



Project Data Sheet

Project 43456-023

Project Name	Power Sector Improvement Project (formerly Transmission and Distribution Metering Project)	
Project Number	43456-023	
Country / Economy	Kyrgyz Republic	
Project Status	Closed	
Project Type / Modality of Assistance	Grant Loan	
	Grant 0218-KGZ: Power Sector Improvement Project (formerly Transmission and Distribution Metering Project)	
Source of Funding / Amount	Asian Development Fund	US\$ 28.10 million
	Loan 2671-KGZ: Power Sector Improvement Project (formerly Transmission and Distribution Metering Project)	
	Asian Development Fund	US\$ 16.70 million
Strategic Agendas	Inclusive economic growth Regional integration	
Drivers of Change	Governance and capacity development	
Sector / Subsector	Energy / Electricity transmission and distribution	
Gender	No gender elements	

While the entire power sector needs modernization, the Government places highest priority on loss reduction and strengthening governance. This is not only to improve commercial operations, but to regain the population's confidence in the power sector and to reestablish political stability. Energy security through generation capacity expansion is a priority, but the short-term solutions are to improve system efficiency and reliability, and to enhance regional power trade. The proposed Project contributes to attaining the goals through the following components:

(i) Automated Metering and Data Acquisition system (AMDA) will bring transparency to the wholesale electricity transaction between the unbundled power companies as well as in regional power trade. AMDA will eliminate errors and rampant metering data manipulation that are untraceable by the current archaic technology. Loss reduction will make more power available domestically and also improve the financial performance of the power companies. Accurate power flow data is indispensable to improve the power companies' commercial operation performance. The system also enhances regional power trade through (i) meeting the CAPS metering accuracy requirement, and (ii) eliminating unauthorized export.

(ii) Substation Rehabilitation will improve reliability of the Kyrgyz power system by replacing dilapidated circuit-breakers and instrument transformers that have reached their economic lives, are technologically obsolete, or do not meet the accuracy requirement for regional power trade. Since the Kyrgyz system is intricately interconnected with the Central Asia Power System (CAPS), rehabilitation increases reliability of the regional system and enhance regional power trade.

(iii) Communications and Supervisory Control and Data Acquisition (SCADA) system will link seven major substations (estimated) and the control centers via optical fiber, and enables the system operator to make efficient dispatching based on real-time data. The scope is limited to system monitoring function of the northern loop. SCADA will reduce technical losses through avoidance of overloading, and also enable faster detection and restoration of faults. The system improves the overall efficiency and reliability of the Kyrgyz system and CAPS.

(iv) Study on Electricity Settlement Center will study the settlement systems appropriate to bring about transparency and accountability to the Kyrgyz power sector, and to maximize the benefits of the AMDA. It will devise mechanisms to publish data on energy flows and manage distribution of sector revenues in a transparent manner.

(v) Corporate and Financial Management Capacity Building for the National Electric Grid of Kyrgyzstan (NEGK) will improve corporate management through the preparation of a corporate business plan including the review of investment needs, operation and maintenance practices, organizational reforms, internal control, asset revaluation, and cost of transmission service. Financial management capacity will be strengthened through introduction of the International Financial Reporting Standards (IFRS) and appropriate corporate accounting software.

The project fits with ADB's Strategy 2020 and ADB's Energy Policy. The latter focuses on energy efficiency, cutting fossil fuel use, energy security, energy access, and regional cooperation. The project also promotes capacity development and governance.

Description

Project Rationale and Linkage to Country/Regional Strategy	Years of neglect since independence have left the Kyrgyz power sector in a state of disrepair. Facilities are dilapidated, losses are high, tariffs are below cost-recovery, and financial performance is poor. The power sector needs an urgent overhaul before the functionality of the system is lost. It needs to improve energy efficiency, energy security, and regional power trade. The proposed project is critical to attaining these goals.
Impact	Stronger reliability of national and regional power supply.

Project Outcome

Description of Outcome	<p>Better operational efficiency of the power companies</p> <p>NEGK submitted a satisfactory updated IEE on 25 June 2014. The IEE was endorsed by the State Agency on Environmental Protection and Forestry on 8 July 2014 and was posted on both ADB and NEGK websites. Environmental Monitoring Reports (EMRs), detailing the status of follow up activities indicated in the Environmental Management Plan (EMP), are likewise posted regularly at the ADB and NEGK websites. The project was closed on 31 July 2018 and loan and grant accounts will be closed on 30 November 2018 after completing all disbursements. Status of subprojects under the loan and grant as of 31 July 2018 were as follows:</p> <p>Lot 1 (Equipment) - The Supply Contract was awarded on 5 March 2013 and completed by the project closing date. All equipment envisaged by the original scope was delivered by 17 Dec 2014 and installed by 31 December 2017. In October 2017 a contract variation for Euro 3.4 million was agreed between NEGK and the contractor for supply of additional substation equipment at the cost of project savings. Installation works have been carried out by NEGK, and the Supply Contractor has provided installation supervision as per the contract. Replacement of old equipment in NEGK substations is completed in compliance with EMP.</p> <p>Lot 2 (Turnkey Contract) - The revised bidding documents was approved by ADB. Invitation for Bids was posted on ADB website on 16 September 2013 with initial deadline of 3 December 2013. The dateline for submission has been extended until 12 February 2014. An initial technical bid evaluation report (TBER) was issued in May 2014, but required numerous clarifications from ADB. The revised TBER was submitted in Sep 2014, with additional clarifications made in Nov 2014. ADB issued its no objection on the technical evaluation on 8 Jan 2015. Financial evaluation had been completed in March 2015. Contract negotiation had been concluded with the contract awarded on 14 July 2015. The contract became effective on 9 December 2015 and was completed by end-February 2018.</p> <p>The Consultants' Final Reports for the Settlement Center Study and Capacity Building of NEGK had been submitted to the Ministry of Energy and Industry in 2013. The consultants' contracts for both components had been respectively completed.</p>
Progress Toward Outcome	

Implementation Progress

Description of Project Outputs	(Physical) AMDA linking 190 NEGK substations and EPP facilities commissioned
	(Physical) Over 100 selected substations are rehabilitated
Status of Implementation Progress (Outputs, Activities, and Issues)	(Physical) SCADA (Phase 1: System Monitoring) developed for the northern transmission grid system
	(Nonphysical) Suitable settlement mechanism for wholesale electricity transactions is recommended
	(Nonphysical) Stronger financial management capacity of NEGK
	(Nonphysical) NEGK's business plan is prepared
<p>Project implementation was delayed, and three extensions in aggregate of four years and one month were approved with the project closure at end-July 2018. Implementation schedule was revised accordingly. The supply contract under Lot 1 (rehabilitation of substations) was awarded in March 2013. All the original scope of equipment was delivered by Dec 2014, and additional equipment was delivered in Q3 2018. Equipment installation was done under supervision of the contractor.</p> <p>The turn key contract under Lot 2 (AMDA, SCADA and OPGW) was awarded in July 2015. Implementation had started in December 2015. OPGW installation works were started in July 2016 after sectional LARP implementation. Factory test for SCADA was done in August 2016. Implementation of the AMDA subcomponent was behind the schedule because of replacement of the metering subcontractor in 2016, but was progressed well in 2017. The contract was completed by end-February 2018.</p> <p>The Final Reports for the Settlement Center Study and Capacity Building of NEGK had been submitted to the Ministry of Energy and Industry (MOEI) in 2013. A Russian version of the latter report was published on NEGK website.</p> <p>NEGK awarded external auditor contract to CJSC Jacobs-Audit on 26 June 2014. The auditor has been auditing the FY 2012-2018 APFSs for both NEGK and the State Committee for Industry, Energy and Subsoil Use (the successor of the MOEI).</p>	
Geographical Location	Nation-wide

Safeguard Categories

Environment	B
Involuntary Resettlement	B
Indigenous Peoples	C

Summary of Environmental and Social Aspects

Environmental Aspects	<p>An initial environmental examination was prepared and posted in accordance with ADB's Safeguard Policy Statement (2009). The major anticipated impact on environment will come from the disposal of electrical equipment. The IEE was updated to include for testing of oil for PCB contamination and management plan for oil disposal for cases of oil with and without PCB contamination. NEGK submitted satisfactorily updated IEE on 25 June 2014. The IEE was endorsed by the State Agency on Environmental Protection and Forestry on 8 July 2014 and was posted on both ADB and NEGK websites. The Environmental Monitoring Reports (EMRs), detailing the status of follow up activities indicated in the Environmental Management Plan (EMP), are likewise posted regularly at the ADB and NEGK websites. Laboratory tests did not identify PCB in NEGK's oil storage facilities. PCB tests are also being held for oil in current and voltage transformers at substations using portable PCB analyzers. PCB checks continued in 2018 in substations where additional scope of equipment will be installed. As of the project closing date on 31 July 2018 no cases of PCB contamination were identified.</p>
Involuntary Resettlement	<p>Project investments will be implemented mostly in existing substations where land acquisition and resettlement (LAR) impacts are not envisaged. Work space and access is required only for stringing OPGW over the existing transmission towers to develop a modern communication system. The towers are mostly on farmland. Very limited temporary LAR impact such as crop losses during installation was expected. A LAR framework was prepared and disclosed in accordance with ADB's Safeguard Policy Statement and Operations Manual F1/OP.12. The turnkey contractor prepared the LARP for each of nine transmission line sections in accordance with the LAR framework based on the contractor's approved design. Each LARP was approved by NEGK and project management consultants, submitted to ADB for endorsement, and posted. As of end-July 2017, all nine sectional LARPs/DDR's and implementation compliance reports were submitted to ADB, approved and posted on NEGK and ADB websites.</p>
Indigenous Peoples	<p>The project was not expected to affect indigenous peoples as defined under ADB's Safeguard Policy Statement.</p>

Stakeholder Communication, Participation, and Consultation

During Project Design	The Project did not involve sensitive social or participatory issues, but consultations were conducted during the S-PPTA.
During Project Implementation	Consultations were duly conducted in the areas affected by the OPGW stringing works.

Business Opportunities

Consulting Services	<p>(i) Project management. The project implementation contract was concluded in December 2014. NEGK engaged three individual consultants in December 2015 to augment the PIU staff for the rest of project implementation period.</p> <p>(ii) NEGK capacity development. The Consultants' Final Report for the Capacity Building of NEGK have been submitted to MOE. Consultant's contract was completed in 2013.</p> <p>(iii) Settlement mechanism study. The Consultants' Final Reports for the Settlement Mechanism Study was submitted to MOE. Consultant's contract was completed in 2013.</p>
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Procurement (i) Plant - design, supply, and install contract for AMDA and SCADA systems and communications. Bidding documents were issued in September 2013. Bids were received in February 2014. Technical bid evaluation report (TBER) was approved in January 2015. Financial evaluation was completed, and contract was awarded in July 2015.

(ii) Goods for substation rehabilitation and equipment. Supply contract was awarded on 5 March 2013 is ongoing. Goods delivery was completed in 2015, with 97% disbursed under the contract. Installation works are completed.

Responsible ADB Officer Eshenaliev, Mirdin Iskanderovich

Responsible ADB Department Central and West Asia Department

Responsible ADB Division Kyrgyz Resident Mission

Executing Agencies *Ministry of Energy of Kyrgyz Republic (formerly State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic)*
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Timetable

Concept Clearance	23 Apr 2010
Fact Finding	26 May 2010 to 14 Jun 2010
MRM	06 Aug 2010
Approval	27 Sep 2010
Last Review Mission	-
PDS Creation Date	05 Oct 2010
Last PDS Update	28 Sep 2018

Grant 0218-KGZ

Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
27 Sep 2010	08 Dec 2010	15 Jun 2011	30 Jun 2014	31 Jul 2018	09 Jan 2019

Financing Plan

Grant Utilization

Total (Amount in US\$ million)		Date	ADB	Others	Net Percentage
Project Cost	39.30	Cumulative Contract Awards			
ADB	28.10	17 Jun 2022	27.22	0.00	97%
Counterpart	11.20	Cumulative Disbursements			
Cofinancing	0.00	17 Jun 2022	27.22	0.00	97%

Status of Covenants

Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	Satisfactory	Satisfactory	Satisfactory	Satisfactory	-	Satisfactory

Loan 2671-KGZ

Milestones

Approval	Signing Date	Effectivity Date	Closing		
			Original	Revised	Actual
27 Sep 2010	08 Dec 2010	15 Jun 2011	30 Jun 2014	31 Jul 2018	09 Jan 2019

Financing Plan

Loan Utilization

	Total (Amount in US\$ million)	Date	ADB	Others	Net Percentage
Project Cost	16.70	Cumulative Contract Awards			
ADB	16.70	17 Jun 2022	15.50	0.00	100%
Counterpart	0.00	Cumulative Disbursements			
Cofinancing	0.00	17 Jun 2022	15.50	0.00	100%

Status of Covenants

Category	Sector	Safeguards	Social	Financial	Economic	Others
Rating	Satisfactory	Satisfactory	Satisfactory	Satisfactory	-	Satisfactory

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