



Report and Recommendation of the President to the Board of Directors

Project Number: 46933
August 2013

Proposed Loans Akmola Electricity Distribution Company and Central-Asian Electric Power Corporation Akmola Electricity Distribution Network Modernization and Expansion Project (Kazakhstan)

This is an abbreviated version of the document approved by ADB's Board of Directors that excludes information that is subject to exceptions to disclosure set forth in ADB's Public Communication Policy 2011.

Asian Development Bank

CURRENCY EQUIVALENTS

(as of 30 June 2013)

Currency unit – tenge (T)

T1.00 = \$0.0066

\$1.00 = T151.80

ABBREVIATIONS

ADB	–	Asian Development Bank
AEDC	–	Akmola Electricity Distribution Company
CAEPCO	–	Central-Asian Electric Power Corporation
CAPEC	–	Central-Asian Power Energy Company
EBRD	–	European Bank for Reconstruction and Development
ESMS	–	environmental and social management system
km	–	kilometer
kV	–	kilovolt

NOTES

- (i) The fiscal year (FY) of the Akmola Electricity Distribution Company ends on 31 December. FY before a calendar year denotes the year in which the fiscal year ends, e.g., FY2012 ends on 31 December 2012.
- (ii) In this report, "\$" refers to US dollars.

Vice-President	L. Venkatachalam, Private Sector and Cofinancing Operations
Director General	J. Yamagata, Officer-in-Charge, Private Sector Operations Department (PSOD)
Director	M. Barrow, Infrastructure Finance Division 1, PSOD
Team leader	T. Koike, Principal Investment Specialist, PSOD
Team members	E. David, Associate Investment Officer, PSOD C. Gin, Principal Counsel, Office of the General Counsel J. Leusink, Investment Specialist, PSOD M. Manabat, Senior Investment Officer, PSOD A. Porras, Safeguards Officer, PSOD M. Principe, Senior Social Development Officer, PSOD B. Quang, Safeguards Specialist, PSOD A. Seissebayev, Investment Officer, PSOD M. Tsuji, Principal Safeguards Specialist, PSOD J. Ventura, Senior Investment Officer, PSOD

In preparing any country program or strategy, financing any project, or by making any designation of or reference to a particular territory or geographic area in this document, the Asian Development Bank does not intend to make any judgments as to the legal or other status of any territory or area.

CONTENTS

	Page
PROJECT AT A GLANCE	
I. THE PROPOSAL	1
II. THE PROJECT	1
A. Project Identification and Description	1
B. Development Impact, Outcome, and Outputs	3
C. Alignment with ADB Strategy and Operations	4
D. Implementation Arrangements	4
III. THE PROPOSED ADB ASSISTANCE	5
A. The Assistance	5
B. Value Added by ADB Assistance	5
IV. POLICY COMPLIANCE	5
A. Safeguards and Social Dimensions	5
B. Anticorruption Policy and Anti-Money-Laundering Policies	6
C. Investment Limitations	7
D. Assurances	7
V. RECOMMENDATION	7
APPENDIX	
1. Design and Monitoring Framework	8

PROJECT AT A GLANCE

1. Project Name: Akmola Electricity Distribution Network Modernization and Expansion Project			
2. Project Number: 46933			
3. Country: Kazakhstan		4. Department/Division: Private Sector Operations Department Infrastructure Finance Division 1	
5. Sector Classification:			
Sectors	Primary	Subsectors	
Energy	✓	Electricity transmission and distribution	
6. Thematic Classification:			
Themes	Primary	Subthemes	
Economic growth		Promoting economic growth efficiency and enabling business environment	
Private sector development	✓	Private sector investment	
6a. Climate Change Impact:		6b. Gender Mainstreaming:	
Adaptation		Gender equity theme	
Mitigation		Effective gender mainstreaming	
Not applicable	✓	Some gender elements	
		No gender element	✓
7. Targeting Classification:		8. Location Impact:	
General Intervention	Targeted Intervention		
	Geographic dimensions of inclusive growth	Millennium development goals	Income poverty at household level
✓			
		Rural	High
		Urban	High
		National	Medium
		Regional	Low
9. Safeguard Categorization:			
	Environment	B	
	Involuntary resettlement	B	
	Indigenous peoples	C	
10. ADB Financing:			
Sovereign/Nonsovereign	Modality	Source	Amount (\$ million)
Nonsovereign	Loan	OCR	40.0
11. Cofinancing:		Not applicable	
12. Counterpart Financing:		Not Applicable	
13. Aid Effectiveness:		Not Applicable	

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on proposed loans of up to \$40,000,000 to the Akmola Electricity Distribution Company (AEDC) and the Central-Asian Electric Power Corporation (CAEPCO) for the Akmola Electricity Distribution Network Modernization and Expansion Project in Kazakhstan.¹

II. THE PROJECT

A. Project Identification and Description

1. Project Identification

2. Most of the energy sector network assets in Kazakhstan, including those of AEDC, were built in the 1960s and 1970s, and significant investments are needed to maintain and upgrade the outdated and dilapidated distribution network. Although the electrification rate in Kazakhstan is very high (97%), the system losses are high (estimated to be 16% nationally) and inventory management of spare parts is becoming an increasing problem as the assets become more outdated. Investments in the system are falling short in the face of increasing demand, which has been growing by approximately 6% annually since 2000. Given the harsh climate, particularly during winter, it is of critical and immediate importance to upgrade the old transmission and distribution networks to avoid system breakdowns which could be harmful to the economy and even fatal to end users.

3. In late 2011, the Private Sector Operations Department of the Asian Development Bank (ADB) explored investment opportunities in potential high development impact areas, mainly electricity transmission and distribution. Among several private sector power groups, CAEPCO was identified as the largest privately owned, vertically integrated power utility in Kazakhstan with a good financial and technical track record. In early 2012, CAEPCO applied for ADB's assistance to fund its expansion plans in relation to AEDC. From those initial discussions, ADB's project team came to believe that ADB participation would bring significant developmental benefits. The loan would also be ADB's first in the energy sector in Kazakhstan.

2. Project Design

4. AEDC's capital investment program for 2013–2015 will expand, augment, and modernize the company's distribution network under the new ownership of CAEPCO.

5. AEDC aims to expand its network capacity to improve reliability of electricity supply, and to maintain low electricity losses by investing in new and reconstructed distribution lines and modernized substations. The aim of the project is to increase reliable power supply to existing residential and commercial clients (indirectly through sales companies) and particularly increase connection to 35,000 additional households by 2020 in rural areas of Akmola province and Astana. This will be achieved by (i) reconstructing, repairing, and adding new capacity to the fixed assets, such as substations and distribution lines; (ii) upgrading software systems for power accounting; and (iii) acquiring modern measuring devices. The project also aims to (i) enable increased equipment load to reduce energy losses in networks of different voltage, (ii) reduce direct expenses related to maintenance of equipment, (iii) add capacity in areas with

¹ The design and monitoring framework is in Appendix 1.

intensive infrastructure development, and (iv) create modern automated measurement and technological monitoring systems to improve operational and administrative efficiency.

3. The Borrowers and Sponsor

6. AEDC became a joint stock company on 8 March 2004 but has been in operation in different legal forms since 1961. It is the local electricity distribution company principally operating within the boundaries of Akmola province and in a small area of Astana, which borders Akmola province to the south. The company, through its electricity sales subsidiary, serves 116,000 end users in 14 districts of Akmola province and 181,000 in Astana and Stepnogorsk. These end users are serviced through 25 direct power purchasers in the electricity distribution, agriculture, industry, and residential sectors. The total length of AEDC's electricity distribution network is 21,500 kilometers (km) with voltages from 0.4 kilovolts (kV) to 110 kV, approximately 2,700 transformers, and 3,500 substations. Since 2003, the company has never recorded an operating loss, and its current technical loss is approximately 4%,² which is one of the lowest in Kazakhstan.

7. Most of AEDC's assets are old and have been largely depreciated. No major investment plan has been approved, and the tariff has been kept low for wider social reasons. However, the government acknowledged that tariffs need to increase to allow power companies to invest more to improve reliability and efficiency. Against this background, AEDC's tariff was increased by 82.5% in 2011 and 14.7% in 2013.

8. CAEPCO covers generation, transmission, and distribution of heat and electricity in Pavlodar, North Kazakhstan province, and in Astana. CAEPCO, through its subsidiaries, owns four thermal power plants with a total installed generating capacity of 974 megawatts and heating generation capacity of 2.871 gigacalories per hour. It also owns 51,349 km of electricity distribution networks and 986 km of district heating networks. The company generates approximately 7% of the total electricity in Kazakhstan and serves around 692,000 electricity end users and 401,000 heat consumers.

9. CAEPCO's controlling shareholder (62.12%) is Central-Asian Power Energy Company (CAPEC), a private holding company incorporated and registered in Kazakhstan with an A rating from Expert RA Kazakhstan.³ The other shareholders of CAEPCO are the European Bank for Reconstruction and Development (EBRD) (24.99%) and the Islamic Infrastructure Fund (12.89%), which was cofounded by ADB and the Islamic Development Bank. CAPEC is owned by several well-known local businesspeople. Most of its revenues are derived from the energy sector, i.e., CAEPCO and AEDC, while it holds minority stakes in a few finance sector companies. In FY2012, CAPEC's total assets were approximately \$1.2 billion, total revenue was \$562.0 million, and net profit from operations was \$43.5 million, an increase from the \$30.3 million in FY2011 because of higher revenues from electricity transmission and sales.

10. While CAEPCO is a vertically integrated power utility company with several distribution subsidiaries, approximately 83% of its revenues come from generation of electricity (60%) and heat (23%), and the remainder comes from transmission and distribution services. In June 2013, Fitch assigned a rating of BB- to CAEPCO, reflecting strengths based on its vertical integration, relatively benign regulatory regime, access to cheap coal, and good regional market

² This corresponds to the loss of approximately 118 gigawatt-hours of electricity in 2012.

³ Expert RA is the largest rating agency in Russia and operates in Russia and the Commonwealth of Independent States. The rating scale ranks from A++ (Absolute highest creditworthiness) to D (Default or Bankruptcy), where A represents high creditworthiness.

position, as well as a concern over potential pressure on its cash flow from the planned investment program to modernize its aging assets. CAEPCO's recent financial performance is presented in Table 1.

Table 1: Central-Asian Electric Power Corporation Key Financials
(\$ million)

Item	2010	2011	2012
Profit and Loss			
Revenue	373.6	439.1	494.2
EBITDA	68.3	80.6	91.6
Balance Sheet			
Total assets	638.1	849.7	920.5
Total liabilities	276.2	339.1	384.9
Current liabilities	105.2	110.2	122.6
Long-term liabilities	110.3	138.7	163.2
Equity	361.9	510.5	535.6

EBITDA = earnings before interest, tax, depreciation, and amortization.

Source: Central-Asian Electric Power Corporation.

B. Development Impact, Outcome, and Outputs

1. Impact

11. The project's anticipated impact includes (i) accelerated upgrading of the transmission and distribution network in order to supply sufficient electricity to promote sustainable economic growth, and (ii) promotion of private sector investment in the electricity distribution sector by demonstrating improved performance of a provincial power utility under professional private sector ownership. The project is expected to be complemented by more capital investment in the country's transmission and distribution network to expand capacity and improve efficiency and reliability.

2. Outcome

12. An expanded and more efficient power supply is expected by AEDC in Akmola province and Astana through improved distribution infrastructure. Additional power will be supplied and network failure and technical loss caused by obsolete infrastructure will be prevented through adequate upgrading and replacement as well as repair and maintenance of the facilities.

3. Outputs

13. Successful implementation of the project will rehabilitate and augment 19 substations, 60.0 km of 110 kV lines, 142.8 km of 10 kV lines, and 52.0 km of 0.4 kV lines. Further, it will add one new substation, 141 km of 35 kV lines, 102 km of 110 kV lines, and two transformers to AEDC's distribution network, as well as additional metering devices to improve the automated system for commercial power balancing and settlements.

C. Alignment with ADB Strategy and Operations

1. Consistency with Strategy 2020 and Country Strategy

14. The project is consistent with ADB's Strategy 2020 which promotes private sector investment in the infrastructure sector.⁴ Strategy 2020 also outlines the need for ADB to help address growing energy demand and assist in expanding infrastructure for energy supply.

15. The country partnership strategy, 2012–2016 for Kazakhstan seeks to increase ADB's involvement in the energy sector, with the aim of modernizing the country's aging energy infrastructure.⁵ It notes specifically that ADB will support replacement of obsolete energy infrastructure and technologies, and upgrade the transmission network, mainly through private sector or subsovereign modalities. The project is therefore fully aligned with the country partnership strategy.

2. Consistency with Sector Strategy and Relevant ADB Operations

16. The project is also in line with ADB's Energy Policy which highlights energy efficiency improvements in transmission and distribution systems.⁶ Under the policy, it is proposed that ADB will continue to support installation of modern transmissions systems to transmit electricity efficiently from generation facilities to consumers, including upgrading existing systems to reduce technical losses and enabling competition when open access is permitted by law.

D. Implementation Arrangements

17. Table 2 summarizes the implementation arrangements.

Table 2: Summary of Implementation Arrangements

Aspects	Arrangements
Regulatory framework	AEDC and CAEPCO operate under the general regulatory framework applicable to power utility companies in Kazakhstan. The tariffs are set by the Agency for Regulation of Natural Monopoly.
Management	AEDC's board of directors consists of three members. CAPEC nominates two members (including the chair) and one member is an independent director. AEDC's management board consists of five members. They are experienced and technically competent professionals. CAEPCO's board of directors consists of eight members. CAPEC nominates three members (including the chair), the EBRD and IIF nominate one each, and three are independent directors. CAEPCO's management is led by Yerkyan Amirkhanov, president of CAEPCO.
Implementation period	2013–2015
AEDC's investment plan	AEDC will follow a national procurement rule for natural monopoly in Kazakhstan. Competitive tendering procedure is required for purchases of T3 million or more. CAEPCO will provide support to the tendering process.
Revenue structure	AEDC's supply contracts are effective for 1 year and renewed annually. AEDC's revenue is based on the approved tariff with actual supply volume.

⁴ ADB. 2008. *Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020*. Manila.

⁵ ADB. 2012. *Country Partnership Strategy: Kazakhstan, 2012–2016*. Manila.

⁶ ADB. 2009. *Energy Policy*. Manila.

Aspects	Arrangements
	CAEPCO is a holding company of three subsidiaries, and its revenue is based on the dividends from these subsidiaries.
Major cost structure	AEDC's main cost items are purchased electricity and wages.
Operation and maintenance	Operation and maintenance are carried out by AEDC's own staff. Expansions and repairs are partly outsourced to subcontractors.
Performance monitoring	Key performance indicators will be reported by AEDC and CAEPCO and monitored by ADB.

ADB = Asian Development Bank, AEDC = Akmola Electricity Distribution Company, CAEPCO = Central-Asian Electric Power Corporation, CAPEC = Central-Asian Power Energy Company, EBRD = European Bank for Reconstruction and Development, IIF = Islamic Infrastructure Fund.

Source: Asian Development Bank.

III. THE PROPOSED ADB ASSISTANCE

A. The Assistance

18. The proposed loans of up to \$40 million will be provided to AEDC and CAEPCO from ADB's ordinary capital resources..

B. Value Added by ADB Assistance

19. The proposed transaction merits ADB's assistance for the following reasons:
- (i) It will support modernization and expansion of the aging energy infrastructure which is critically important in Kazakhstan, reduce the risk of network failure, and improve the reliability of electricity supply to people in Akmola province including rural households and the strategically important capital region.
 - (ii) It will enhance the financial and operational stability of AEDC and support private sector development by demonstrating an example of efficiency improvement and capacity expansion under professional private sector ownership.
 - (iii) It will provide long-term financing which is required for successful development of infrastructure but which is not easily available from the local financial market nor the international financial market in the present market environment.
 - (iv) It will complement and increase the likelihood of the success of the equity investment by the Islamic Infrastructure Fund in CAEPCO.
 - (v) ADB will contribute to strengthening the policies of CAEPCO and AEDC on environment, social, health, and safety through establishment and monitoring implementation of an environmental and social management system (ESMS).

IV. POLICY COMPLIANCE

A. Safeguards and Social Dimensions

20. The project is classified category B for environment, which is likely to have low to medium environmental impacts and risks during construction and operations. This transaction is considered as general corporate finance in terms of ADB's Safeguard Policy Statement (2009), therefore a corporate audit of current operations of CAEPCO and AEDC and implementation of AEDC's proposed investment has been conducted. The audit finds no outstanding compliance issues related to existing operations. The current environmental assessment practice including management of environmental, health, and safety activities is based on national requirements and the environmental and social action plan was established with support of the EBRD. The environmental and social action plan covers measures to implement, manage, and monitor

project impacts and risks to ensure compliance with local regulation and appropriate budget allocation for monitoring activities. Information disclosure, consultations with stakeholders, and submission of monitoring reports are conducted as required by Kazakhstan's legislation. The current institutional capacity and commitment of CAEPCO and AEDC to manage environmental, health and safety impacts are deemed adequate. However, procedures for screening and categorizing environmental impacts and risks need to be integrated into the new ESMS to comply with ADB policy requirements.

21. The project is classified category B for involuntary resettlement and category C for indigenous peoples. The audit finds that the land used by AEDC is either owned by the company or leased from the state for 49 years in accordance with Kazakhstan's legislation. The investment program activities are envisaged to be carried out on land already owned and leased by AEDC. The requirement for new land acquisition or lease for the replacement of the aerial distribution lines with underground cable in Astana city can be ascertained only after the technical design is finalized. If land acquisition and involuntary resettlement will occur, the required procedures for screening and preparing a resettlement plan should be developed in accordance with Safeguard Requirements 2: Involuntary Resettlement of the Safeguard Policy Statement. The audit also noted that there are 88 ethnic groups residing in Akmola province, where Kazakhs are the largest permanent population followed by Russians, Ukrainians, Tatars, and Belorussians, among others. All nationalities are fully integrated into Kazakh society, and therefore they are not considered indigenous peoples as per the Safeguard Policy Statement. Moreover, procedures and policy for screening and categorization of social risks and impacts, land acquisition, resettlement, and indigenous peoples need to be integrated into the new ESMS to comply with the Safeguard Policy Statement.

22. CAEPCO's commitment to establish a new ESMS and apply it to AEDC as a condition of ADB's investment was noted. CAEPCO and AEDC also committed to engage adequate environmental and social staff and arrange periodic corporate and site training for them. The companies will strengthen their procedures for meaningful consultation and information disclosure, grievance redress, monitoring, and reporting. The companies will also prepare audit reports and corrective action plans or environmental and social plans for existing facilities. CAEPCO and AEDC will submit semi-annual reports to ADB on the implementation status of the ESMS, including implementation of corrective actions indicated in the audit report.

23. **Other social dimensions.** The project is classified as having no gender elements. It will benefit the population of Akmola through a more reliable supply of electricity. Moreover, the nature of employment during construction activities does not lead to many opportunities for women. Employment opportunities at the operations phase will be open to interested and qualified men and women. ADB will ensure that the ESMS includes appropriate arrangements requiring CAEPCO and AEDC (including contractors) to comply with national labor laws and take measures to conform to internationally recognized core labor standards for the ADB-financed portion of the project, in compliance with ADB's Social Protection Strategy.⁷

B. Anticorruption Policy and Anti-Money-Laundering Policies

24. CAEPCO and AEDC were advised of ADB's Anticorruption Policy (1998, as amended to date) and Policy on Combating Money Laundering and the Financing of Terrorism (2003). Consistent with its commitment to governance, accountability, and transparency, ADB will require AEDC and CAEPCO to institute, maintain, and comply with internal procedures and

⁷ ADB. 2001. *Social Protection Strategy*. Manila

controls following international best practice standards for the purpose of preventing corruption, money-laundering activities, and the financing of terrorism, and to covenant with ADB to refrain from engaging in such activities.

C. Investment Limitations

25. The proposed loans are within the medium-term, country, industry, group, and single-project exposure limits for nonsovereign investments.

D. Assurances

26. Consistent with the Agreement Establishing the Asian Development Bank, ADB will confirm with the Government of Kazakhstan if it has an objection to the proposed assistance to AEDC and CAEPCO. ADB will enter into suitable finance documentation, in form and substance satisfactory to ADB, following approval of the proposed assistance by the Board of Directors.

V. RECOMMENDATION

27. I am satisfied that the proposed loans would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loans of up to \$40,000,000 to the Akmola Electricity Distribution Company and the Central-Asian Electric Power Corporation for the Akmola Electricity Distribution Network Modernization and Expansion Project in Kazakhstan from ADB's ordinary capital resources, with such terms and conditions as are substantially in accordance with those set forth in this report, and as may be reported to the Board.

Takehiko Nakao
President

9 August 2013

DESIGN AND MONITORING FRAMEWORK

Design Summary	Performance Targets and/or Indicators with Baselines	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
<p>Impacts Accelerated upgrading of transnational and regional grid system in order to supply sufficient electricity to sustain the country's economic growth</p> <p>Promotion of private sector investment in the distribution sector</p>	<p>National electric power supply to exceed 100,000 GWh in 2020 from 90,000 GWh in 2012</p> <p>National distribution efficiency to reduce losses from 15% in 2013 to 10% in 2020</p> <p>Private sector participation in at least two provincial distribution projects by 2020</p>	<p>Energy sector statistics of the MINT</p>	<p>Assumptions Government's development priority still focused on energy sector development</p> <p>The regulatory framework, which ensures attractiveness for private participation, is in place.</p> <p>Risks Delay in construction of additional capacity and modernization of existing infrastructure</p> <p>Macroeconomic instability</p>
<p>Outcome An expanded and more efficient power supply by AEDC in Akmola province and Astana</p>	<p>Additional 200 GWh power supply through AEDC's improved distribution infrastructure in 2016 compared to 2013</p> <p>Additional 35,000 household end users of AEDC (indirectly through sales companies) in 2016 compared to 2012</p> <p>AEDC's low technical and commercial losses maintained at 5.5% or less by 2016</p> <p>Annual contribution to government revenue increased from T452 million in 2012 to T550 million in 2016</p>	<p>Energy sector statistics of the MINT</p> <p>AEDC annual reports</p>	<p>Assumptions Timely development of the modernization and expansion project</p> <p>Borrower's management prioritizes efficiency improvement in operations</p> <p>Risks Growth in generation capacity does not match the increase in distribution capacity</p> <p>Lower reliability of equipment than originally expected</p>
<p>Output AEDC's regional distribution network in Akmola province and Astana improved</p>	<p>Repair or modernization of 19 substations by 2015</p> <p>Construction of one new substation by 2015</p> <p>Repair or modernization of 60 km of 110 kV distribution lines by 2015</p> <p>Construction of 243 km of new 35/110 kV distribution lines by 2015</p>	<p>Project monitoring reports</p> <p>AEDC annual reports</p>	<p>Assumptions AEDC has sufficient technical and operating capacity to carry out the investment plan</p> <p>Approvals and clearances, if required, are obtained in a timely fashion</p> <p>Risks Unexpected construction delays</p>

Design Summary	Performance Targets and/or Indicators with Baselines	Data Sources and/or Reporting Mechanisms	Assumptions and Risks
	Upgrade of two transformers by 2015 Increase capacity of 11.78 km 110 kV Astana distribution line by 2015 Local purchase of goods and services amounts to T2,788 million during 2013–2015		Increase in prices of raw materials exceeds contingency and inflation forecast
Activities with Milestones 1. Financial close by October 2013 2. Construction or repair of distribution lines initiated in 2013 3. Upgrade of transformers initiated in 2013 4. Investment program implemented as scheduled and completed by end of 2015			Inputs ADB Direct loans of up to \$40 million

ADB = Asian Development Bank, AEDC = Akmola Electricity Distribution Company, GWh = gigawatt-hour, km = kilometer, kV = kilovolt, MINT = Ministry of Industry and New Technologies.

Source: Asian Development Bank.