenders for the two companies were opened again in 2012 and completed in March 2013.

payments based on the number of work segments completed even though there was no need for final measurement of each item done under supply and installation contracts

Adequacy of government commitment. The Ministry of Energy (MENR) had supported the project in order to improve supply security and support market liberalization. However, since TEDAS was transferred to the Privatization Administration (PA) under Ministry of Finance, MENR had since played a very limited role in the management of TEDAS. For PA, the oversight agency of TEDAS, issues related to energy security, and the cost and reliability of electricity supply were of secondary importance. The main priority and concern of PA was "selling" the regional distribution companies. The commitment of PA to the project was not as strong as it would be under MENR management.

The government was strongly committed to the PDO of improving the reliability of power supply. However, the government's commitment to the PDO was manifested in its support to privatization rather than to project implementation. To attract private investors, the government introduced three substantial tariff increases in 2008 raising the residential tariff by more than 50 percent to reach cost-recovery levels. A cost-based pricing mechanism was also approved to ensure automatic price adjustment to cover future increases in supply costs on a quarterly basis. Additionally, the government had passed legislation and allocated budget to clear municipality arrears for street lighting amounting to US$3.5 billion in 2005. Both cost-based pricing and the clearance of arrears were essential to foster private entry and to strengthen the financial position of TEDAS so as to facilitate network investment. However, in the midst of these advances in the reform agenda, the government and the Bank did not take the strong stance needed to improve project implementation, failing which, suspension and/or cancellation would have been an appropriate course of action.

TEDAS' ownership and commitment to the project was weak from the beginning as the decade-long privatization had already eroded staff morale. Project initiation appears to have been driven largely by MENR, with the support of Treasury and the World Bank. TEDAS perceived the project as supply-driven despite it addressing the sector's fiscal constraints. Over the course of the project, commitment to the project by TEDAS further declined due to (1) disconnect and distance between TEDAS and the regional distribution companies and the confusion over their responsibilities although ownership remained in TEDAS' hands; (2) capacity constraints in procurement and project management due to loss of qualified staff to the private sector; (3) staff concerns of their own fate after privatization; (4) contradiction between Bank's procurement policy and the country's procurement system which caused confusion and dissipation of effort.

Assessment of risks. Two project implementation risks were identified at appraisal. The first concerned the Borrower's inadequate institutional capacity. The risk was rated as *Moderate*. The proposed mitigation measure was to engage qualified consultants in the field to assist TEDAS and the regional companies in project supervision. The second risk related to the Borrower's limited experience with World Bank procurement guidelines. The risk was considered *High* for the procurement of the first group of projects and *Moderate* for subsequent procurements. The risk was proposed to be mitigated through staff training and was expected to become less of an issue when TEDAS gained more exposure to international procurement from working with the Bank and European Investment Bank (EIB) under a parallel project.

Both risks were correctly identified. However, the *Moderate* rating appears to have underestimated the actual risk and the mitigation measures were not adequate. TEDAS was reluctant to work with outside consultants and was not receptive to procurement training. The issues were further exacerbated by the high staff turnover during a period of restructuring and

privatization. Both risks could be traced to the Borrower's lack of ownership and commitment, which was not identified as a risk at appraisal and unlikely to be addressed by technical solutions.

It was not anticipated at project appraisal that land acquisition would be required as most investments would use existing municipal land. However, during project implementation, the Bank team found that private land had been acquired at some project locations (more details in Section 2.4).

Further, the Bank team assumed that municipalities would be willing to issue permits expeditiously given the ultimate benefits of project investments. Contrary to expectations however, navigating municipal approval processes proved to be lengthy and difficult. The Bank team had not considered that the immediate costs to the municipal authorities of issuing permits (e.g., in the form of traffic disruptions, etc.) would outweigh the longer-term benefits. Given that the project covered a large and dispersed geographic area and required authorization of multiple regulatory agencies, these unforeseen factors resulted in significant implementation delays.

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

The project was approved by the Bank's Board on April 19, 2007 and became effective on March 21, 2008. The effectiveness was delayed to include the arrangements required to ensure that the distribution companies would service all their obligations to TEDAS, including power purchase and bill collection. The delay in project effectiveness affected the project's intent to deliver priority investments in a timely manner.

The project subsequently suffered significant implementation delays. As of the last supervision mission in October 2012, only five out of six packages of subprojects under Group I, and one out of five packages under Group II were physically completed. Group III and Group IV were not physically started and were cancelled just four months before project closure. All completed subprojects experienced delays ranging from 7 to 19 months with an average delay of 13 months. Given the originally allocated completion duration of 22 months for each subproject, an average delay of 13 months shows the poor performance of project implementation.

Various factors contributed to the delay of project implementation. They were summarized below.

(1) **TEDAS' weak capacity in contract management and ineffective use of technical assistance.**
TEDAS lacked capacity in managing supply-and-installation contract via competitive tendering processes. There was no clear project scoping, planning and proper design prior to tenders. Contracts were subsequently signed without project specification fully defined. During project implementation, major design modification was introduced and hindered project progress. For example, project design for packages 3 and 4 in Group I were not finalized until 10 and 25 months after contract signature respectively.

TEDAS also lacked the capacity to adequately monitor the progress of the various construction activities. The project management system was weak and fractured between headquarter and the regions. There were very limited oversight on the ground and no intermediate milestones against which the contractor's progress was measured and paid. Monitoring was carried out unsystematically and was based on contractor reported incurred

expenses on labor and material rather than project physical progress. Essentially, TEDAS had no control over cost and time overrun.

The Bank had provided repeating trainings on procurement and contract management. Two local supervision consultants were recruited in early 2009 to help TEDAS in procurement and project implementation. The two consultants were on board for only a short period time. Despite the Bank's strong urging, TEDAS refused to hire other consultants claiming that the company had sufficient control systems and that it was difficult to find consultants of the required quality. Bank's trainings also seemed to be unsuccessful due reportedly to the inadequate engagement and follow-through by the Borrower.

(2) **Privatization reduced staff and imposed difficulties in coordination.**
After TEDAS was divided into 20 regional companies to prepare for privatization, TEDAS operated as a decentralized agency relying on its regional offices to implement the subprojects. Since TEDAS was the implementation agency, TEDAS requested its own technical approaches to be applied, which did not always match those of the regional companies. TEDAS's lingering approval procedure of the final design submitted by the regional companies caused significant delays, sometimes lasting for more than seven months. There was also disagreement on technical parameters between TEDAS and privatized companies due to different projections on consumption growth. It took months to remove the deadlock.

Furthermore, as a result of privatization, TEDAS and its regional companies suffered from discontinuity of managerial staff and shortages of qualified personnel. The transitional period for the privatized regional distribution companies also had lasted longer than expected affecting routine processes and project supervision.

(3) **Delay in obtaining municipal approval and frequent interruption in works on the ground**.
Distribution network rehabilitation requested municipality approval for the location and timing of excavation works. Delay in getting the permits caused delays in all subprojects ranging from 2 to 4 months. In cases where permits were issued, works were frequently interrupted due to intervention of other regulatory agencies (highway department, ministry of culture) on the selection of cable route and distribution center location, concomitant excavation works causing traffic disruptions, compulsory annual winter break for outdoor works and an archaeological finding in Manisa. This impacted project progress with delays of between 49 days in the least to 155 days in the most affected case.

(4) **Contractual disputes held up project progress**. Over the course of the project, copper prices increased beyond the levels allowed under the price escalation clause. Contractors postponed the procurement of cables expecting prices to come down in the immediate future. When price reduction did not materialize, disputes arose between TEDAS and the contractors of two subprojects over monetary compensation. Disputes also arose due to disagreements on assumed unit price as described in section 2.1. Finally, one contractor for a subproject in Group II went bankrupt and asked for the termination of the contract.

On July 27, 2012 TEDAS requested the Bank to cancel Euro 113 million from the loan which was allocated for financing Groups III and IV subprojects as they were unlikely to be completed before loan closing, even if a reasonable extension was granted. In the same letter requesting partial loan cancellation, TEDAS also requested the Bank to consider extending the loan closing date for an extra year in order to enable the completion of Groups I and II subprojects. The Bank

reviewed and confirmed the loan cancellation effective on July 27, 2012. Procurement of Group III subprojects had been initiated, and subsequently cancelled; Group IV subprojects' procurement process had not been started.

The Bank also noted to TEDAS that the Bank would be prepared to consider the loan extension request subject to TEDAS undertaking by November 15, 2012 a set of seven actions which were considered essential for successfully completing the on-going subprojects on time. These involved finalizing outstanding design modifications and implementation schedules, hiring consultants for project monitoring and supervision, finalizing Resettlement Policy Framework due to findings that land has been acquired in project sites and Social Audit Reports, obtaining agreements with municipal authorities for timely issuance of permits and agreement, and completing action plans for compliance with a financial covenant. On November 22, 2012, the Bank informed TEDAS that the project closing date would not be extended because the Borrower did not fully comply with the seven critical actions. The project was closed on December 31, 2012. The remaining balance of Euro 10.7 million in the loan account was subsequently cancelled.

The midterm review conducted by the Bank during May 2011 identified the following factors contributing to the implementation difficulties of the project: (1) lack of firmness of permits issued by the Municipal Authorities and continuous interruptions of the works for which these permits are issued. (2) TEDAS's lack of capacity to monitor and control construction activities. (3) Inconsistencies between the Bank and Turkish procurement criteria caused delays to packages under Groups III and IV. The midterm review's recommendations were: (1) TEDAS should monitor, maintain and process information related to the overall project. The information should be shared across relevant offices within the organization. (2) TEDAS should continue regular dialogue with the municipal authorities about planned works to avoid industrial/community relations issues and to reduce the risk of time overrun. (3) TEDAS should assess training needs for the project management team and present to the Bank a training plan.

Although the recommendations were not technically incorrect, they ignored the fundamental project issue of TEDAS and government ownership and commitment. In doing so, the Bank probably missed an opportunity to tackle the issue head-on by considering suspension and cancelling rather than allowing the project to continue to languish in a state of unsatisfactory performance.

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

Design. There are three key performance indicators to measure the achievement of the PDO: i) reduction in the number and average duration of annual interruptions in power, ii) new load served, and iii) improvement in collection efficiency in the project areas. There is a strong positive link between the first two key performance indicators and the PDO. Lower frequency and duration of annual interruptions indicate higher reliability of electricity supply. The new load served is a clear gauge of network capacity to handle increased electricity demand. However, the causal link between the third performance indicator and the PDO is weak. Although illegal use of electricity can be prevented by replacing overhead lines with underground cables, other factors such as strengthened enforcement after privatization would have a bigger impact on collection efficiency. In addition to measuring project outcome, the M&E system could have included some intermediate output indicators, such as project physical progresses to help the implementing agencies and the Bank focus on key outstanding issues and their timely resolution.

The project M&E would be conducted by TEDAS, using the established functional linkages with EMRA and TEDAS as well as TEDAS regional companies. Field interruption data would be

collected by regional distribution companies, collated at the TEDAS headquarter and submitted to EMRA under the Quality of Supply Communiqué. Utilizing government indicators would help ensure ownership and rationalization of the project M&E. Quarterly progress reports on the project were to be made to the Bank team to help guide implementation.

Implementation. The baseline data and the targets on the performance indicators were clearly defined at appraisal for four distribution regions. The baseline data on supply interruptions for Toroslar, Menderes, Osmangazi, Akdeniz, and the targets of the first two performance indicators for these four regions were not available at the beginning of the project. Despite some delays, TEDAS regional distribution companies had regularly provided data concerning the results indicators. However, the interruption performance indicators were monitored and recorded manually. An automatic monitoring system was initially proposed to be installed in the project area to facilitate automatic recording but was not materialized. After project closure in December 2012, TEDAS failed to provide performance indicator data for 2012.

On the monitoring of project outputs, TEDAS had not always been able to provide timely Quarterly Progress Reports that accurately reflect the implementation progress and outstanding issues. M&E reporting on project progress was ad hoc and primarily undertaken in response to the discipline imposed by the Bank through its regular semi-annual reviews of the project.

Utilization. TEDAS lacked a project monitoring and control system to enable a consistent and systematic update of ongoing project activities. This had compromised TEDAS' ability to maintain focus on key outstanding issues affecting project progress and their timely resolution. Although TEDAS' own M&E system remained weak, M&E arrangements beyond the project implementation period is likely to be sustainable. This is because all eight distribution companies have been privatized. The privatized companies are obligated to demonstrate the achievement of pre-defined performance criteria such as loss reduction, improved collection efficiency, and improved customer service. These privatized companies are expected to maintain close monitoring on these performance indicators and use the M&E system as a management tool.

2.4 Safeguard and Fiduciary Compliance

(focusing on issues and their resolution, as applicable)

Environmental safeguards. Compliance with environmental safeguards was satisfactory. The project was rated as "Category B" and did not have any significant environmental safeguard-related impacts. A sample EMP was prepared and disclosed before appraisal. The sample EMP was used as the basis for all EMPs of the subprojects which were cleared by the Bank and included in the bidding documents. Compliance of the EMP by the construction contracts were monitored by the regional distribution companies and reported in the Quarterly Progress Reports. Sub-projects were determined to be generally compliant with environmental safeguards requirements.

Social Safeguards. The social safeguards' rating was moderately unsatisfactory. At appraisal, the project did not envisage land acquisition because it was believed that project activities would be carried out within existing rights of way and publicly-owned property. In addition, when the project was prepared, the Bank's approach was not to preemptively trigger the operational policy on Involuntary Resettlement (OP4.12) in the absence of an identified need to acquire private land. During implementation, however, the Bank team found that private land had been acquired at some project locations, without the prior knowledge of the Bank.

Even though TEDAS had acquired land in accordance with Turkish regulation, TEDAS was requested to carry out "social audits" of the land acquisition that had taken place, and to develop a Resettlement Policy Framework (RPF) to serve as a guide for any future land acquisition so that potentially harmful impact of land acquisition would be managed in a manner consistent with Bank policies. OP4.12 would then be triggered once the RPF was completed. However, it took TEDAS much longer to finalize the RPF, which was one of the conditions for loan extension. As the decision not to extend the project was made, the draft RPF submitted by TEDAS was no longer relevant and was not finalized. OP 4.12 was not triggered for this project retroactively.

TEDAS had submitted the draft Social Audit Reports for the sub-projects in three of the seven distribution regions involved. These draft reports indicate that there was no relocation of households; the amounts of land acquired were small and the landowners were compensated adequately and promptly as per the national legislation requirements, and that no remedial measures are required. TEDAS did not provide the Social Audit Reports for the other four distribution regions. The Bank team undertook (as part of ICR preparation) its own assessment of the social impacts of the land acquisition that was carried out under the project. In the sample of project sites that the Bank visited, it was discovered that small land acquisition had taken place and TEDAS had followed national law to provide market value-based compensation.

Procurement: Issues related with procurement had been a constant source of interaction between the Bank and TEDAS throughout the project. Considerable technical support was required on the part of the Bank to better acquaint TEDAS staff with the concept of supply-and-install contracts. While deficiencies were corrected in due course under Groups I and II subprojects, the procurement procedures and process TEDAS followed for Group III was not in accordance with the procurement procedures set forth in the Loan Agreement, nor the World Bank's Procurement Guidelines. TEDAS did not arrange the bid opening at the deadline for receipt of the bids or promptly thereafter. Instead, the bids were opened publicly four days later. Such delayed bid opening was not in accordance with either the Bank's or Turkish national procurement guidelines. TEDAS also rejected all bids without the prior approval of the Bank. The procurement experience reflected TEDAS' considerable lack of familiarity with competitive bidding process and inadequate capacity in procurement management.

Another procurement issue dealt with the conflicts between the eligibility principles to be applied in Bank-financed procurements and Turkish public procurement law. A prospective bidder for Groups III and IV packages was debarred under Turkish law, but not under the Bank's procurement guidelines. The bidder was therefore eligible to bid for the tender under the Bank's guidelines but not under the Turkish procedures. The Bank advised TEDAS to inform explicitly the prospective bidder that it could participate in the bidding process as long as it was not debarred by the Bank. TEDAS was reluctant to follow the Bank's direction and the prospective bidder did not participate in the bidding process.

Financial management: Financial management is rated generally satisfactory. TEDAS recorded project transactions and prepared corresponding reports on a timely basis. The auditors issued a clean audit opinion on project financial statements.

2.5 Post-completion Operation/Next Phase

No significant post-completion operational issues are anticipated. Three out of seven distribution companies included in the project have been transferred to private investors (Uludag, Meram, Osmangazi). The winning bids have been determined for the four distribution companies still

remaining with TEDAS. Two of them are to be transferred by June 2013 (Gediz and Akdeniz), with the other two to be transferred by fall 2013 (Ayedas and Toroslar). The private investors will manage all TEDAS-owned distribution assets, including investment made under the project. As to be discussed in more detail in Section 4, investors will have strong incentives to properly manage and maintain these assets. They are also obligated to implement annual investment on network expansion and upgrade based on projections on consumption growth and predetermined efficiency improvement targets set by EMRA. Implementation of these investments (i.e. investment amount and form) will be monitored through investment control and quality measurement mechanisms set up by the Regulator in collaboration with the distribution companies. The private sector is expected to play a leading role in Turkey's electricity distribution sector. No follow-up project and investment from the government are envisaged.

3. Assessment of Outcomes

3.1 Relevance of Objectives, Design and Implementation

The PDO was highly relevant to government strategies at appraisal and remains highly relevant to current national priorities in Turkey. The project supported the government's priorities to secure sufficient and reliable energy to a growing economy. It also supported the government's national electricity strategy wherein the third pillar is to attract enhanced private sector investment. Improvement in the distribution asset would enhance the attractiveness of the beneficiary regions for their privatization. The PDO is also consistent with current Country Partnership Strategy for FY12-15 wherein the first pillar is to enhance competitiveness and employment and the third pillar is to deepen sustainable development. By ensuring reliable energy supply to end-users, the project contributes to improved investment climate and business environment, and improved supply of reliable and efficient energy.

The project design remains relevant. The project remained relevant because improvement made under the project helped enhance the reliability of the distribution region. The public investment by TEDAS under the project were also notified to the prospective bidders in advance of privatization and therefore enhanced the attractiveness of the privatizations regions (i.e. the new distribution assets created by the project would be viewed as part of the privatization package). In regions where privatization took long, the project also filled the financing gap for rehabilitating distribution networks.

3.2 Achievement of Project Development Objectives

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

Despite the low physical progress of subprojects in four of the seven regions (less than 60%) under Groups I and II and the cancellation of Groups III and IV, most of the original targets of the outcome indicators were overachieved by December 31, 2011 as summarized in Table 1.

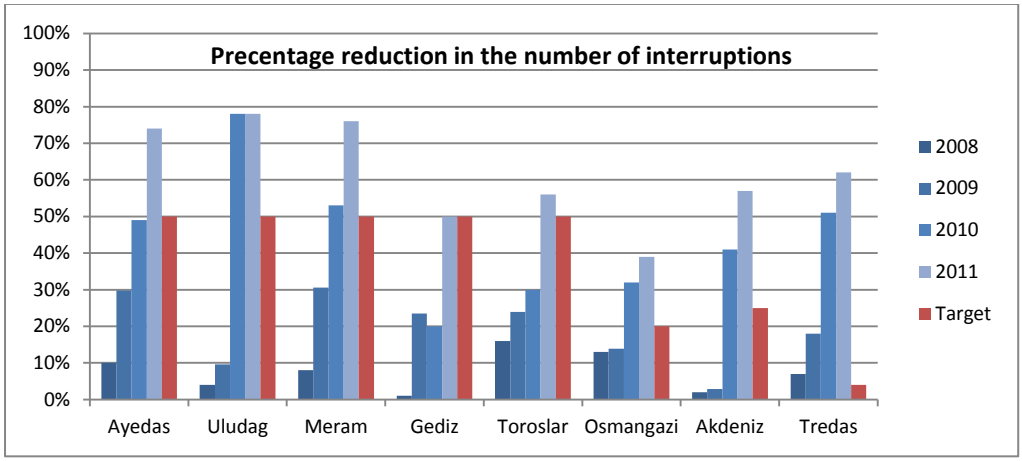
Table 1 Project Targets and Actual Achievement as of December 2011

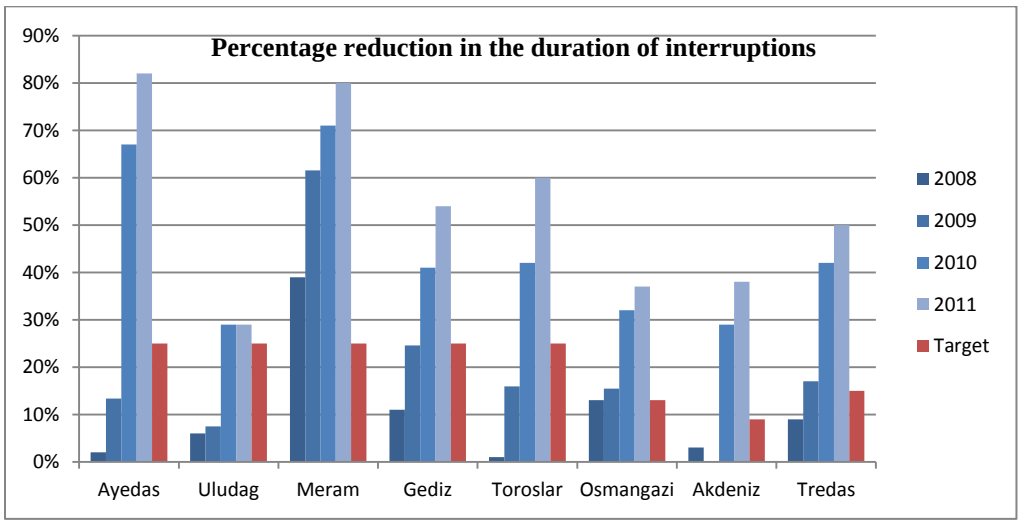
	New Load Served (MW)		Reduction in number of interruptions from baseline (%)		Reduction in duration of interruptions from baseline (%)		Project physical progress (%)*
Region	**Target**	**Achieved**	**Target**	**Achieved**	**Target**	**Achieved**	**Dec. 2011**
Ayedas	7	25	50	74	25	82	91
Uludag	15	10	50	78	25	29	30
Meram	2.5	13.5	50	76	25	80	100
Gediz	4	28	50	50	25	54	95
Toroslar	20	70	50	56	25	60	61
Osmangazi	8	16	20	39	13	37	50
Akdeniz	12	15	25	57	9	38	50

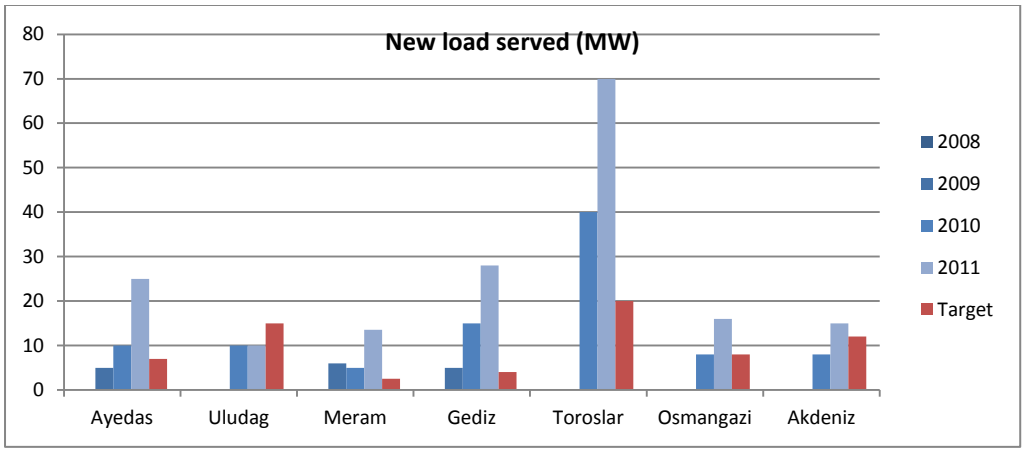
Sources: PAD, TEDAS report
Note: * only reflecting the physical progress of Groups I and II subprojects in corresponding regions.

In fact most of the targets were achieved in 2010 when disbursement ratio was even lower. Figure 1 shows the values of performance indicators over time.

Figure 1 Project Targets and Actual Achievement 2008-2011







Sources: PAD, TEDAS report.
Note: The last bar of each clustered columns indicates the target for the project areas in the corresponding region.

The project involves substation upgrading, converting overhead lines to underground cables, and replacements and extension of medium and low voltage lines, all of which contribute to the reduction of accidents and interruptions and increase in load served. However, there was a disconnection between project disbursement ratio and achievement towards targets. There are three possible reasons:

(1) Project targets on new load served were likely to be under ambitious.

(2) The quality of supply interruption data could be poor given that these results were monitored and recorded manually.

(3) Factors outside the project contributed to the achievement of the targets on reduction of interruptions. For example, the achievement may be partially attributable to the parallel European Investment Bank (EIB) financed distribution rehabilitation project. The EIB project involved the rehabilitation and expansion of mostly urban low and medium voltage electricity distribution networks in 20 of the 21 regional distribution areas in Turkey as well as the implementation of specialized distribution network operating tools (SCADA) in Ankara and Konya (Meram region) areas. The project cost was approximately Euro 650 million (with EIB financing of Euro 325 million). Implementation started in 2006 and will continue until 2014. Given that the EIB project could have covered the same project areas, reduction in supply interruptions could potentially be attributable to the parallel EIB project. On the other hand, the preparation of the EIB project had largely benefited from the Bank's efforts in project appraisal and in-depth work in the wider sector issues. EIB also liaised closely with the Bank during project implementation.

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)

At appraisal, the economic rates of return (ERRs) of subprojects in four distribution regions were estimated to be in the range of 11 to 27 percent, with a combined ERR of 19 percent. The economic net present value (NPV) ranges between TL 2.6 to 40.6 million, with a combined NPV of TL 91 million. Actual ERRs and NPVs cannot be calculated at project completion as TEDAS declined to provide information on project actual costs and actual benefits related to reduction in unserved energy, reduction in operating expenditures, reduction in accidents, and reduction in losses. However, the persistent delays in project implementation may have resulted in what most

likely are substantial forgone economic and financial benefits. For example, using the same assumptions about project costs and benefits as those adopted at appraisal, but taking into account a two- year delay in implementation, the estimated ERRs reduce to 8 to 19 percent, with a combined value of 13 percent. The NPV reduces to between TL -8.49 and 20.6 million, with a total NPV of TL 91 million. These simulation results suggest that a two-year implementation delay would lead to a 32 percent reduction in project ERR and 55 percent reduction in project NPV.

3.4 Justification of Overall Outcome Rating

(combining relevance, achievement of PDOs, and efficiency)

The project was and remains relevant to the Government priorities. The project overachieved all but one performance targets. However, to what extent the Bank's intervention had contributed to the achievement of the project outcome is debatable. The project has also been inefficient in the use of its resources due to persistent delays. Thus, **the overall project outcome rating is unsatisfactory**.

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

Poverty Impacts: The project has made positive impact on the reliability of electricity supply in project areas, and therefore could have contributed to the reduction of poverty by improving the productivity of households and enhancing the delivery of social services. Additionally, all subprojects provided employment opportunities for the local communities.

(b) Institutional Change/Strengthening

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

The Bank provided extensive professional training and awareness-building on environmental and social issues which enabled TEDAS to improve its capacity in safeguards compliance, bringing benefits beyond the project.

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

In reducing technical losses from the distribution network, the project would improve the overall efficiency of the power system and thereby reduce emissions of greenhouse gas emissions from fossil-fuel fired generating plants.

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

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

NA.

4. Assessment of Risk to Development Outcome

The risk to the development outcome is rated low. At the time of ICR, Turkey's distribution privatization program, launched in 2008, has been completed. All distribution companies are expected to be operated by private investors by fall 2013. Under the privatization approach, the private investors are obligated to make a predefined level of investment in the network, and to demonstrate the achievement of predefined performance criteria such as loss reduction, improved

collection efficiency and improved customer service. The tariff levels approved by EMRA will factor in the targeted performance criteria and investments required by the distribution companies. In addition to earning an allowed rate of return, distribution companies can create substantial profits by outperforming the predetermined performance targets. Such system provides sufficient incentive for adequate maintenance and expansion of network capacity and the improvement of service quality. In a broader prospective, Turkey's transparent regulatory framework and liberal market structure ensure the development outcomes will be sustained.

5. Assessment of Bank and Borrower Performance

(relating to design, implementation and outcome issues)

5.1 Bank Performance Rating

(a) Bank Performance in Ensuring Quality at Entry

(i.e., performance through lending phase)

The Bank team exercised due diligence in establishing the technical foundation of the project. Preparation of the project spanned almost one year and included extensive review of feasibility studies conducted through Bank technical specialists and an experienced local consultant. The review was supplemented by intensive field visits by the Bank team to several of the provinces where investment projects were proposed to be financed by the loan. It was apparent that efforts were made to ensure support and consensus from TEDAS on the scope of the project. Efforts were also made to put in place onlending arrangements to ensure the continuation of contract management through privatization. Overall, project objectives and components were well-defined and consistent with national priorities and CPS objectives.

The project preparation did not anticipate unforeseen land acquisition in some of the project areas and involuntary resettlement as a risk. However, when the project was prepared, the Bank's practice also did not request the operational policy on Involuntary Resettlement to be preemptively triggered in the absence of an identified need to acquire private land.

In retrospect, it is evident that the Bank may not have read the recalcitrance of TEDAS general management in advancing the project preparation in a timely manner as a sign of indifference/lack of commitment to implementation. On the other hand, it would seem that the Bank's preparation efforts and the project technical design were comprehensive and done with due diligence. **Bank performance in ensuring quality at entry is rated moderately satisfactory.**

(b) Quality of Supervision

(including of fiduciary and safeguards policies)

The Bank team provided close and responsive supervision of the project. Comprehensive Bank review missions, including field visits were conducted twice a year. There were also regular follow-up reviews since the third quarter of 2011 as the project was managed from the Ankara Office. The Bank's technical, procurement, financial and safeguards staff throughout the project provided a very high level of input in ensuring that fiduciary requirements were met and in providing training for TEDAS staff both in headquarters and in regional distribution companies. Supervision missions correctly identified and documented the implementation issues, and the Aide Memoires shared with government highlighted the appropriate remedial responses that should be taken.

The Bank was however constrained from taking a stronger stance against TEDAS' mishandling of procurement, delay in finalizing the RPF and repeated reneging of the remedial action. The Bank instead attempted to work through the issues in an effort to maintain the overall client relationship. It was not until the end of the project that the Bank drew a line so that further non-compliance with mutually agreed actions would trigger a call to cancel the loan. Despite the effort the Bank team made to turn around the project, the Bank missed opportunities to engage the Government to address the ownership issues head-on and early, particularly at midterm review, or to cancel the loan earlier when facing waning commitment and ownership from TEDAS. **Bank performance in quality of supervision is rated moderately unsatisfactory.**

(c) Justification of Rating for Overall Bank Performance

Given moderately satisfactory ratings for quality at entry, and moderately unsatisfactory rating for quality of supervision, the **overall Bank performance is rated moderately unsatisfactory**.

5.2 Borrower Performance
(a) Government Performance

Although the government's commitment to the PDO was strong, the government had not fully committed to the implementation of the project. The government underestimated the effects of understaffing, the loss of motivation and the reduction in technical and managerial capacity of TEDAS throughout the protracted privatization process since 1995. While pushing for privatization, the government could have taken actions to address TEDAS' concern of understaffing and capacity constraint. Even though the government was aware of TEDAS' lack of ownership, there was lack of a higher level intervention from the oversight agency to trigger a more active response from TEDAS to address implementation problems. **Overall, the government performance was moderately unsatisfactory.**

(b) Implementing Agency or Agencies Performance

As noted in previous sections, a number of TEDAS deficiencies spanning both capacities to monitor project implementation and capacities to address operational bottlenecks had contributed to the unsatisfactory outcome of the project. There was a lack of ownership and support of the project from TEDAS. Although TEDAS was ostensibly communicating and providing guidance to the regional distribution companies, it was evident from meeting with regional distribution companies that there was no adequate follow-through by TEDAS. When things were clearly not progressing well, TEDAS refused to get technical assistance. TEDAS also failed to follow Bank operational guidelines during the course of the project. For example, TEDAS extended the contractual project completion dates for as much as 705 days without requesting no objection from the Bank. TEDAS also failed to follow the Bank's guidelines on social safeguards and procurement. **The performance of the implementing agency was unsatisfactory.**

(c) Justification of Rating for Overall Borrower Performance

Given moderately unsatisfactory ratings for Government performance and unsatisfactory rating for implementation agency performance, **the overall borrower performance was rated unsatisfactory**.

6. Lessons Learned

(both project-specific and of wide general application)

The lessons emerged from the implementation of this project are:

1. **Higher-level and more coordinated communications between the Bank and Government**, bringing together key government stakeholders earlier on in the project when issues arose, could have helped to more effectively and transparently address project issues. During implementation, when the implementing agency, TEDAS, was unresponsive to Bank recommendations and actions communicated to them during missions and by aide-memoires, the Bank should have convened a forum involving key higher-level Government stakeholders, particularly the Treasury, for resolving these issues. This would have given opportunity to the Government to collectively and in a coordinated manner reassess their commitment to the project rather than allowing project issues to languish over a protracted period, which ultimately sent mixed signals to the implementing agency, particularly in the context of the late-breaking decision not to extend the project closing date.

2. Supply-and-installation contract shifts most of the responsibilities of project implementation to the contractors, therefore reduces the complexity of contract management. **However, in order to effectively implement this type of contract, the following conditions are necessary:** (1) the implementation agency can carry out project design in a sufficient and timely manner, (2) the borrower can assume the risks associated with the design and engineering practice, (3) project scope and design are clearly defined before both parties enter into the contract, and (4) the implementation agency has sufficient capacity to monitor project progress on the ground.

3. **Flexibility in Bank's procurement policies.** A prospective bidder was debarred under Turkish law, but not under the Bank's procurement guidelines. This conflict between Bank's and Turkish procurement rule caused confusion regarding whether the prospective bidder is eligible to bid and contributed to delays in project implementation. Difficulties like this are not unique to this project. Currently, an extensive effort is being carried out by the Bank to consult with external stakeholders in order to improve the Bank's procurement policies. One area for consideration is how to reconcile differences between Bank's procurement rules and the country's procurement system so as to improve efficiency.

4. **Social safeguards measures as part of urban infrastructure project**. An urban infrastructure project in a large geographic area is likely to involve land acquisition or affect users of public lands. Even when land acquisition is not envisioned and OP4.12 is not triggered, a Resettlement Policy Framework is recommended to minimize risks of potential negative effectives under involuntary resettlement.

7. Comments on Issues Raised by Borrower/Implementing Agencies/Partners
(a) Borrower/implementing agencies

(b) Cofinanciers

(c) Other partners and stakeholders
(e.g. NGOs/private sector/civil society)

Annex 1. Project Costs and Financing

(a) Project Cost by Component (in Euro Million)

Components	Appraisal Estimate (euro millions)	Actual/Latest Estimate (euro millions)	Percentage of Appraisal
Distribution Network Rehabilitation and Expansion (for Group I and Group II Sub-Projects)	172	80.08	45.2%
Technical Assistance for Supervision Consultants	5	0.03	0.6%
Total Baseline Cost	177	80.11	46.6%
Physical Contingencies	14	--	
Price Contingencies	14	--	
Total Project Costs			
Front-end fee	---	0.51	
Total Financing Required	205	80.62	39.3%

(b) Financing

Source of Funds	Appraisal Estimate (USD millions)	Revised Amount	Actual/Latest Estimate (USD millions)	Percentage of Appraisal
Borrower	75.00	75	75	100%
International Bank for Reconstruction and Development	266.9	119.8	105.9	39.7%
Total	341.9	194.8	180.9	52.9%

Annex 2. Outputs by Component

Individual subprojects financed under the loan:

Sub-project area	Regional Distribution Company	Contract price in millions (euro)	Disbursement amount in millions (euro)	Percent Disbursed (as of October 2012)	Physical Project Progress (as of October 2012)
Completed Sub-projects					
Group 1					
Package 1: Alasehir (Manisa)	GEDIZ	4.40	3.42	84.27%	100%
Package 2: Manisa V (Merkez)	GEDIZ	7.99	6.95	91.04%	100%
Package 3: Kony II and Nigde II	MERAM	7.72	6.74	94.72%	100%
Package 4: Nevsehir II	MERAM	5.23	4.76	94.34%	100%
Package 5: IAY VI and Umraniye II	AYEDAS	12.6	10.22	87.25%	100%
Total (Group 1)		**46.85**	**39.69**		
Group 2					
Package 2: Hatay III	Toroslar	4.96	4.90	98.40%	100%
Total (Group 2)		**4.96**	**4.90**		
Incomplete Sub-projects					
Group 1					
Package 6: IAY VII	AYEDAS	8.91	7.60	93.20%	90.38%
Group 2					
Package 1: Adana VIII	Toroslar	11.91	8.50	66.63%	84.66%
Package 3: Gaziantep XIV	Toroslar	6.49	4.06	66.05%	43.82%
Package 4: Bursa III	Uludag	10.84	7.94	70.68%	65.53%
Package 5: Isparta VI, Isparta VII, Afyon III	Akdeniz & Osmangazi	9.72	6.60	66.08%	52.24%
Total(Group 2)		**43.92**	**32.00**		

Annex 3. Economic and Financial Analysis

(including assumptions in the analysis)

At appraisal, the economic rates of return (ERRs) of subprojects in four distribution regions were estimated to be in the range of 11 to 27 percent, with a combined ERR of 19 percent. The economic net present value (NPV) ranges between TL 2.6 to 40.6 million, with a combined NPV of TL 91 million at 10 percent discount rate. Five types of economic benefits produced by the rehabilitation and expansion of electricity distribution network were considered in the analysis:

- Reduction in unserved energy
- Growth in peak capacity and revenue
- Reduction in accidents
- Reduction in operation expenditures
- Reduction in technical losses

Actual ERRs and NPVs cannot be calculated at project completion as TEDAS declined to provide information on project actual costs and actual benefits. To estimate the forgone efficiency due to project implementation delays, the ERR and NPV of the subprojects in the four distribution regions were simulated using the same assumptions on project costs and benefits as those adopted at appraisal, but taking into account a two-year delay in implementation. The results are summarized in the following table.

Economic Rates of Return (ERRs) and Project Economic Net Present Values (NPVs)

Region	ERR (At appraisal)	ERR (Simulated)	NPV (At appraisal TL million)	NPV (Simulated TL million)
Ayedas	11%	8%	2.23	-8.49
Uludag	21%	14%	38.82	18.83
Gediz	27%	19%	32.18	20.61
Meram	22%	15%	17.79	9.94
Combined total	19%	13%	91	40.9

These simulation results suggest that a two-year delay would lead to a 32 percent reduction in project ERR and 55 percent reduction in project NPV.

Annex 4. Bank Lending and Implementation Support/Supervision Processes

(a) Task Team members

Names	Title	Unit	Responsibility/ Specialty
Lending			
Bernard Baratz	Consultant/Environmental Safeguards Specialist	EASCS	
Ranjit J. Lamech	Sector Manager	ECSEG	
James Sayle Moose	Consultant	ECSEG	
Stan Peabody	Consultant/Social Safeguards Specialist	ECSSD	
Sameer Shukla	Senior Energy Specialist	SEGES	
Sunil Kumar Khosla	Lead Energy Specialist	ECSEG	
Husam Mohamed Beides	Lead Energy Specialist	MNSEG	
Yukari Tsuchiya	Temporary	ECSEG	
Supervision/ICR			
Yesim Akcollu	Sr. Energy Specialist	ECSEG	
Ayse Seda Aroymak	Sr. Financial Management Specialist	ECSO3	
John Bulter	Lead Social Development Specialist	ECSOQ	
Shinya Nishimura	Sr. Energy Specialist	ECSEG	
Sergio Gonzales	Sr. Power Engineer	ECSEG	
Salih Kemal Kalyoncu	Sr. Procurement Specialist	ECSO2	
Selma Karaman	Program Assistant	ECCU6	
Iftikhar Khalil	Consultant	ECSEG	
Zeynep Lalik	Sr. Financial Management Specialist	ECSO3	
Chukwudi H. Okafor	Senior Social Development Specialist	AFTCS	
Zeynep Durnev Darendeliler	Social Development Specialist	ECSSO	
Kishore Nadkarni	Consultant	ECSEG	
Ahmet Gurhan Ozdora	Consultant	ECSPF	
Sameer Shukla	Senior Energy Specialist	SEGES	
Yukari Tsuchiya	Temporary	ECSEG	
Fan Zhang	Energy Economist	ECSEG	
Regina Nesiama	Sr. Program Assistant	ECSSD	

(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		
FY06	45.69	231.95
FY07	42.67	207.83
FY08	13.2	89.83

Total:	**101.56**	**529.64**
Supervision/ICR		
FY09	19.13	112.98
FY10	20.11	93.22
FY11	30.26	153.37
FY12	20.57	93.25
FY13	21.34	98.25
Total:	**111.41**	**551.06**

Annex 5. Beneficiary Survey Results
(if any)

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

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

OPINIONS ON IMPLEMENTATION COMPLETION AND RESULT REPORT TO BE GIVEN TO TURKISH ELECTRICITY DISTRIBUTION COMPANY (TEDAŞ) FOR ELECTRICITY DISTRIBUTION REHABILITATION WITH THE GUARANTEE OF THE REPUBLIC OF TURKEY (IBRD-48580)

1. C. We do not agree with the rating and evaluations in the C. Rating Summary Section.

2. 1.1 In the Context at Appraisal section, the first paragraph under the heading Rationale for Bank Involvement should be changed as;

"In 2006 during the preliminary design phase of the project there were some problems ın the electricity distribution network in Turkey and it was necessary to improve the system reliability. Due to financial constraints of the State it has not been possible to make more than 50% of the investment requirement needed for increasing the distribution capacity and rehabilitation between 1994-2003. Due to the failed privatization attempts between 1995-2002, the system had more shortcomings because of not recruiting new personnel for those who are retired or who left and also problems in allocation of funds. As a result of not being able to make investments the consumers suffered increasing power cut-offs."

and that the last sentence in the sub-title Soundness of Background Analysis of the Project Preparation, Design and Quality at Entry section, namely: "*that there was insufficient level of project monitoring and tender management"* is an incorrect and groundless view and that it needed to be taken out of the report,

3. 2.1 In the subtitle on Assessment of the Project Design in the section on Project Preparation, Design and Quality at Entry;

Our Company has held many meetings with the World Bank delegation many times before signing of the Loan Agreement and preparation of the Tender documents and in these meetings the procedures and principles of our Company related to implementation of the agreement and construction of the facility have been explained in detail. Our Company is holding approximately 2000 tenders related to new electricity distribution facilities and rehabilitation of the old ones in one year and spending approximately 1.000.000.000 TL in total. All these tenders are based on unit prices. Our Company never held a tender for the facilities with a supply and installation contract; moreover we do not have such type of a contract. In any case the whole sector knows and accepts that the work of constructing a fully equipped power distribution facility cannot be realized with a supply and installation type of contract.

In the meetings held between the Bank and TEDAŞ before the projects have been incorporated in the loan contract, detailed explanations have been made that the sections of the work could change in type and amount due to changes in the scope of the required work and possible project amendments the scope of the work and also structural

problems that could be encountered in the realization of the project and their solutions. As a result of all these evaluations the tender and procurement document has been prepared with instructions by the Bank.

Moreover, it was stated by the Bank after finalization of all tenders that there was a separate contract with unit prices.

When we examine the tender documents we see that there is no provision anywhere stating that the contractor is obliged to complete the whole work for a specific price and there are provisions in many parts stating that unit prices will be applied (amendments in the facilities, price charts, payment conditions and methods, etc.).

Therefore the responsibility and the error made in basing the project procurement and implementation on supply and installation contracts lies completely with the World Bank. The World Bank is again responsible for all problems arising from this. TEDAŞ has made and implemented the tenders as unit price contracts. Therefore this is not something that we could frequently come up with.

TEDAŞ and the contractors went to court regarding the disputes on the new unit prices however this has not caused any delay in the implementation of the project. We can therefore understand that the World Bank does not have command of even the basic issues regarding the project implementation, and makes wrong judgments and reporting,

4. 2.1 While starting the project it was necessary that the related departments should evaluate the Assessment of Risks subtitle in the section on Project Preparation, Design and Quality at Entry,

5. We do not agree with the statement in the second paragraph of 2.2 Implementation section, namely: *"When we take into account the 22 months of completion period given for each sub project in the beginning there is an average delay of 13 months and this shows a poor performance in the implementation of the project."* It has been explained to the Bank many times that the delays were inevitable in electricity distribution network construction works,

6. Regarding the 2.2 Implementation section;

a. (1) Subtitle on TEDAS' weak capacity in contract management and inefficient use of technical support;

Examination and feasibility evaluation of the projects in the scope of the loan were realized with the participation of the Bank. The general scope or purpose of the work has not been changed during the implementation of the project. We do not agree with the assessment that a clear project scope, planning and project design were not made in the beginning related to these projects. Because within the scope of the tender and procurement document prepared by the Bank related to these projects there is a provision for "preparing an implementation project" for amendments in the project and work items.

Amendments in these projects have not affected the construction so far as much as indicated.

Distribution of the tasks, authorities and responsibilities of TEDAŞ and the related distribution companies for the execution of the projects has been determined based on the experiences TEDAŞ has since long years in similar projects. This determination has not caused any problems or gaps in the execution of the project, the problems encountered were structural problems that came up in the implementation of these projects.

It was demanded that two special consultants (engineers) should be hired who would deliver weekly reports in order to monitor the project and support the implementation programs and in the meeting held with the World Bank on 15.10.2012 it was stated that consultancy service was received several times in the past, that most of the work was completed, that in the remaining period consultants would not be of use taking into account the tender and adaptation periods, that our Company had sufficient control organization and did not need any consultants and that there were problems in finding consultants with the qualifications they requested. The World Bank delegation on the other hand has indicated that they wanted consultants in order to report and that they would check about a quicker tender and help us about finding the consultants and do the necessary research but there has not been any advance in the past period. According to the decision taken in the meetings held with the World Bank delegation it was indicated that our Company would work with the consultant to be offered by the World Bank. Despite all these, it is not possible for us to understand that it is being stated that "no progress or documentation is present on the issues of hiring consultants for project monitoring and supervision" in the letter from the World Bank dated 04.12.2012.

The Bank has not realized any trainings and our Company has given the information related to the progress of the project. It was understood that this did not contribute to overcoming the problems affecting the performance of the projects mentioned in the report.

b. (2) subtitle that privatization reduced staff and imposed difficulties in the coordination;

There were some partial differences of opinion in the technical evaluation between TEDAŞ and the distribution companies in the projects under the contract but this has not affected the essentials of the work significantly. The time spent for the approval of the projects has not stopped the progress of the work completely.

c. (3) Subtitle on delay in obtaining municipal approvals and frequent interruption in works on the ground;

Rehabilitation of electricity distribution network is infrastructure work and it is not possible to complete it in the date planned. Some structural problems in the field application of the project are the investments by other infrastructure companies, the permissions to be obtained from other public institutions (Municipality, Highway Authority, Telecom, State Hydraulic Works, Natural gas, Museums Directorate, etc.),

problems in expropriations, not being able to solve these problems in a short time and delays caused by 3rd persons. TEDAŞ is not able to interfere with the decisions of the mentioned institutions.

d. (4) subtitle that contractual disputes held up project progress;

The contract covers how the effect of changes in the prices of cupper on the contract will be evaluated. The undertaking parties enter the works/projects knowing the contract conditions. In the works within the scope of the 1. and 2. groups change in the price of cupper did not cause any dispute between the parties of the contract. However we believe that the requirement for supply from a single supplier which did not exist in the tender document for 1. group but included in the tender document for the 2. Group of sub-projects was a significant cause of dispute between the undertaking parties.

e. In relation to the last part of the section;

In various meetings and correspondences at different dates for time extension for the loan closing date, information has been given on the progress of the project and the work undertaken for the procedures requested by the bank. In this scope in all the technical meetings and field visits realized with the Bank, in the Aide Memorie and Progress Reports prepared for 3 month periods it has been reported and the justifications for the time extension were accepted by the Bank and for some facilities for which the contract period has expired with reasons explained in detail in our various letters time extension was granted for the facilities and approved by the Bank.

Our Company has requested from the Bank on 27.07.2012 (approximately 5 months before the closing date) that the closing date should be extended and the Bank with its response to this request dated 27.09.2012 (two months after the request by our Company) has notified its conditions for extending the closing date.

The content of the above mentioned requests has been discussed with the Bank in the meeting held on 15.10.2012 and it was requested that the conditions and the procedures requested by the Bank should be completed until 15.11.2012. Although no written notification has been made on this issue the Bank has indicated in its letter dated 22.11.2012 that these conditions were not fulfilled until 15.11.2012 and that conditions were not met to complete the on-going work and that the loan would be closed as of 31.12.2012.

The procedures requested in the letter from the Bank dated 27.09.2012 were sent to the Bank on 27.11.2012 (only 12 days after the date indicated verbally and 35 days before the ending of the closing date).

The Bank has with its letter dated 04.12.2012 concluded that the necessary conditions were not fulfilled for the successful completion of the project despite our letter dated 27.11.2012 and indicated that our project extension request was not approved and that the project would be closed at the planned closing date which is 31.12.2012.

Important part of the requests made by the Bank on 27.09.2012 has been fulfilled and it has been indicated that the others which would take time would also be fulfilled. Nevertheless although there are sufficient justifications the Bank has unilaterally chosen not to extend the closing date.

Besides no funds were allocated for the projects which were started to be constructed with the loan received from the Bank from the equity capital except for asphalt excavation fee and taxes by our Company and there is no funding planning for the following years. Not extending of the closing date unilaterally by the Bank before the completion of the projects has had adverse effects on the investment and fund planning of our Company.

7. 2.3 Monitoring and Evaluation, Design, Implementation and Utilization section;

a. In the 2. Paragraph of the Implementation sub-title; regarding monitoring of the project outputs there has been some delays in some three monthly progress reports however no false information has been given. The Bank has to prove that there are some information which are false in these reports,

b. In the utilization sub-title; TEDAŞ is checking and monitoring the ongoing projects together with the related departments. Therefore there is a field control organization for each project. This organization is carrying out the necessary monitoring and control careful enough. We do not in any way agree with the opinions on project monitoring and control system.

8. 2.4 Safeguards and Fiduciary Compliance;

a. In the social safeguards sub-title; in the scope of electricity distribution facilities construction works new ones are allocated for the existing substation or distribution buildings and where necessary public ones are allocated or private property is expropriated. This is how the case was in the project meetings. Therefore expropriation of private properties is not something that has come up later on. The Bank made a mistake about this in the initial project meetings but it was not the case that TEDAŞ shared any insufficient information.

b. With the Group 3 tender implementation mentioned here the issue of prohibited companies should be evaluated by the related Department,

9. 5.1 Bank Performance Rating section;

a. (a) under the Bank Performance in Ensuring Quality at Entry subtitle, the Bank was insufficiently informed on and could not judge many issues such as knowing TEDAŞ, contract type determination, places under private property in the beginning,

b. (b) In the Administrative Quality subtitle, the Bank has not given any training either to the TEDAŞ personnel or the regional distribution companies and gave no input to the

project at any level and did not determine the problems related to the implementation and did not shed any light on the measures that should be taken indicated in the Aide Memoires,

10. In the 5.2. Borrower Performance section ,subtitle (b) Implementing Agency or Agencies Performance ,as indicated above, the findings are insufficient, false and incorrect,

11. Besides;
a. Many issues notified in order to obtain no-objection from the Bank (change of supplier, giving time extension to the contractor, budget estimate amendment, etc.) were responded after a very long time and this has caused delays,

b. Due to reasons explained in detail in our letter dated 11.12.2012 and numbered 7176 the fact that the Bank is unilaterally choosing not to extend the closing date is a violation of the agreement made and the international law, that since the closing date was not extended TEDAŞ had to allocate funds and that had significant losses,

This is our opinion.

As a result;

1. There were problems due to 1 year of delay in the effectiveness of the project,

2. The Bank was not able to make the necessary findings in the meetings held in the starting of the project related to TEDAŞ and this caused some troubles and problems,

3. The Bank had misinstructed TEDAŞ in the tender documents,

4. The Bank had caused many legal and administrative problems for TEDAŞ as a result of the contract that is misinstructed,

5. The electricity distribution facilities construction works have not been contracted out with the application project and therefore new unit prices came up and the cost estimates increased or decreased and this was recognized by the Bank during the implementation,

6. In the excavation works constituting a large section of the construction works of the electricity distribution facilities there were some problems and delays in the permissions obtained from the Municipality and the Highway Authority and that this also caused some delays and time extensions,

7. The number of personnel had decreased due to privatization but that this was not to an extent that could prevent the implementation of the project,

8. There was a dispute regarding the project implementation with the distribution company solely connected and this caused time extension for the project but did not hold the project,

9. Consultancy service was received at various times after making a tender according to the tender procedures of the Bank but no tender was held after the last consultant left but again it was mentioned to the Bank that consultancy service would be received in case the notice period was extended,

10. The distribution company is responsible to control and monitor the work and there were no problems related to this control and monitoring,

11. The problems with the contractor related to the new unit price analysis did not cause any delay,

12. Information was given in the meetings held and the field investigations carried out with the Bank related to the execution of the contract and no training was given by the Bank in any way,

13. There have been delays in the submission of the progress reports but no wrong submission was made,

14. The Bank has made a mistake about not foreseeing any land acquisition from private property in the scope of the project,

15. The rating by the Bank was partial and a mistake,

16. The Bank was very slow and passive regarding giving the necessary no-objection,

17. Various problems were faced due to the delay in the realization of the project, the situation the project is in, that time extension was granted to the contractors due to force major and because the closing date was not extended unilaterally by the Bank,

All these issues should be taken into account and we believe that therefore the evaluations in the report are defective, unfounded and unjust. Again the criteria for the performance evaluation of the report are not known and therefore its systematic and criteria could not be evaluated and we believe that different evaluation results can be obtained using different criteria.

Annex 8. Comments of Cofinanciers and Other Partners/Stakeholders

Annex 9. List of Supporting Documents

TURKEY

PROVINCE CAPITALS*
NATIONAL CAPITAL
RIVERS
MAIN ROADS
RAILROADS
PROVINCE BOUNDARIES*
INTERNATIONAL BOUNDARIES

*Province names are the same as their capitals.

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