

Project Administration Manual

Project Number: 49013-002

Loan and Grant Numbers: LXXXX-KGZ; GXXXX-KGZ

August 2016

Kyrgyz Republic: Toktogul Rehabilitation Phase 3 Project

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Project Administration Manual Purpose and Process

The project administration manual (PAM) describes the essential administrative and management requirements to implement the project on time, within budget, and in accordance with Government and Asian Development Bank (ADB) policies and procedures. The PAM should include references to all available templates and instructions either through linkages to relevant URLs or directly incorporated in the PAM.

The executing agencies—Open Joint Stock Company Electric Power Plants (EPP) and the Ministry of Economy (MOE)—are wholly responsible for the implementation of ADB financed projects, as agreed jointly between the borrower and ADB, and in accordance with Government and ADB's policies and procedures. ADB staff is responsible to support implementation including compliance by EPP and MOE of their obligations and responsibilities for project implementation in accordance with ADB's policies and procedures.

At Loan/Grant Negotiations the borrower, EPP, and ADB shall agree to the PAM and ensure consistency with the Project Financing Agreements. Such agreement shall be reflected in the minutes of the Loan/Grant Negotiations. In the event of any discrepancy or contradiction between the PAM and the Project Financing Agreements, the provisions of the Project Financing Agreements shall prevail.

After ADB Board approval of the project's report and recommendations of the President (RRP) changes in implementation arrangements are subject to agreement and approval pursuant to relevant Government and ADB administrative procedures (including the Project Administration Instructions) and upon such approval they will be subsequently incorporated in the PAM.

Abbreviations

ADB	=	Asian Development Bank
ADF	=	Asian Development Fund
AFS	=	audited financial statements
CAPS	=	Central Asian Power System
CQS	=	consultant qualification selection
DMF	=	design and monitoring framework
EDB	=	Eurasian Development Bank
EMP	=	environmental management plan
EPP	=	Open Joint-Stock Company Electric Power Plants
GACAP	=	governance and anticorruption action plan
ICB	=	international competitive bidding
IEE	=	initial environmental examination
LAR	=	land acquisition and resettlement
MOE	=	Ministry of Economy
PAI	=	project administration instructions
PAM	=	project administration manual
PIU	=	project implementation unit
PMC	=	project management consultant
QCBS	=	quality- and cost-based selection
RRP	=	report and recommendation of the President to the Board
SBD	=	standard bidding documents
SPS	=	Safeguard Policy Statement
SPRSS	=	summary poverty reduction and social strategy
TOR	=	terms of reference

I. PROJECT DESCRIPTION

1. The Asian Development Bank (ADB) financed the rehabilitation of the first two turbine-generator units and secondary electrical equipment of the largest and most important power plant in the Kyrgyz Republic under the Power Sector Rehabilitation Project (Phase 1) and the Toktogul Rehabilitation Phase 2 Project.¹ The proposed phase 3 project aims to (i) complete the rehabilitation of the Toktogul hydroelectric power plant (HPP) by replacing the two remaining turbine-generator units and refurbishing the civil structures of Toktogul dam, (ii) overhaul the dam monitoring systems at five dams along the Naryn cascade, (iii) continue the information campaign to educate the public on sector reforms, (iv) conduct corporate financial audits and business operation assessments of eight state-owned power and heat companies, and (v) implement a management modernization program for the power generation company.²

2. The power sector of the Kyrgyz Republic is characterized by aging assets, high commercial losses, and poor performance of the sector companies. Most assets are more than 30 years old and approaching the end of their economic lives. Given the increased demand for power in the Kyrgyz Republic, rehabilitation, replacement, and augmentation of power sector assets are critical for energy security in the country.³ The economy has shown sustained growth, averaging 5% in 2011–2015. However, growth in 2016 and 2017 is expected to slow to 1%–2% because of a slowdown in the economies of key neighboring trade partners.⁴

3. The Kyrgyz Republic is rich in renewable energy sources. More than 3,070 megawatts (MW) of the total 3,786 MW of installed power generation capacity come from hydropower, although the hydropower potential amounts to more than 18,500 MW. About 80% of power generation is from hydropower and the rest is from two combined heat and power plants in Bishkek and Osh where electricity is generated as a byproduct. Almost 100% of the population is connected to the electricity grid; however, with the increase in demand, outages occur in the winter months when hydropower is not available.

4. The power sector consists of two generation companies (Open Joint-Stock Companies Electric Power Plants [EPP] and Chakan GES); a transmission company; four electricity distribution companies; and a district heating company. The Ministry of Economy (MOE) has temporarily taken over strategic planning, policy development, and forecasting from the Ministry of Energy and Industry, which was abolished at the end of 2015 to optimize the activities of state agencies.⁵ Restructuring of state agencies is underway so that a new agency will be appointed to assume the former ministry's function. The State Agency for Regulation of Fuel and Energy has tariff-setting and licensing authority, while the National Energy Holding Company was established in early 2016 to manage the power sector.

¹ ADB. 2012. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Grant to the Kyrgyz Republic for the Power Sector Rehabilitation Project*. Manila (L2869/G0294-KGZ); and ADB 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan, Grant and Administration of Loan to the Kyrgyz Republic for the Toktogul Rehabilitation Phase 2 Project*. Manila. (L3212/G0419-KGZ). EDB cofinances phase 2 of the project. ADB also finances the strengthening of transmission infrastructure by linking major substations to a supervisory control and data acquisition system and introducing an automated metering system under the ongoing ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Grant to the Kyrgyz Republic for the Power Sector Improvement Project*. Manila (L2671/G0218).

² The project is included in ADB. 2015. *Country Operations Business Plan: Kyrgyz Republic, 2016–2018*. Manila.

³ Winter consumption grew by 62% from 2009 to 2012, while summer consumption grew by 16% in the same period. World Bank. 2014. *Power Sector Policy Note for the Kyrgyz Republic*. Washington, DC.

⁴ ADB. 2016. *Asian Development Outlook 2016*. Manila.

⁵ Government of the Kyrgyz Republic. 2015. *About Organization Measures in Connection with New Structure of the Government of Kyrgyz Republic*. Bishkek (Resolution number 768).

5. The country is the largest net exporter of electricity to the 500-kilovolt Central Asian Power System (CAPS), with average annual exports of 1,600 gigawatt-hours during 2007–2014. Exports of hydro-based electricity to CAPS occur during summer when electricity production exceeds domestic demand, which is associated with water release for regional irrigation needs.⁶ Along with electricity imports to augment supply, fossil fuels are imported during winter to supply thermal power plants.

6. Toktogul HPP, located on the Naryn River in Jalal–Abad Province and in service since 1975, is the largest and most important power plant in the Kyrgyz Republic. It has installed capacity of 1,200 MW and available capacity of 1,192 MW. Producing 40% of the country's average electricity output (both base and peak load), the Toktogul HPP plays a critical role as a power source for domestic use and export, and provides voltage and frequency regulation services to CAPS. Toktogul HPP has had an increasing number of critical failures since 2009 because of the dilapidated state of its equipment and, as a result, was using only 50% of its installed capacity in the winter of 2015/2016.

7. The government's Action Plan for Reforming the Energy Sector, supported by development partners, has yielded some good results: the appointment of a regulator, the reduction of losses, and the adoption of a Medium-Term Tariff Plan, 2014–2017 (MTTP).⁷ The government achieved a substantial reduction in electricity losses, from nearly 40% of generation in 2008 to 22% in 2014, partially contributed by better quality of supply. Further reform efforts on corporate governance, operational efficiency, and the financial viability of power companies identified by the action plan are required to improve the operational performance of the power sector. The project will assist the sector by (i) auditing the financial performance of the eight power and heat companies, (ii) assessing the sector's operational efficiency, and (iii) implementing a business process reengineering program for EPP as a pilot for the sector. These components will increase transparency in power sector activities, streamline business processes, and modernize management and decision-making processes.

8. At the start of MTTP implementation, the residential tariff was increased in 2014 by 10 to 208% while the commercial consumer tariff was increased by 92%.⁸ The government will gradually increase the weighted average tariff to Som1.67 per kilowatt-hour (kWh) by 2017 to achieve cost recovery.⁹ The main objective of the MTTP is to ensure sustainable financing and reliable supply in the face of electricity shortages caused by declining output and the need to import electricity. The government was successful in raising the residential tariff in 2014 and 2015 without causing social unrest thanks to a public information program funded under the phase 1 project, which made the population more aware of the benefits of sector reforms. The

⁶ CAPS connects the power systems of the Kyrgyz Republic, Southern Kazakhstan, Tajikistan, and Uzbekistan.

⁷ Government of the Kyrgyz Republic. 2013. *Action Plan for Reforming the Energy Sector for 2013–2014*. Bishkek. (approved by Ordinance No. 299 on 24 July 2013; and Government of the Kyrgyz Republic. 2014. *Medium-Term Tariff Plan for Electricity and Thermal Energy for 2014–2017*. Bishkek. (approved by Ordinance No. 660 on 20 November 2014).

⁸ Prior to implementation of MTTP, the residential tariff was Som0.70 per kWh and the industrial tariff was Som1.32 per kWh. In 2014, the tariff was increased to Som0.77 per kWh for consumption below 700kWh and to Som2.16 for those above, while commercial tariff was increased to Som2.24 per kWh.

⁹ According to the MTTP, the residential tariff will be increased by 20% in 2016 and 2017. For consumption above 700 kWh and other consumer groups, the tariff will be increased based on the weighted average tariff plus cost of electricity import with an annual inflation adjustment. In 2014, the cost-to-service weighted average residential tariff was Som1.20 per kWh and Som1.38 per kWh for other consumer groups, while in 2017, the cost-to-service weighted average residential tariff will be Som1.47 per kWh and Som1.69 per kWh for other consumer groups.

campaign will be continued as part of phase 3 to inform the public about recent sector developments and the benefits of an effective tariff policy.

9. Development of the energy sector is a critical priority for the Government of the Kyrgyz Republic.¹⁰ The project aligns with the government's and ADB's country partnership strategy for 2013–2017: (i) focus on reliable power supply, (ii) increase energy security, (iii) expand regional power exports, and (iv) improve sector management and operational performance.¹¹

10. ADB maintains dialogue with the government on energy sector reform and development, capacity enhancement, and good governance. In 2012, the Power Sector Regional Master Plan prepared under the Central Asia Regional Economic Cooperation Program defined investment priorities and a development plan.¹² From 2016 to 2018, the government will prepare a 10-year master plan under the phase 2 project, which will provide long-term demand projections and specify priority projects to secure sustainable and reliable power. The plan will also assess renewable energy capacities and the government's energy efficiency strategy.

11. **Impact and Outcome.** The project impact will be aligned with increased reliability of national and regional power systems (National Sustainable Development Program, 2013–2017). The outcome will be improved operational performance of the Kyrgyz Republic's power sector.

12. **Outputs and Beneficiaries:** The project's physical outputs will be the (i) rehabilitation of the Toktogul HPP by replacing two turbine-generator units (including associated auxiliary equipment) and refurbishing the civil structures of Toktogul dam, and (ii) overhaul of the dam monitoring systems at Toktogul, Kurpsai, Tashkumyr, Shamaldy-Sai, and Uch Kurgan dams. The Toktogul HPP rehabilitation is expected to result in (i) a fully refurbished plant that is operational for an additional 35 years, (ii) an increase in generation capacity by 120 MW, and (iii) more reliable domestic and regional power supply.¹³ The project's nonphysical outputs will be better public knowledge about sector reforms and benefits, and stronger governance and management procedures in the sector (including business operation assessment, management modernization, and corporate financial audit).

¹⁰ Government of the Kyrgyz Republic. 2013. *National Strategy of Sustainable Development for 2013–2017*. Bishkek (approved by Presidential Decree on 21 January 2013).

¹¹ ADB. 2013. *Country Partnership Strategy: Kyrgyz Republic, 2013–2017*. Manila.

¹² ADB. 2010. *Technical Assistance for Central Asia Regional Economic Cooperation: Power Sector Regional Master Plan*. Manila (TA 7558-REG).

¹³ Upgrading the generators by 60 MW each will result in additional generation capacity of 120 MW. The new turbine-generator units will be 2.5% more efficient than the old ones after the installation of state-of-the-art technology.

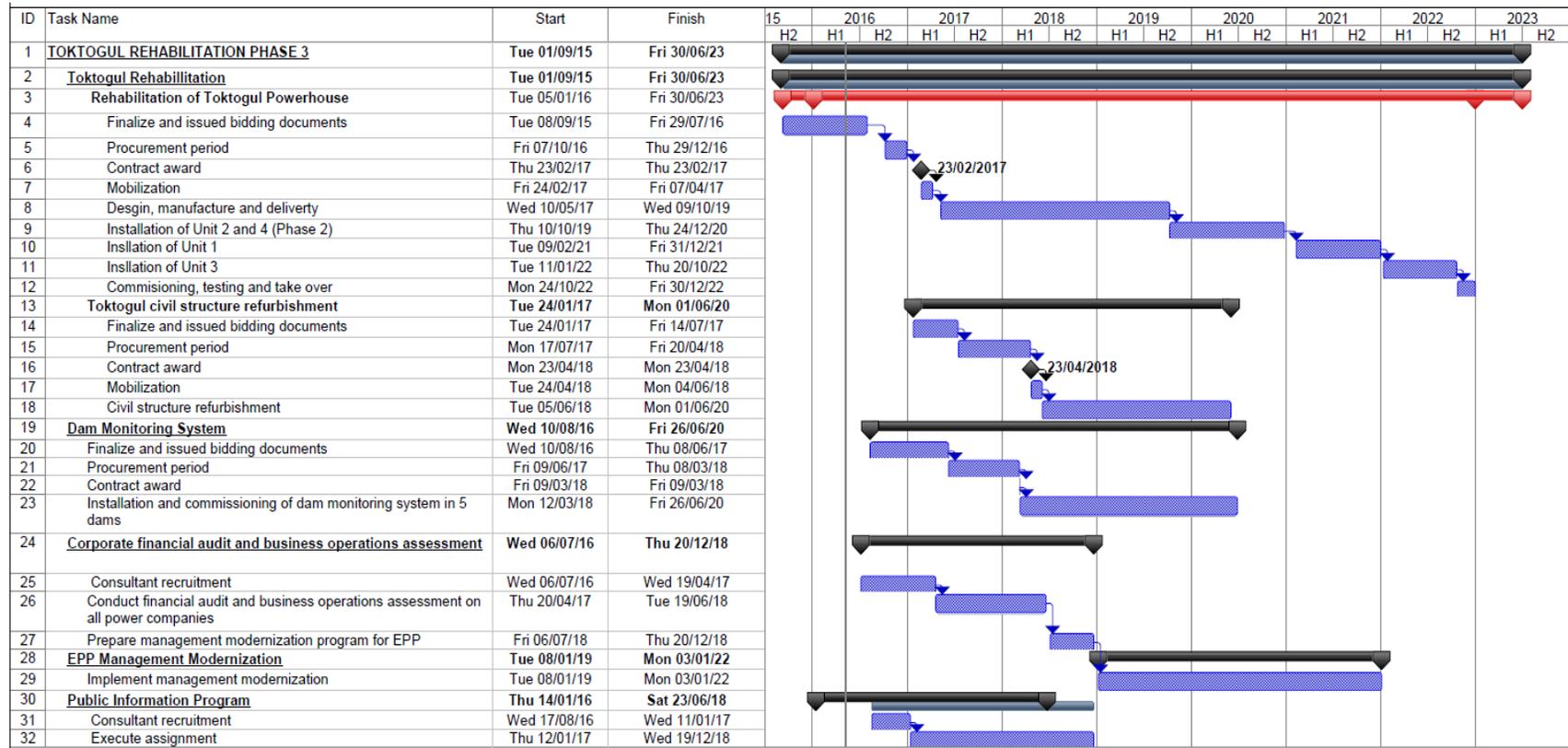
II. IMPLEMENTATION PLANS

A. Project Readiness Activities

Indicative Activities	2016-2017														Agency Responsible
	Month														
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	
Advance contracting actions		X													ADB, EPP, MOE
Loan/Grant negotiations							X								ADB, EPP
ADB Board consideration									X						ADB
EDB council consideration									X						EDB
Financing agreement, project agreement and SFA signing											X				ADB, EPP, MOE
Government legal opinion												X			MOJ, EPP
Government budget inclusion												X			MOF
SFA effectiveness														X	MOF, EPP
ADB Loan/grant effectiveness														X	ADB, MOE, MOJ
EDB loan effectiveness														X	EDB, MOE, MOJ

ADB = Asian Development Bank, EDB = Eurasian Development Bank, EPP = Open Joint-Stock Company Electric Power Plants, MOE = Ministry of Economy, MOF = Ministry of Finance, MOJ = Ministry of Justice, SFA = Subsidiary Finance Agreement.

B. Overall Project Implementation Plan



III. PROJECT MANAGEMENT ARRANGEMENT

A. Project Implementation Organizations – Roles and Responsibilities

Project implementation organizations	Management Roles and Responsibilities
<ul style="list-style-type: none"> • Ministry of Finance 	<p>Borrower</p> <ul style="list-style-type: none"> ➤ Ministry representing external borrowing ➤ Ensuring financing proceeds are used in accordance with Subsidiary Loan Agreement ➤ Handling of issues pertaining to project-related taxes and duties ➤ Implementation of safeguard measures and safeguard plan (as required by project initial environmental examination) ➤ Submission of periodic safeguard monitoring reports
<ul style="list-style-type: none"> • Open Joint-Stock Company Electric Power Plants (EPP) 	<p>Executing Agency</p> <ul style="list-style-type: none"> ➤ Executing agency for Toktogul HPP rehabilitation and civil structure refurbishment and dam monitoring system contracts ➤ Supervisor for project management consultant (PMC) and engineering contractors ➤ Submission of project financial statement audit and corporate financial statement audit ➤ Implementation of safeguard measures and safeguard plan (as required by project initial environmental examination) ➤ Submission of periodic safeguard monitoring reports
<ul style="list-style-type: none"> • Ministry of Economy (MOE) 	<p>Executing Agency</p> <ul style="list-style-type: none"> ➤ Overseeing function ➤ Supervisor for business process assessment and management modernization, public information program, corporate financial audit and project financial statement audit ➤ Submission of project financial statement audit
<ul style="list-style-type: none"> • Asian Development Bank (ADB) 	<p>Lender</p> <ul style="list-style-type: none"> ➤ Main project financier; administering EDB loan ➤ Providing timely guidance at each stage of project implementation in accordance with the agreed implementation arrangements ➤ Reviewing all the documents that require ADB approval ➤ Conducting inception mission, periodic project review missions, midterm review, a project completion report mission ➤ Supervising compliance with ADB loan/project

- covenants
 - Timely processing of withdrawal applications and release funds
 - Partially administering EDB loan (including procurement review and disbursement procedure).
 - Eurasian Development Bank (EDB)
 - Lender
 - Project cofinancier for Toktogul HPP rehabilitation.
 - Reviewing all documents that require EDB's approval
 - Supervising compliance of EDB loan covenants
 - Participation in ADB review missions (at own cost)
-

B. Key Persons Involved in Implementation

Executing Agency

MOE	Officer's Name	Turatbek Dzhunushaliev
	Position	Deputy Ministry of Economy
	Telephone	
	Email address	orp-2010@mail.ru
	Office address	119 Ahunbaev Street, Bishkek, 72005

EPP	Officer's Name	Uzak Kydyrbaev
	Position	Deputy General Director
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ADB

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Cofinancier

EDB	Staff Name	Alexey Cherekaev
	Position	Director, Project Group
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C. Project Organization Structure

13. **EPP Project Implementation Unit (PIU).** The EPP has a full-time PIU administering all consulting and procurement contracts of Phase 1 and Phase 2 on behalf of EPP. The current PIU team will be expanded to carry out the same responsibilities for the Toktogul Rehabilitation Phase 3 Project. It will be responsible as well for bid evaluation, contract award, construction supervision, contract management, and reporting to the government and ADB. The project implementation unit will be supported by additional individual consultants and project management consultants. Phase 2 project management consultant will assist in tendering and supervision of Toktogul turbine-generator units rehabilitation turnkey contract.

14. The PIU manager and staff will have appropriate academic qualifications with significant experience working on large investment projects and HPP. The PIU manager will be a senior manager with experience in project implementation and operation and must be familiar with projects funded by development partner. The project engineer and project accountant will have relevant experience and academic qualification in their specialty area. The procurement specialist will have the required academic qualifications with significant experience in recruitment of consultants and procurement of contractors.

15. The PIU manager will report directly to the General Director of EPP and will be the main point of contact for communication between EPP and ADB. The PIU will also coordinate between the consultants and contractors.

16. An international consulting firm will be engaged as PMC to support the EPP PIU in all aspects of project implementation matters. PMC will assist PIU in (i) bidding document preparation and bidding process for civil structure repair and dam monitoring system, and (ii) supervision and monitoring of the turbine generator installation and commissioning. Individual consultants (national) will be recruited to support the PIU functions.

17. Assisted by PMC, the PIU will submit the necessary project plans, tender evaluation reports, progress report applications for withdrawal of funds, and any other required reports to ADB, EDB and the government.

18. **MOE PIU:** MOE has an existing PIU to administer the consulting contracts of MOE for: (i) corporate financial audit, (ii) public information program, and (iii) business process assessment and management modernization. It will be responsible for proposal evaluation, contract award, contract management, progress reports preparation, withdrawal applications and other required reports for ADB. The individuals to be engaged for the PIU positions are: (i) procurement and (ii) financial experts. The PIU director will report directly to the Deputy Minister of Economy and will be the focal for working communication with MOE and ADB.

19. The terms of reference of the PIU manager and staff are as follows:

Position	Terms of Reference
PIU Manager	<ul style="list-style-type: none"> • Provide overall direction and management of PIU. • Focal point of PIU in communicating and reporting with ADB, MOE, and MOF. • Responsible for control of schedule, quality, quantity, cost, and safety of the physical investments of the project. • Ensure all project covenants relevant to EPP are met. • Ensure all safeguard requirements are satisfied. • Ensure that the General Director of EPP is apprised of implementation status on an ongoing basis.

Project Engineer	<ul style="list-style-type: none"> • Assist PIU manager in the delivery of his/her duties. • Manage PMC and contractors. • Monitor and supervise consultants' and contractors' progress. • Coordinate with engineers from technical and maintenance department on supervising the installation and commissioning of equipment for the power plant.
Procurement Specialist	<ul style="list-style-type: none"> • Prepare request for proposals of consulting services for project implementation. • Lead evaluation of bids and preparation of bid evaluation reports. • Lead consultants' contract negotiations and award of contracts. • Lead contract awards and any negotiations required prior to the award. • Manage consultants and their contracts.
Project Accountant	<ul style="list-style-type: none"> • Maintain separate project financial statements. • Prepare withdrawal applications. • Monitor loan covenants. • Prepare project financial reports. • Coordinate with EPP's central accounting department.
Safeguard Specialist (Operation and Technical Department)	<ul style="list-style-type: none"> • Ensure that the requirements identified in the initial environment examination are included in the bidding documents and contracts. • Ensure the implementation and monitoring of safeguard requirements and publish the results in the project's quarterly progress reports and semi-annual environmental reports. • Supervise the PMC on mitigation measures and monitoring plan as specified in the EMP and ensure that the PMC submits its semi-annual environmental monitoring reports. • Supervise PMC in the preparation of updated initial environment examination.
Engineers of Technical and Maintenance Departments	<ul style="list-style-type: none"> • Assist the project engineer. • Manage consultants' and consultants' progress and delivery of contract. • Supervise contractor's work in the installation and commissioning of electrical and mechanical equipment.

ADB = Asian Development Bank, EPP = Open Joint-Stock Company Electric Power Plants, MOE = Ministry of Economy, MOF = Ministry of Finance, PIU = project implementation unit, PMC = project management consultant.

IV. COSTS AND FINANCING

20. The project costs consist of: (i) one turnkey contract for Toktogul turbine-generator units 1 and 3 replacement; (ii) a large work contract for civil structure refurbishment; (iii) one turnkey contract for dam monitoring system; (iv) consulting services contracts for (a) project management consultants, (b) business process assessment and management modernization, (c) public information program, (d) corporate financial audit, and (e) project financial statement audit; (v) taxes and duties, and (vi) financial charges.

21. The financing plan for the project is shown below. The government has requested a loan of \$60,000,000, and a grant of \$50,000,000 equivalent from the Asian Development Fund resources. The government has also requested Eurasian Development Bank (EDB) to provide a loan of \$40,000,000 equivalent to be provided as joint cofinancing. The government will provide \$25,000,000 of (i) taxes and duties and (ii) financing charges during implementation for EDB loan.¹⁴ The EDB cofinancing will be used exclusively for Toktogul turbine-generator units 1 and 3 replacement. The government will allocate grant funds (\$7,370,000) including a contingency allocation of 10% to MOE for non-physical outputs. The government will relend the remaining amount (\$102,630,000 equivalent) to EPP as follows: 25% as equity and 75% as a loan under a relending agreement. The relending to EPP will be for a 25-year term, including a grace period of 7 years, and an interest rate of 1.5% per annum. EPP will bear foreign exchange risk. EDB

¹⁴ The government will ensure that (a) no taxes, duties or other mandatory payments are levied on the Project expenditure within its territory; or (b) sufficient budgetary allocations are provided to MOE and EPP to cover the cost of such taxes, duties or other mandatory payments; or (c) EPP has other financing resources sufficient to cover the cost of such taxes, duties or other mandatory payments.

loan will be partially administered by ADB including procurement review and disbursement procedure.

Table 1: Financing Plan

Source	Amount (\$ million)	Share of Total (%)
ADB - ADF Loan	60.00	34.28
ADB - ADF Grant	50.00	28.57
EDB Loan	40.00	22.86
Government of the Kyrgyz Republic	25.00	14.29
Total	175.00	100.00

ADB = Asian Development Bank, ADF = Asian Development Fund, EDB = Eurasian Development Bank.
Source: Asian Development Bank estimates.

A. Detailed Cost Estimate by Category
(\$ million)

Item	(\$ million)			% of Base Cost
	Foreign Currency	Local Currency	Total	
A. Investment Costs^a				
1 Toktogul turbine-generator units 1 and 3 replacement	92.32	4.86	97.19	68.92%
2 Civil structure refurbishment	2.63	4.88	7.50	5.32%
3 Dam monitoring system	1.70	-	1.70	1.21%
4 Consulting Services				
a. Business process assessment and management modernization ^b	3.00	2.00	5.00	3.55%
b. Project management and individual consultants ^c	2.40	1.60	4.00	2.84%
c. Public information program	0.24	0.16	0.40	0.28%
d. Corporate financial audit for eight power and heat companies	0.72	0.48	1.20	0.85%
e. Project financial statement audit for EPP and MOE	0.08	0.05	0.13	0.09%
B. Taxes and Duties^d	-	23.90	23.90	16.95%
Total Base Cost (A+B)	103.09	37.93	141.02	100.00%
C. Contingencies^e				
Physical Contingency	19.39	2.10	21.49	15.24%
Price Contingency	8.92	1.13	10.05	7.13%
Subtotal (C)	28.31	3.23	31.54	22.37%
D. Financial Charges During Implementation^f	2.44	-	2.44	1.73%
Total Project Cost (A+B+C+D)	133.84	41.16	175.00	124.10%

EPP = Open Joint-Stock Company Electric Power Plants, MOE = Ministry of Economy

Source: Consultant and Asian Development Bank estimates.

^a In 2015 prices.

^b Include business operation assessment of eight power and heat companies and implementation of management modernization for EPP.

^c Include EPP and MOE project implementation unit support.

^d Include taxes and duties (10% custom duties and 12% value added tax) to be financed or waived by the Government of Kyrgyz Republic.

^e Physical contingencies computed at 16% for turnkey contracts and at 5% for all other cost categories. Price contingencies computed following the ADB's cost escalation factors, a power purchase parity assumption has been made to compute exchange rate adjustments.

^f Includes financial charges during construction on ADB loan at 1% per annum; and at 1% per annum of EDB loan, and 0.5% upfront commission on EDB loan. The government will finance EDB loan financing charges and upfront commission.

B. Allocation and Withdrawal of Loan/Grant Proceeds

ALLOCATION AND WITHDRAWAL OF LOAN PROCEEDS			
(Toktogul Rehabilitation Phase 3 Project)			
Number	Item	Total Amount Allocated for ADB Financing (SDR)	Percentage and Basis for Withdrawal from the Loan Account
1	Turnkey contract for Toktogul turbine-generator units 1 and 3 replacement	28,012,000	40% of total expenditure claimed*
2	Work contract for civil structure refurbishment	3,241,000	60% of total expenditure claimed*
3	Interest charges during implementation	973,000	100% amount due
4	Unallocated	11,002,000	
	Total	43,228,000	

ADB = Asian Development Bank.

* Exclusive of taxes and duties imposed within the territory of the Borrower.

ALLOCATION AND WITHDRAWAL OF GRANT PROCEEDS				
(Toktogul Rehabilitation Phase 3 Project)				
Number	Item	Total Amount Allocated for ADB Financing (USD)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Turnkey contract for Toktogul turbine-generator units 1 and 3 replacement	25,660,000		26% total expenditure claimed*
2	Work contract for civil structure refurbishment	3,000,000		40% total expenditure claimed*
3	Turnkey contract dam monitoring system	1,700,000		100% total expenditure claimed*
4	Consulting Services	10,730,000		
4a	Consulting Services (EPP)		4,030,000	100% total expenditure claimed*
4b	Consulting Services (MOE)		7,370,000	100% total expenditure claimed*
5	Unallocated (for Categories 1,2,3 and 4a)	8,240,000		
	Total	50,000,000		

ADB = Asian Development Bank, EPP = Open Joint-Stock Company Electric Power Plants, MOE = Ministry of Economy.

* Exclusive of taxes and duties imposed within the territory of the Borrower.

ALLOCATION AND WITHDRAWAL OF EDB LOAN PROCEEDS				
(Toktogul Rehabilitation Phase 3 Project)				
Number	Item	Total Amount Allocated for ADB Financing (USD)		Percentage and Basis for Withdrawal from the Loan Account
		Category	Subcategory	
1	Turnkey contract for Toktogul turbine-generator units 1 and 3 replacement	32,650,000		34% total expenditure claimed*
2	Unallocated	7,350,000		
	Total	40,000,000		

ADB = Asian Development Bank, HPP = hydroelectric power plant.

* Exclusive of taxes and duties imposed within the territory of the Borrower.

**C. Detailed Cost Estimate by Financier
(\$ million)**

Item	ADB				EDB Loan		Government		Total Cost
	ADF Loan		ADF Grant		Amount	% of Cost	Amount	% of Cost	
	Amount	% of Cost	Amount	% of Cost					
A. Investment Costs^a									
1 Toktogul turbine-generator units 1 and 3 replacement	38.88	40.00%	25.66	26.40%	32.65	33.59%	-	0.00%	97.19
2 Civil structure refurbishment	4.50	60.00%	3.00	40.00%	-	0.00%	-	0.00%	7.50
3 Dam Monitoring System	-	0.00%	1.70	100.00%	-	0.00%	-	0.00%	1.70
4 Consulting Services									
a. Business process assessment and management modernization	-	0.00%	5.00	100.00%	-	0.00%	-	0.00%	5.00
b. Project management and individual consultants	-	0.00%	4.00	100.00%	-	0.00%	-	0.00%	4.00
c. Public information program	-	0.00%	0.40	100.00%	-	0.00%	-	0.00%	0.40
d. Corporate financial audit for eight power and heat companies	-	0.00%	1.20	100.00%	-	0.00%	-	0.00%	1.20
e. Project financial statement audit for EPP and MOE	-	0.00%	0.13	100.00%	-	0.00%	-	0.00%	0.13
Subtotal (A)	43.38	37.04%	41.09	35.08%	32.65	27.88%	-	0.00%	117.12
B. Taxes and Duties^b	-	0.00%	-	0.00%	-	0.00%	23.90	100.00%	23.90
Total Base Costs (A+B)	43.38	30.76%	41.09	29.14%	32.65	23.15%	23.90	16.95%	141.02
C. Contingencies^c									
Physical Contingency	10.41	48.44%	6.08	28.29%	5.01	23.31%	-	0.00%	21.49
Price Contingency	4.86	48.36%	2.83	28.16%	2.34	23.28%	-	0.00%	10.05
Subtotal (C)	15.27	48.41%	8.91	28.25%	7.35	23.30%	-	0.00%	31.54
D. Financial Charges During Implementation^d	1.35	55.33%	-	0.00%	-	0.00%	1.10	44.92%	2.44
Total (A+B+C+D)	60.00	34.29%	50.00	28.57%	40.00	22.86%	25.00	14.28%	175.00
% of Total Project Cost		34.29%		28.57%		22.86%		14.28%	

ADB = Asian Development Bank, ADF= Asian Development Fund, EDB = Eurasian Development Bank

Source: Consultant and Asian Development Bank estimates.

^a In 2015 prices.

^b Include taxes and duties (10% custom duties and 12% value added tax) to be financed or waived by the Government of the Kyrgyz Republic.

^c Physical contingencies computed at 16% for turnkey contracts and at 5% for all other cost categories. Price contingencies computed following the ADB's cost escalation factors, a power purchase parity assumption has been made to compute exchange rate adjustments.

^d Includes financial charges during construction on ADB loan at 1% per annum; and at 1% per annum of EDB loan, and 0.5% upfront commission on EDB loan.

D. Detailed Cost Estimate by Output (\$ million)

Item	Total Cost	Toktogul Rehabilitation		Dam Monitoring System		Public Knowledge on Power Sector Reform		Business Process Assessment and Management Modernization	
		Amount	% of Cost category	Amount	% of Cost category	Amount	% of Cost category	Amount	% of Cost category
A. Investment Costs^a									
1 Toktogul turbine-generator units 1 and 3 replacement	97.19	97.19	100.0%	-	0.0%	-	0.0%	-	0.0%
2 Civil structure refurbishment	7.50	7.50	100.0%	-	0.0%	-	0.0%	-	0.0%
3 Dam Monitoring System	1.70	-	0.0%	1.70	100.0%	-	0.0%	-	0.0%
4 Consulting Services									
a. Business Process Assessment and Management Modernizatio	5.00	-	0.0%	-	0.0%	-	0.0%	5.00	100.0%
b. Project management and individual consultants	4.00	3.00	75.0%	0.90	22.5%	0.05	1.3%	0.05	1.3%
c. Public information program	0.40	-	0.0%	-	0.0%	0.40	100.0%	-	0.0%
d. Corporate financial audit for eight power and heat companies	1.20	-	0.0%	-	0.0%	-	0.0%	1.20	100.0%
e. Project financial statement audit	0.13	0.13	100.0%	-	0.0%	-	0.0%	-	0.0%
Subtotal (A)	117.12	107.82	108.63%	2.60	2.22%	0.45	0.38%	6.25	5.34%
B. Taxes and Duties^b	23.90	22.19	92.8%	0.40	1.7%	0.05	0.2%	1.26	5.3%
Total Base Costs (A+B)	141.02	130.01	92.19%	3.00	2.13%	0.50	0.35%	7.51	5.33%
C. Contingencies^c									
Physical Contingency	21.49	20.32	94.6%	0.34	1.6%	0.04	0.2%	0.79	3.7%
Price Contingency	10.05	9.06	90.1%	0.15	1.5%	0.04	0.4%	0.80	8.0%
Subtotal (C)	31.54	29.38	93.2%	0.49	1.6%	0.08	0.3%	1.59	5.0%
D. Financial Charges During Implementation^d	2.44	2.44	100.0%	-	0.0%	-	0.0%	-	0.0%
Total Project Cost (A+B+C+D)	175.00	161.83	92.5%	3.49	2.0%	0.58	0.3%	9.10	5.2%

Source: Consultant and Asian Development Bank estimates.

^a In 2015 prices.

^b Include taxes and duties (10% custom duties and 12% value added tax) to be financed or waived by the Government of the Kyrgyz Republic.

^c Physical contingencies computed at 16% for turnkey contracts and at 5% for all other cost categories. Price contingencies computed following the ADB's cost escalation factors, a power purchase parity assumption has been made to compute exchange rate adjustments.

^d Includes financial charges during construction on ADB loan at 1% per annum; and at 1% per annum of EDB loan, and 0.5% upfront commission on EDB loan.

E. Detailed Cost Estimate by Year
(\$ million)

Item	Total Cost	Year 1 2017	Year 2 2018	Year 3 2019	Year 4 2020	Year 5 2021	Year 6 2022	Year 7 2023
A. Investment Costs^a								
1 Toktogul turbine-generator units 1 and 3 replacement	97.19	0.97	3.89	9.72	14.58	19.44	22.35	26.24
2 Civil structure refurbishment	7.50	0.08	0.30	0.75	1.13	1.50	1.73	2.03
3 Dam Monitoring System	1.70	0.02	0.07	0.17	0.26	0.34	0.39	0.46
4 Consulting Services								
a. Business process assessment and management modernization	5.00	0.05	0.20	0.50	0.75	1.00	1.15	1.35
b. Project management and individual consultants	4.00	0.04	0.16	0.40	0.60	0.80	0.92	1.08
c. Public information program	0.40	0.00	0.02	0.04	0.06	0.08	0.09	0.11
d. Corporate financial audit	1.20	0.01	0.05	0.12	0.18	0.24	0.28	0.32
e. Project financial statement audit for EPP and MOE	0.13	0.00	0.01	0.01	0.02	0.03	0.03	0.04
B. Taxes and Duties^e	23.90	0.24	0.96	2.39	3.59	4.78	5.50	6.45
Total Base Costs (A+B)	141.02	1.41	5.64	14.10	21.15	28.20	32.43	38.08
C. Contingencies^c								
Physical contingency	21.49	-	-	-	-	-	-	21.49
Price contingency	10.05	-	-	-	-	-	-	10.05
Subtotal (C)	31.54	-	-	-	-	-	-	31.54
D. Financial Charges During Implementation^c	2.44	0.02	0.10	0.24	0.37	0.49	0.56	0.66
Total (A+B+C+D)	175.00	1.43	5.74	14.35	21.52	28.69	33.00	70.27
% Total Project Cost								

Source: Consultant and Asian Development Bank estimates.

^a In 2015 prices.

^b Include taxes and duties (10% custom duties and 12% value added tax) to be financed or waived by the Government of the Kyrgyz Republic.

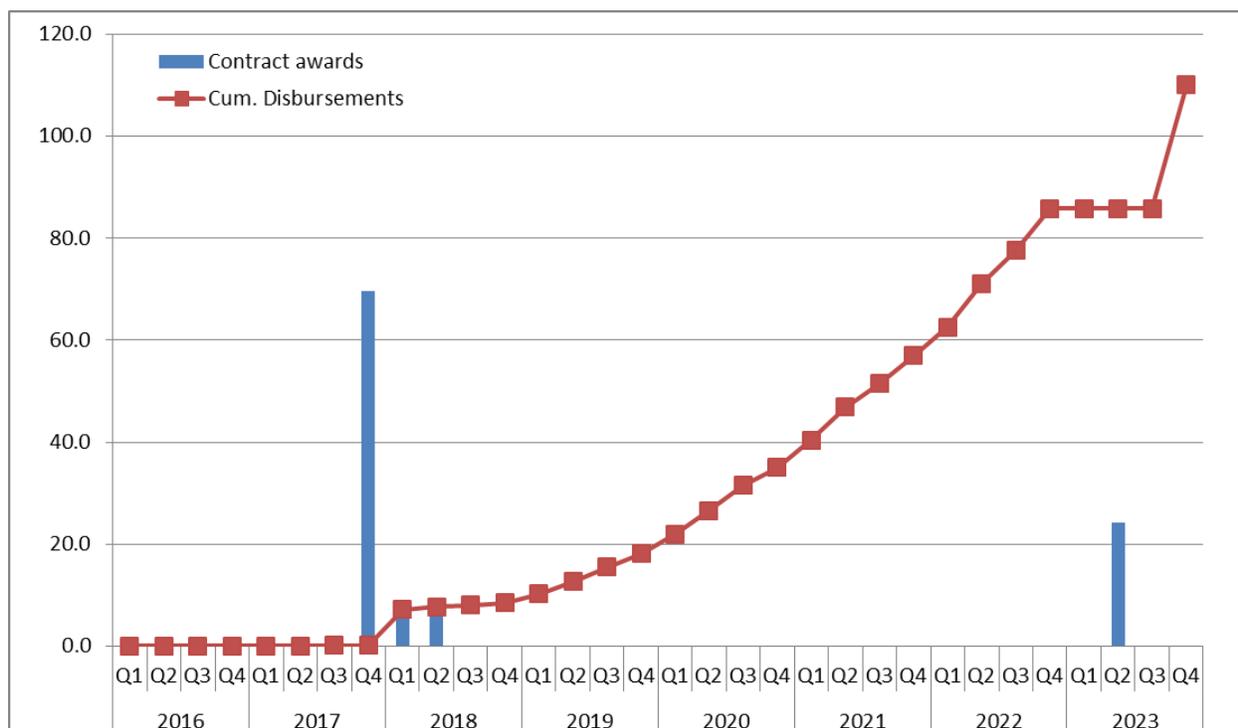
^c Physical contingencies computed at 16% for turnkey contracts and at 5% for all other cost categories. Price contingencies computed following the ADB's cost escalation factors, a power purchase parity assumption has been made to compute exchange rate adjustments.

^d Includes financial charges during construction on ADB loan at 1% per annum; and at 1% per annum of EDB loan, and 0.5% upfront commission on EDB loan.

F. Contract and Disbursement S-curve

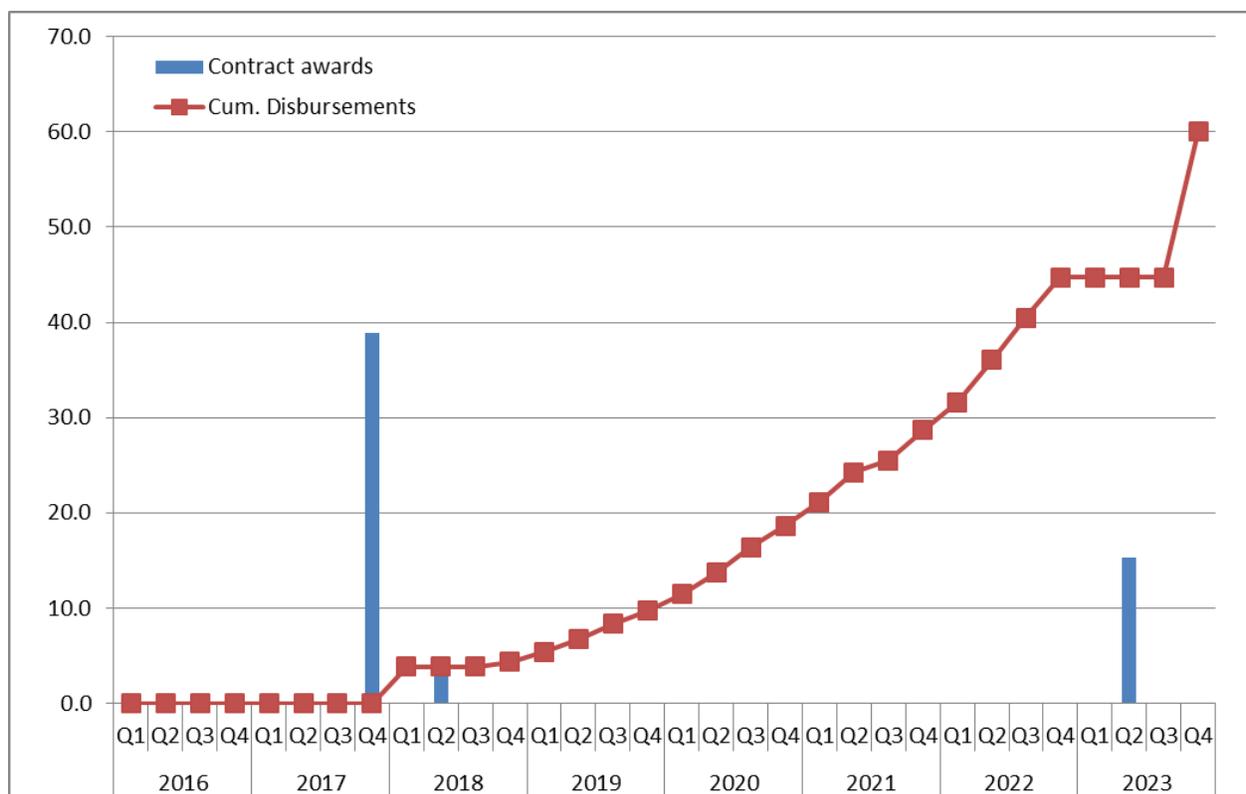
22. Baseline projection – entire ADB financing

	Contract Awards (in USD million)					Disbursements (in USD million)					
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2017	0.40	0.00	1.33	69.54	71.27	0.00	0.04	0.00	0.13	0.17	
2018	5.70	7.50	0.00	0.00	13.20	6.95	0.57	0.30	0.45	8.27	
2019	0.00	0.00	0.00	0.00	0.00	1.81	2.43	2.84	2.57	9.66	
2020	0.00	0.00	0.00	0.00	0.00	3.84	4.62	4.98	3.47	16.92	
2021	0.00	0.00	0.00	0.00	0.00	5.38	6.47	4.59	5.43	21.87	
2022	0.00	0.00	0.00	0.00	0.00	5.66	8.50	6.46	9.66	30.28	
2023	0.00	24.18	0.00	0.00	24.18	0.00	0.00	0.00	22.83	22.83	
	Total Contract Awards					108.65	Total Disbursements				110.00



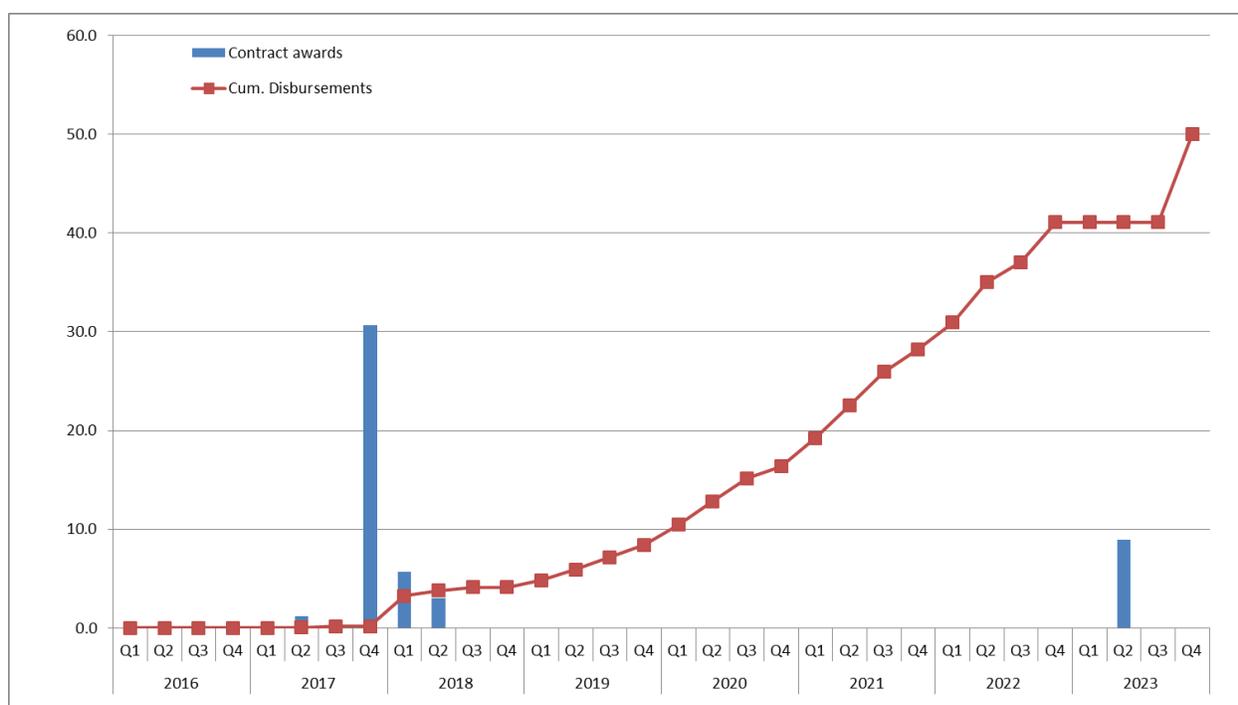
23. Baseline projection – ADB ADF Loan

	Contract Awards (in USD million)					Disbursements (in USD million)				
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2017	0.00	0.00	0.00	38.88	38.88	0.00	0.00	0.00	0.00	0.00
2018	0.00	4.50	0.00	0.00	4.50	3.89	0.00	0.00	0.45	4.34
2019	0.00	0.00	0.00	0.00	0.00	1.07	1.34	1.61	1.34	5.37
2020	0.00	0.00	0.00	0.00	0.00	1.79	2.24	2.68	2.24	8.95
2021	0.00	0.00	0.00	0.00	0.00	2.50	3.13	1.25	3.13	10.02
2022	0.00	0.00	0.00	0.00	0.00	2.95	4.43	4.43	5.60	17.41
2023	0.00	15.27	0.00	0.00	15.27	0.00	0.00	0.00	13.92	13.92
	Total Contract Awards				58.65	Total Disbursements				60.00



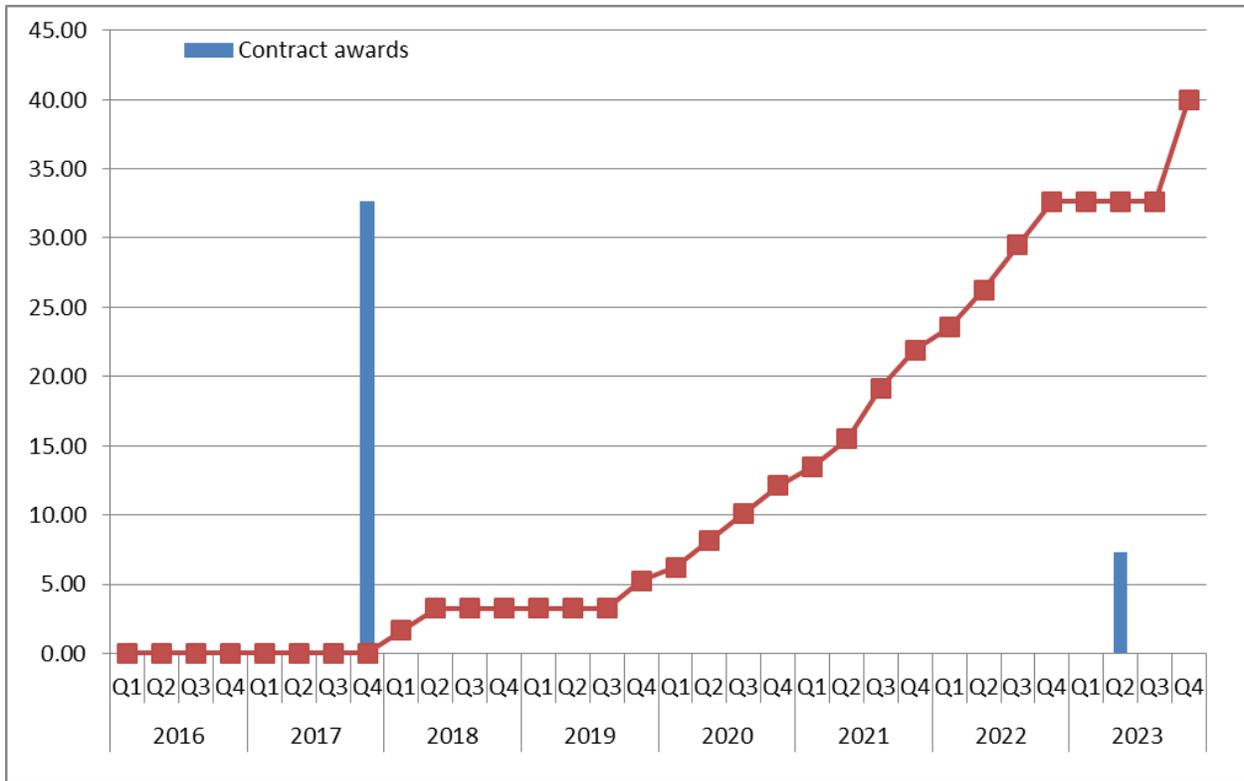
24. Baseline projection – ADB ADF Grant

	Contract Awards (in USD million)					Disbursements (in USD million)					
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total	
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2017	0.40	1.20	0.13	30.66	32.39	0.00	0.04	0.12	0.01	0.17	
2018	5.70	3.00	0.00	0.00	8.70	3.07	0.57	0.30	0.00	3.94	
2019	0.00	0.00	0.00	0.00	0.00	0.74	1.08	1.23	1.23	4.29	
2020	0.00	0.00	0.00	0.00	0.00	2.05	2.38	2.30	1.23	7.97	
2021	0.00	0.00	0.00	0.00	0.00	2.88	3.34	3.34	2.30	11.85	
2022	0.00	0.00	0.00	0.00	0.00	2.71	4.07	2.03	4.06	12.87	
2023	0.00	8.91	0.00	0.00	8.91	0.00	0.00	0.00	8.91	8.91	
	Total Contract Awards					50.00	Total Disbursements				50.00

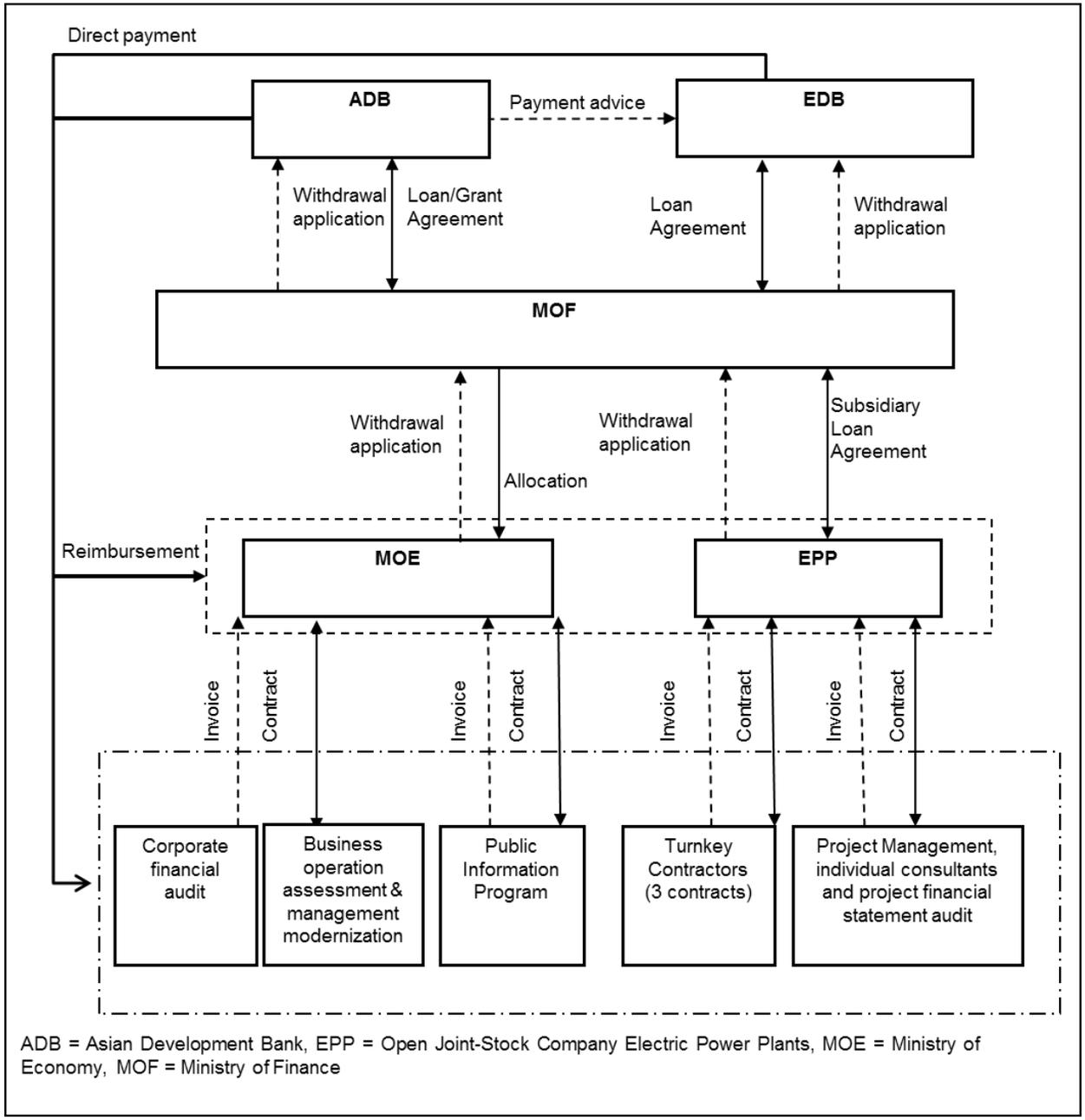


25. Baseline projection – EDB loan

	Contract Awards (in USD million)					Disbursements (in USD million)						
	Q1	Q2	Q3	Q4	Total	Q1	Q2	Q3	Q4	Total		
2016	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2017	0.00	0.00	0.00	32.65	32.65	0.00	0.00	0.00	0.00	0.00		
2018	0.00	0.00	0.00	0.00	0.00	1.64	1.62	0.00	0.00	3.26		
2019	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.97	1.97		
2020	0.00	0.00	0.00	0.00	0.00	0.98	1.97	1.97	1.97	6.88		
2021	0.00	0.00	0.00	0.00	0.00	1.38	2.02	3.67	2.75	9.81		
2022	0.00	0.00	0.00	0.00	0.00	1.62	2.70	3.24	3.16	10.73		
2023	0.00	7.35	0.00	0.00	7.35	0.00	0.00	0.00	7.35	7.35		
	Total Contract Awards					40.00	Total Disbursements					40.00



G. Fund Flow Diagram



V. FINANCIAL MANAGEMENT

A. Financial Management Assessment

26. An update on the Financial Management Assessment (FMA) for EPP was conducted by ADB for the Toktogul Rehabilitation Phase 3 Project in accordance with ADB's Guidelines for the Financial Management and Analysis of Projects¹⁵ and the publication Financial Due Diligence: A Methodology Note.¹⁶ The MOE, which is the executing agency for three components, has also been assessed. The FMA included a review of the accounting and reporting system, internal and external auditing arrangements, fund disbursement procedures, and information systems. The primary instrument used for the assessment was ADB's financial management assessment questionnaire, together with interviews with the executing agency staff.

27. The overall project financial management risk is assessed to be "moderate", due to the strong project financial management arrangements in place in EPP, which is the principal executing agency accounting for about 95% of the project. The financial management risk of MOE is considered negligible. EPP has already been implementing the Power Sector Rehabilitation Project, and the audited project financial statements provide a clean opinion. The Management Letter has also not revealed any significant internal control weaknesses. More details of the risk assessment and mitigation measures are presented in the following paragraphs.

1. Inherent Risk

28. Inherent Risk is the susceptibility of the project financial management system to factors arising from the environment in which it operates, such as country rules and regulations and entity working environment (assuming absence of any counter checks or internal controls).

Risk type	Risk Asset ¹⁷	Risk Description	Mitigation Measures
1. Country-Specific Risks	H	Low quality of planning may impact budget execution.	The government has approved a midterm action plan in October 2012 to reform the public financial management system. The government has been making substantial efforts with external support to introduce management information systems and automated tax and custom operations, modernize treasury operations, and decentralize financial management functions to local governments. Improving political and economic stability is expected to contribute to improved budget execution.

¹⁵ Financial Management and Analysis of Projects. ADB. 2005.

¹⁶ Financial Due Diligence A Methodology Note. ADB. 2009.

¹⁷ H = High, S = Substantial, M = Moderate, N = Negligible or Low.

Risk type	Risk Asset ¹⁷	Risk Description	Mitigation Measures
	S	Lack of public support to raise tariffs may undermine EPP's proper operation and financial sustainability.	A medium-term tariff plan 2014-2017 is under implementation, heating and electricity tariff has already been raised in July 2014 and August 2015, with plans to raise consumer electricity tariff every year in stages from 2014 to 2017. Legislation has recently been enacted to establish an independent power sector regulator that will determine cost-reflective tariff. ADB is supporting the conduct of a Public Information Program to explain the rationale for tariff increases to the general public.
2. Entity-specific risks	H	The sector level revenue distribution mechanism remains arbitrary and non-transparent. There is unpredictability about the distribution of revenue between the different sector companies.	The Kyrgyzstan Electric Settlement Centre is being established, which will develop a transparent and fair revenue distribution mechanism. An independent electricity regulator was established to advise cost-reflective tariff. Through the medium-term tariff plan 2014-2017, the government has signalled its intention to progressively increase tariffs from 2014 to 2017.
	M	Lack of internal control and weak internal audit function. The internal audit function reports to the General Director.	Internal audit function was imposed on the energy sector companies. However, the nature of audit function which is supposed to report to the Board of Directors, has been placed under the Director General, which weakens its independence.
	M	Inadequate salaries, aging staff and staff turnover.	A training centre under National Electric Grid of Kyrgyzstan is educating new generation of specialists. Specialists are sufficiently educated at the relevant university located in the site.
3. Project specific risks	M	PIU may not have capacity to manage the project fund flows and ensure disbursement arrangements.	EPP will recruit an additional individual consultants for Phase 3 to assist in project financial management. Experiences gained during Phases 1 and 2 and further training in ADB procedures will help to mitigate this risk. To ensure timely cash flow and reduce administrative burden, the disbursement will largely adopt direct payment and commitment procedures. Reimbursement procedures will be used for small amounts only.
	M	Low salaries and staff turnover in the PIU.	The PMU will be staffed both by EPP staff, and consultants in the initial years, to improve project implementation.

Risk type	Risk Asset ¹⁷	Risk Description	Mitigation Measures
Overall Assessment of Inherent Risk	S		

2. Control Risk

29. Control Risk is the risk that the project's accounting and internal control framework are inadequate to ensure project funds are used economically and efficiently and for the purpose intended, and that the use of funds is properly reported.

Risk type	Risk Asset ¹⁸	Risk Description	Risk Mitigation Measures
Control Risk			
1. Implementing Entity	M	Project financial management policies and procedures have been established, but experience still needs to be gained.	Support will be provided to the PIU to gain sound financial management experience. Project management consultants will be provided to strengthen the PIU capacity.
2. Funds Flow	M	Challenges may be encountered in managing disbursements, due to weak cash flows. This may cause delays in payments to consultants.	The project will apply direct payment, commitment, and reimbursement procedures for the Contracts.
3. Staffing	M	The work load in the PIU is higher than in the relevant departments of EPP. However, salaries remain at the same level. Staff turnover and a lack of financial management skills. Accounting staff have limited understanding of ADB requirements.	The PMU in EPP will be supported by a project management consultant as well as individual consultants in the initial years. MOE will also be supported through individual consultants for effective project implementation. Provide regular training on ADB's procurement and disbursement processes.
4. Internal Audit	M	There was no effective internal audit function for the previous phases.	EPP has established an internal audit unit. Its effectiveness will be monitored during implementation.
5. External Audit	M	Capacity of external auditors in the country is weak as regards IFRS compliance assessment.	Project financial auditing will be supported through project funds, enabling recruitment of good quality external auditors.

¹⁸ H = High, S = Substantial, M = Moderate, N = Negligible or Low.

6. Reporting and Monitoring	M	Financial reports are produced but are often based on unreconciled accounts, and are provided late	Timely and reliable reporting provided to all stakeholders. PIU to prepare and submit to the management of ADB quarterly and annual progress reports on project implementation and operation. Monitor compliance with financing /projects covenants, including submission of audited project financial statements.
8. Information Systems	M	The 1C enterprise software package for accounting and reporting is lacking some sub-accounts and out-of-balance accounts for the project purposes. It does not assure compatibility and timeliness from all branches when preparing financial reports.	A separate accounting system for the PIU is in place with Microsoft Excel. The PIU is in the process of obtaining appropriate accounting software.
Overall Control Risk	M		

30. The project design has taken into consideration the weaknesses identified in country and institutional level arrangements. The financial management in EPP is supported through project management consultants for the first 4 years, besides the expansion and strengthening of a project implementation unit that is already managing the first project.¹⁹ To mitigate a weak liquidity position, direct payment procedures will predominate. Considering that the CPS has rated the Public Financial Management risk as high, imprest accounts will not be established and reimbursement procedure for eligible expenditures will apply with full supporting documentation.

31. To improve the efficiency in the energy sector (covering all eight state-owned power and heat companies), the project includes a business operations assessments and management modernization component. The business operations assessment will be conducted at all eight power and heat companies while the management modernization program will be implemented in EPP. This is expected to significantly strengthen the efficiency and effectiveness of business operations across the sector. The project also includes recruitment of international auditor to ensure higher standards of external corporate audit for eight power and heat companies for 2 financial years.

32. MOE has mandated the establishment of an internal audit unit in EPP, and EPP has recently established an internal audit unit in 2014 with four staff (one head and three

¹⁹ Loan 2869-KGZ and Grant 0294-KGZ - *Power Sector Rehabilitation Project*, for Phase I rehabilitation of the Toktogul hydroelectric power plant.

specialists). The implementation of internal audit is expected to significantly strengthen internal control within EPP, and will be monitored during project implementation.

33. For the ongoing projects (Phase 1 and Phase 2), the PIU has been using Excel-based reporting to generate project accounts. As the second phase was approved and the third phase is underway, EPP confirmed that it would procure an off-the-shelf software for the PIU from its own resources for three phases.

34. Apart from the larger institutional reform efforts proposed above, the following action plan is proposed for EPP:

- a) provide regular training in ADB disbursement procedures;
- b) recruit an individual consultant for project financial accounting;
- c) obtain accounting software for project accounting;
- d) recruit and staff the internal audit department; and
- e) Act to address findings on internal audit reports as regularly reviewed by the Board of Directors.

B. Disbursement

35. The loan and grant proceeds will be disbursed in accordance with ADB's *Loan Disbursement Handbook* (2015, as amended from time to time),²⁰ and detailed arrangements agreed upon between the government and ADB. Online training for project staff on disbursement policies and procedures is available online.²¹ Project staff is encouraged to avail of this training to help ensure efficient disbursement and fiduciary control.

36. The project uses direct payment, commitment procedure and reimbursement procedures for all contracts.²²

37. Submission of Withdrawal Applications

- (i) For the contract packages that are being financed by ADB loan and grant, EPP will prepare and submit through MOF to ADB, one original copy of withdrawal application for each fund source and copies of required supporting documents.
- (ii) For Toktogul turbine-generator units replacement turnkey contracts that are financed by the ADB loan and grant as well as EDB loan, EPP will prepare and submit through MOF: (i) to ADB, one original copy of withdrawal application for each fund source for ADB loan/grant and EDB loan and copies of required supporting documents; and (ii) to EDB, one original copy of withdrawal application for the EDB loan and copies of required supporting documents. ADB will review each WAs and advise EDB to make payments required in such withdrawal applications subject to approval by EDB.
- (iii) For the MOE components that are grant-financed, withdrawal applications will be submitted to ADB through the MOF by MOE.

38. Before the submission of the first withdrawal application, the beneficiary should submit to ADB sufficient evidence of the authority of the person(s) who will sign the withdrawal applications on behalf of the borrower, together with the authenticated specimen signatures of each authorized person. The minimum value per withdrawal application is set in accordance

²⁰ Available at: http://www.adb.org/Documents/Handbooks/Loan_Disbursement/loan-disbursement-final.pdf.

²¹ Available at: http://wpqr4.adb.org/disbursement_elearning.

²² ADB funded portion will follow ADB commitment procedure. ADB's commitment procedure will not be used for EDB funded portion.

with the Loan Disbursement Handbook (i.e., \$100,000 equivalent). Individual payments below this amount should be paid by the executing agency and subsequently claimed from ADB through reimbursement, unless otherwise accepted by ADB.

C. Accounting

39. EPP will maintain, or cause to be maintained, separate books and records by funding source for all expenditures incurred on the project following International Public Sector Accounting Standards (IPSAS). The government will cause MOE to maintain, separate books and records by funding source for all expenditures incurred on their respective portions of the project following the government's laws and regulations. EPP and MOE will prepare consolidated project financial statements in accordance with the government's accounting laws and regulations which are consistent with international accounting principles and practices.

D. Auditing and Public Disclosure

40. The ADB grant proceeds will be utilized by EPP to recruit an external independent auditor following ADB's consultant recruitment guidelines, who shall carry out the audit of the project financial statements maintained separately by each party. MOE will support EPP in preparation and conducting a selection of the auditor. Representatives of MOE may be included in the bid evaluation committee. The EPP will cause the detailed project financial statements for its project component to be audited in accordance with International Standards on Auditing, by the independent auditor acceptable to ADB. The audited project financial statements together with the auditors' opinion will be submitted in the English language to ADB (and to EDB in the Russian language) within six months of the end of the fiscal year by the EPP. MOE will cause the detailed project financial statements for their project components to be audited in accordance with International Standards on Auditing, by an the same independent auditor, and submit to ADB within 6 months of the end of each financial year (in the English language).

41. The audited entity financial statement of EPP, together with auditor's report and management letter, will be submitted in the English language to ADB within 1 month after their approval by the relevant authority.

42. The audit report for the project financial statements will include a management letter and auditor's opinions, which cover (i) whether the project financial statements present an accurate and fair view or are presented fairly, in all material respects, in accordance with the applicable financial reporting standards; (ii) whether the proceeds of the {loan} {grant} were used only for the purpose(s) of the project; and (iii) whether the borrower or executing agency was in compliance with the financial covenants contained in the legal agreements (where applicable).

43. The government, EPP and MOE have been made aware of ADB's approach to delayed submission, and the requirements for satisfactory and acceptable quality of the audited project financial statements.²³ ADB reserves the right to require a change in the auditor (in a manner

²³ ADB's approach and procedures regarding delayed submission of audited project financial statements:

- (i) When audited project financial statements are not received by the due date, ADB will write to the executing agency advising that (a) the audit documents are overdue; and (b) if they are not received within the next 6 months, requests for new contract awards and disbursement such as new replenishment of imprest accounts, processing of new reimbursement, and issuance of new commitment letters will not be processed.
- (ii) When audited project financial statements are not received within 6 months after the due date, ADB will withhold processing of requests for new contract awards and disbursement such as new replenishment

consistent with the constitution of the borrower), or for additional support to be provided to the auditor, if the audits required are not conducted in a manner satisfactory to ADB, or if the audits are substantially delayed. ADB reserves the right to verify the project's financial accounts to confirm that the share of ADB's financing is used in accordance with ADB's policies and procedures.

44. Public disclosure of the audited project financial statements, including the auditor's opinion on the project financial statements, will be guided by ADB's Public Communications Policy 2011.²⁴ After the review, ADB will disclose the audited project financial statements and the opinion of the auditors on the project financial statements no later than 14 days of ADB's confirmation of their acceptability by posting them on ADB's website. The management letter, additional auditor's opinions, and audited entity financial statements will not be disclosed.²⁵

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- of imprest accounts, processing of new reimbursement, and issuance of new commitment letters. ADB will (a) inform the executing agency of ADB's actions; and (b) advise that the loan may be suspended if the audit documents are not received within the next 6 months.
- (iii) When audited project financial statements are not received within 12 months after the due date, ADB may suspend the loan.

²⁴ Public Communications Policy: <http://www.adb.org/documents/pcp-2011?ref=site/disclosure/publications>.

²⁵ This type of information would generally fall under public communications policy exceptions to disclosure. ADB. 2011. Public Communications Policy. Paragraph 97(iv) and/or 97(v).

VI. PROCUREMENT AND CONSULTING SERVICES

A. Advance Contracting and Retroactive Financing

45. All advance contracting and retroactive financing will be undertaken in conformity with ADB's *Procurement Guidelines* (2015, as amended from time to time)²⁶ and ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).²⁷ The issuance of invitations to bid under advance contracting and retroactive financing will be subject to ADB approval. The borrower, EPP, and MOE have been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

46. Advance contracting will be undertaken for the procurement of goods and works and recruitment of all consulting firms. Advertisement, invitation for bids, shortlisting, issuance of requests for proposals, technical and financial evaluations may take place prior to effectiveness of the loan/grant agreements.

47. Retroactive financing will be applied not exceeding 20% of the total ADB loan, incurred before loan effectiveness, but not more than 12 months before the signing of the loan agreement.

B. Procurement of Goods, Works and Consulting Services

48. All procurement of goods and works will be undertaken in accordance with ADB's *Procurement Guidelines* (2015, as amended from time to time).

49. EPP will use international competitive bidding (ICB) procedures for the procurement of goods and works. ADB's standard bidding documents for (i) Plant: Design, Supply and Installation and (ii) Large Works will be used.

50. Master bidding documents (MBDs) will be prepared before any contract specific procurement is advertised. Once approved, the MBD shall be mandatory for use in project. Should revisions be needed to the MBDs due to a change in detailed design, Employer's Requirements, change in scope or change in procurement arrangement, ADB must approve the revisions prior to use.

51. An initial 18-month procurement plan indicating threshold and review procedures, goods, works, and consulting service contract packages is in Section C.

52. All consultants will be recruited according to ADB's *Guidelines on the Use of Consultants* (2013, as amended from time to time).²⁸ Quality- and cost-based selection method (QCBS) method will be the used for recruiting consulting firms with a standard quality cost ratio of 90:10 due to the complex nature of the rehabilitation work and technology adopted in the project, thus the importance of quality. External auditing and public information program consultants will be selected using consultants' qualifications selection (CQS). PIU support consultant will be recruited using individual consultants selection (ICS). The terms of reference for all consulting services are detailed in Section D.

²⁶ Available at: <http://www.adb.org/Documents/Guidelines/Procurement/Guidelines-Procurement.pdf>

²⁷ Available at: <http://www.adb.org/Documents/Guidelines/Consulting/Guidelines-Consultants.pdf>

²⁸ Checklists for actions required to contract consultants by method available in e-Handbook on Project Implementation at: <http://www.adb.org/documents/handbooks/project-implementation/>

C. Procurement Plan

Basic Data

Project Name: Toktogul Rehabilitation Phase 3 Project	
Project Number: 49013-002	Approval Number:
Country: Kyrgyz Republic	Executing Agency: EPP, MOE
Project Procurement Classification: A	Implementing Agency:
Procurement Risk: Moderate	
Project Financing Amount: \$175.00 million ADB Financing: \$110.00 million EDB Financing: \$40.00 million Government Financing: \$25.00 million	Project Closing Date: 30 June 2023
Date of First Procurement Plan: 22 July 2016	Date of this Procurement Plan: 22 July 2016

ADB = Asian Development Bank, EDB = Eurasian Development Bank, EPP = Open Joint-Stock Company Electric Power Plants, MOE = Ministry of Economy.

1. Methods, Thresholds, Review and 18-Month Procurement Plan

a. Procurement and Consulting Methods and Thresholds

53. Except as the Asian Development Bank (ADB) may otherwise agree, the following process thresholds shall apply to procurement of goods and works.

Procurement of Goods and Works		
Method	Threshold	Comments
International Competitive Bidding (ICB) for Works	\$3,000,000	Prior review
International Competitive Bidding (ICB) for Goods	\$1,000,000	Prior review
Shopping for Works	Below \$100,000	Prior review
Shopping for Goods	Below \$100,000	Prior review

Consulting Services	
Method	Comments
Quality and Cost Based Selection (QCBS)	Prior review
Consultants' Qualifications Selection (CQS)	Prior review
Individual Consultant Selection (ICS)	Prior review

b. Goods and Works Contracts Estimated to Cost \$1 Million or More

54. The following table lists goods and works contracts for which the procurement activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (\$ million)	Procurement Method	Review (Prior / Post)	Bidding Procedure	Advertisement Date (quarter/year)	Comments
1	Toktogul turbine-generator units replacement (including associated auxiliary equipment)	Lot 1 : 127 Lot 2 : 97.2	ICB	Prior	Single Stage-Two Envelope (both lots to be evaluated as one single package)	Q3 2016 (joint tendering with Toktogul Rehabilitation Phase 2 Project. Lot 1 under Phase 2 and Lot 2 under Phase 3.	Prequalification of Bidders: No Bidding Document: Plant; To be financed by ADB and EDB
2	Civil structure	7.5	ICB	Prior	Single	Q1 2017	Bidding

	refurbishment				Stage, One-Envelope		Document: Large Works To be financed by ADB
3	Dam monitoring system	1.7	ICB	Prior	Single Stage, One-Envelope	Q2 2017	Bidding Document: Plant; To be financed by ADB

ADB = Asian Development Bank, HPP = hydroelectric power plant, ICB = international competitive bidding, EDB = Eurasian Development Bank, EPP = Open Joint-Stock Company Electric Power Plants.

c. Consulting Services Contracts Estimated to Cost \$100,000 or More

55. The following table lists consulting services contracts for which the recruitment activity is either ongoing or expected to commence within the next 18 months.

Package Number	General Description	Estimated Value (\$ million)	Recruitment Method	Review (Prior / Post)	Advertisement Date (quarter/year)	Type of Proposal	Comments
1	Project management consultant	3.7	QCBS	Prior	Q3 2016	Full Technical	International; quality cost ratio (90:10)
2	Business process assessment and management modernization	5.0	QCBS	Prior	Q3 2016	Full Technical	International; quality cost ratio (90:10)
3	Corporate financial audit	1.2	QCBS	Prior	Q4 2016	Full Technical	International; quality cost ratio (90:10)
4	Public information program	0.4	CQS	Prior	Q3 2016	Simplified Technical	National
5	Project financial statement audit for MOE and EPP	0.1	CQS	Prior	Q2 2017	Biodata Technical	International/national

CQS = consultant qualification selection, EPP = Open-Joint Stock Company Electric Power Plants, MOE = Ministry of Economy, PIU = project implementation unit.

d. Goods and Works Contracts Estimated to Cost Less than \$1 Million and Consulting Services Contracts Less than \$100,000 (Smaller Value Contracts)

56. The following table groups smaller-value goods, works and consulting services contracts for which the activity is either ongoing or expected to commence within the next 18 months.

Goods and Works								
Package Number	General Description	Estimated Value	No. of Contracts	Procurement Method	Review (Prior / Post)	Bidding Procedure	Advertisement Date (quarter/	Comments

Consulting Services							
Package Number	General Description	Estimated Value	Awarded Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Comments

b. Completed Contracts

Goods and Works								
Package Number	General Description	Estimated Value	Contract Value	Procurement Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Date of Completion	Comments

Consulting Services								
Package Number	General Description	Estimated Value	Contract Value	Recruitment Method	Advertisement Date (quarter/year)	Date of ADB Approval of Contract Award	Date of Completion	Comments

4. Non-ADB Financing

59. The following tables list the awarded and on-going contracts, and completed contracts.

60. The following table lists goods, works and consulting services contracts over the life of the project, financed by non-ADB sources.

Goods and Works				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Procurement Method	Comments

Consulting Services				
General Description	Estimated Value (cumulative)	Estimated Number of Contracts	Recruitment Method	Comments

5. Review of Contract Modifications

61. ADB will review contract modifications in accordance with the procedures set forth in the financing agreement between the Beneficiary and ADB.

D. Consultant's Terms of Reference

1. Project Management Consultant (international, 215 persons-months)

62. The objective of the executing agency, EPP, is to improve the technical and operational performance of the Toktogul HPP and overhaul the dam monitoring system in five dams across the Naryn cascade. The consultant will work with the PIU of EPP. Implementation of Phase 3 will be synchronized with Phase 2. Under the proposed Toktogul Rehabilitation Phase 3 Project, there are the procurement contracts: (i) Toktogul turbine-generator units 1 and 3 replacement, (ii) Toktogul civil structure refurbishment, and (iii) overhaul of dam monitoring system in Toktogul, Kurpsai, Tashkumyr, Shamaldy-Sai and Uch Kurgan dams, all the dams are located along the Naryn cascade. Toktogul HPP rehabilitation procurement will be combined with Phase 2, the consultant will work closely with Phase 3 project implementation consultant to ensure that implementation of turbine-generator units 1 and 3 is properly managed and synchronized.

a. Objective

63. The major assignments are: Successful implementation of the turnkey and large works contracts through provision of technical assistance to the PIU of EPP for the procurement and implementation of works. In particular the firm will be responsible for supporting PIU in project administration, design and engineering, services, contracting, management control, procurement and expediting of equipment, materials control, inspection of equipment prior to delivery, shipments, transportation, control of schedule and quality, pre-commissioning and completion, performance guarantee testing during construction and commissioning of the project and through the defects liability period.

b. Scope of Works

64. The scope of works shall include but not limited to:

Pre-Construction Phase

- (i) Prepare bidding document for (i) civil structure refurbishment and (ii) dam monitoring system;
- (ii) Assist PIU in tendering procedure for all contracts including preparation of Invitation to Bids, sharing information with potential bidders during the pre-bidding meeting;
- (iii) Assist PIU in providing clarifications to bidders during bid preparations, and issuing addenda to bidding documents, if required;
- (iv) Assist PIU in technical and financial evaluation of bids and prepare draft Technical Bid Evaluation Report and Financial Bid Evaluation Report in accordance with ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's Guide on Bid Evaluations (2010, as amended from time to time);
- (v) Assist PIU in issuance of notice of award to the winning bidder;
- (vi) Prepare the contract for contract signing; and
- (vii) Update Initial Environmental Examination (IEE) and Environmental Management Plan (EMP) accordingly.

Construction/Rehabilitation Phase

- (i) Supervision, inspection and monitoring of the civil, mechanical and electrical works of the Project to ensure that the works are carried out in accordance with

the agreed schedules, design and specifications, and that the quality meets at the minimum, the required technical standards, specifications, systems and procedures;

- (ii) Regularly review manufacturing schedules and delivery schedules of equipment by the contractor;
- (iii) Monitor manufacturing progress and works by regular inspections to ensure the compliance to specifications and specified standard;
- (iv) Assist PIU in implementation of EMP;
- (v) Perform environmental monitoring;
- (vi) Assist PIU in updating the IEE and EMP;
- (vii) Certify volume of works completed and/or as installed based on actual;
- (viii) Certify the payments to the contractors, after checking and verifying the contractor's measurements;
- (ix) Report regularly financial status of the project to PIU by:
 - a. Reporting the disbursement results and financial positions;
 - b. Actual cash flow position;
 - c. Performing detail variation analysis between estimated/budgeted position compared with the actual position;
 - d. Assessing future requirements and payments schedules; and
 - e. Recommending possible measures for reducing expenditures, if any.
- (x) Monitor compliance with environmental mitigation and management plans, and the contractor's health and safety plans;
- (xi) Preparation of work related certificates as appropriate;
- (xii) Review of suppliers equipment design and perform shop and/or witness tests/pre-delivery and on-site inspections and acceptance of the equipment as appropriate;
- (xiii) Review and approve erection and construction drawings to ensure technical compliance and compatibility with specifications and other requirements;
- (xiv) Review and approve factory testing procedures and factory test results submitted by the contractors;
- (xv) Witness factory testing of major equipment and issue corresponding certificates;
- (xvi) Review and approve commissioning test procedures submitted by the contractor
- (xvii) When works are ready for inspection and test for substantial completion:
 - a. Prepare a program for inspection and test;
 - b. Examine the works and assure that they are ready for operation; and
 - c. Issues taking over certificate to contractors, if the works are satisfactory for operation or instruct the contracts' remedial work and/or further test if failed the verification test.
- (xviii) Undertake the review, monitoring, supervision of the EPC Contractor's work-related occupational health and safety program activities. In coordination with the EPC contractor, recommend appropriate revision if deemed necessary
- (xix) Provide regular project reporting to EPP and other project stakeholders; and
- (xx) Any other works not sufficiently described in the scope of services, but can be reasonably inferred as required and necessary to be undertaken to complete the project are presumed included in the scope of works of the consultant.

Additional services

- (i) The supervision consultant may also be required by EPP to undertake additional services determined to be necessary to resolve any critical problems

as identified during the course of the implementation program provided, that such services are not reasonably covered by the scope of services in the contract.

c. Team Composition

65. The consultant should be a consulting engineering firm having adequate international experience in detailed design, selection, monitoring, supervision and coordination of contractors, commissioning, operation and maintenance of hydropower project. Specific experience is required in the area of the civil structure rehabilitation of live hydropower projects. Since the work will be carried out whilst Toktogul HPP powerhouse and switchyard are in operation, it is essential that the firm is familiar with the health, safety, and commercial operational aspects of working in close proximity to live electrical equipment. The consultant should meet ADB's eligibility criteria.

66. The following table give an estimate of the International and National Experts and person months required for the project

	Positions	International consultants	National Consultants
1	Team Leader	12	-
2	Deputy Team Leader	-	25
3	Resident site manager – hydropower plant civil structure specialist	22	-
4	Mechanical Engineer	10	10
5	Dam Safety Engineer	18	20
6	Civil Engineer	18	20
7	Hydro-mechanical engineer	10	10
8	Environmental, Health and Safety Expert	10	10
	Subtotal	100	100

Note: all international experts must spend at least 70% of time in the field (Bishkek or dam sites, resident site manager spend 100% of time in Kyrgyz Republic with majority of time on the hydropower plants.

67. The team will comprise a resident site team and visiting specialists. It is preferable that the international team leader, resident site manager and visiting specialist be drawn from the permanent staff of the consulting firm.

68. The terms of reference outlining the qualifications and specific areas of responsibility/job description for each expert are given below. In addition, the experts are expected to perform any other reasonable duty that may not be mentioned in the job description, but it is expected to be performed in an assignment of this nature.

d. Qualification, Experience and Detailed Tasks of Each Expert

69. The specific tasks and qualifications for international consultants are outlined below.

Position	Qualification	Description
Team Leader	The team leader will have a university degree in electrical/mechanical/civil engineering from a reputable university. He/she is preferred to have at least 10 years post graduate experience in design and construction supervision of hydropower plants, at least 3 years of which involved in supervision at senior level of the refurbishment of a hydropower plant of similar capacity to the Toktogul plant. He/she should have wide experience in mechanical, electrical or civil engineering aspects of similar projects as well as comprehensive understanding of the operational significance of the rehabilitation process. He should be aware of the issue relating to the health and safety of personnel working in close proximity to operating plant.	The team leader will be the primary interface between the consultant and EPP. In particular he will be responsible for: <ul style="list-style-type: none"> - Liaising with PIU throughout the assignment; - Managing the design and preparation of bid documents, bidding and contract award; and - Overseeing implementation of both contracts in accordance with the scope of services.
Resident site manager – hydropower plant civil structure specialist	The resident site manager will have a university degree in electrical/ mechanical engineering. He/she is preferred to have at least 8 years of post-graduate experience in design and construction supervision of hydropower plant, at least 3 years of involved in supervision at senior level of the refurbishment of a hydropower plant of similar capacity to the Toktogul plant. He/she should have wide experience in mechanical, electrical or civil engineering aspects of similar projects as well as comprehensive understanding of the operational significance of the rehabilitation process. He should be aware of the issue relating to the health and safety of personnel working in close proximity to operating plant.	Since he will have a long term presence on site the Resident Site Manager will be the main interface between the consultant and EPP whilst the team leader is not in Kyrgyz Republic. In particular the resident site manager will be responsible for: <ul style="list-style-type: none"> - Carrying out detailed site supervision by himself and his tea, acting under the team leader's overall management; - Issuing instructions to the contractors during the contract period, approve payment, issue variation orders, prepare and submit reports as defined; - Witnessing tests on commissioning and issuing the operational acceptance certificates; - Providing support to PIU during the Defect liability period and issue the Completion Certificate; - Delivering capacity building program to EPP staff; - Ensuring that the contractor provide adequate training to the EPP staff under their contract; and - Ensuring safety in the workplace.
Mechanical Engineer	The mechanical engineer will have a university degree in mechanical engineering from a reputable university, preferably with at least 8 years post graduate experience in large hydropower plant rehabilitation. Wide experience in mechanical engineering aspects of similar projects as well as comprehensive understanding of the operational significance of the rehabilitation process is an advantage.	He/she will review the design submitted by the turnkey contractor, support the team leader and electrical engineer and advice on mechanical aspects of the bid documents will make regular visit to site at key stages of both contracts.
Dam Safety Engineer	The dam safety engineer with have a university degree in engineering from a reputable university. He/she is preferred to have at least 8 years of graduate experience in the design, installation, testing and commissioning of dam safety and monitoring equipment. Wide experience in hydropower plant civil structure rehabilitation and dam safety assessment is an advantage.	The specialist will assist the team leader to finalize the bidding documents. He will provide assistance to PIU in the procurement of both turnkey contracts. Thereafter he will review the design submitted by the turnkey contractors, make regular visits to site at key stages.
Civil Engineer	The civil engineer will have a university degree in civil engineering from a reputable university. The specialist	The specialist will assist the team leader, the resident site manager and

	is preferred to have at least 10 years of post-graduate experience in rehabilitation of dams, civil structures, and powerhouses. Wide experience in civil engineering aspects of similar projects as well as comprehensive understanding of the operational significance of the rehabilitation process is an advantage.	hydro mechanical engineer to manage the civil engineering aspects of civil structure refurbishment and dam monitoring system (including preparation of bidding documents and procurement) .
Hydro-mechanical engineer	The hydro-mechanical engineers (gates) will have university degree in civil, mechanical or structural engineering from a reputable university. The expert is preferred to have at least 10 years of post-graduate experience in design, installation, testing and commissioning of hydraulic gates.	The specialist will assist the team leader, the resident site manager, civil engineer and dam safety engineer to manage the civil engineering aspects of civil structure refurbishment and dam monitoring system (including preparation of bidding documents and procurement).
Environment, health and safety expert	The expert will have a university degree in environmental sciences/ occupational health science from a reputable university. The specialist is preferred to have at least 10 years post graduate experience in the mitigation of environmental/social impacts caused through hydropower constructions contracts.	The expert will provide support and guidance to the national safeguard specialist to ensure that the consultant responds appropriately to the environmental, health, safety and social issues. Including review of the approval of the contractor's environmental mitigation plans and the monitoring of the contractors' compliance with the approved plans. He should ensure contractor adhere to international occupational health and safety regulations on site.
All national consultants	All national consultants are preferred to have relevant qualifications with at least 7 years of experience in the power sector.	The national team will assist the international experts.

e. Deliverables Requirements

70. The consultant shall provide the following reports:

- (i) Inception report.
- (ii) Monthly progress report.
- (iii) Quarterly progress report, to be prepared and submitted within one month from the end of the quarter that is being reported. The format of the progress reports shall be drafted by the consultant and endorsed by PIU and ADB, and they should include not limited to, physical progress against schedule and plan for next term, disbursement against schedule and plan for next term, quality test results, safety control, survey of quantity when required, environmental monitoring and any other issues be raised. Quarterly progress reports shall be in a format consistent with ADB's project performance reporting system.
- (iv) Annual report, to be submitted within one month from the end of the year that is being reported. Variation orders and any other documents deemed necessary by PIU and or ADB or EDB will be prepared. Consolidated annual reports will include (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions, (c) updated procurement plan and (d) updated implementation plan for next 12 months.
- (v) Semi-annual environmental monitoring report
- (vi) Completion report in a form acceptable to EPP, ADB and EDB to be submitted within one month after project completion.
- (vii) Other reports.

2. Business Process Assessment and Management Modernization (international, 100 person-months)

a. Objective

71. The objective of business operations assessment and management modernization is to assist the Government of the Kyrgyz Republic (i) to identify strengths, weaknesses, areas for improvement to improve the efficiency of the power sector through a comprehensive review of business operations of 8 state-owned power companies; and (ii) to assist EPP to implement the recommendations.

72. The eight state-owned power companies will consist of the following:

- (i) Two Generation - EPP and Chakan GES;
- (ii) Transmission - National Electric Grid of Kyrgyzstan;
- (iii) Four distribution companies: Severelectro, Vostokelectro, Oshelectro and Jalalabadelectro; and
- (iv) District Heating Network Company for Bishkek, Bishkekteploset.

73. MOE will engage an international consulting firm to conduct the assessment and provide assistance during the implementation of recommendations.

74. The consultants will provide detailed assessment of the internal and external business processes as well as working out of the comprehensive recommendations on improvement of the operational effectiveness of the energy sector companies. The consultants will also provide guidance, advisory (or called project management) during the implementation of the recommendations as identified during the assessment. The implementation of the recommendations would be considered as a follow up assignment.

b. Scope of Work and Deliverables

75. The Consultant shall provide assessment of the following:

- (i) Organizational structure
 - (a) Organizational structures of the companies
 - (b) Availability and efficiency of corporate management system
 - (c) Analysis of the interactions among various departments
 - (d) Communication and responsibilities of the regional branches
 - (e) Analysis of internal regulations
- (ii) Business operations
 - (a) Main operations
 - (b) Maintenance management
 - (c) Capital construction
 - (d) Procurement and logistics
 - (a) Finance
 - (b) Risk management
 - (c) Fee collection system
 - (d) Human resources management
 - (e) Information technologies management
 - (f) Health Safety Environment management
 - (g) Government relations (interaction with MOE, State Regulator, Government, National Energy Holding, Parliament, Office of the President)

- (h) External affairs and project implementation unit management
- (i) Management of auxiliary assets (resorts, hotels, etc. if any)
- (iii) IT and technical infrastructure
 - (a) Information infrastructure
 - (b) Communication system
 - (c) Software
 - (d) Technical equipment
- (iv) Legal compliance
 - (a) Base legislation analysis
 - (b) Requirements on obligatory licenses and permits
 - (c) Environmental compliance
 - (d) Labor code and social insurance
- (v) Key performance indicator (KPI) management structure
 - (a) Development of KPI management structure
 - (b) Implementation of KPI management structure

c. Independence

76. The consulting firm will be independent from any aspects of management or financial interest in the companies under the assessment and implementation. In particular, the consulting firm should be independent of the control of the companies. The consulting firm should not, during the period covered by the assessment and implementation, be employed by, or serve as director for, or have any financial or close business relationship with the companies. The consulting firm should not have any close personal relationships with any senior participant in the management of the companies. The consulting firm must disclose any issues or relationships that might compromise their independence.

d. Qualification and Experience

77. A reputable consulting firm will be engaged to perform the business operations assessment and management modernization. The consulting firm shall have experiences in reviewing business operations of power companies comparable in nature, size and complexity to the companies and ability to help the clients to implement the recommendations.

78. To this end, the consulting firm is required to provide curriculum vitae (CV) of the experts who will conduct the assessment and implementation, together with the CVs of managers, supervisors, and key personnel likely to be involved in the assessment and implementation. These CVs should include details of works carried out by these staff, including ongoing assignments.

3. Power Sector Public Information Program (National, 40 person-months)

a. Objective

79. The objective of the assignment is to conduct a Power Sector Public Information Program (PIP). The PIP is essential to: (i) increase public awareness and remove negative perception about power sector reforms of the government and (ii) educate the public on benefits to achieve from an effective tariff policy and efficient energy usage.

80. A local consulting firm is required to carry out the awareness program.

b. Scope of Works

81. The consultant will be working with public information program working group. The working group led by the MOE consist of representatives from: MOE (including regulatory and press unit), Prime Minister's Office, ADB, and World Bank.

82. The scope of services, to be performed in a period of approximately 1 year involves three phases:

- (i) Phase 1: desk review, public opinion survey;
- (ii) Phase 2: preparation of communication plan; and
- (iii) Phase 3: conducting the public information program based on communication plan.

c. Detailed Tasks

83. Phase 1: Inception Phase

- (i) Recruit a local energy specialist to understand the country energy sector and power sector technical issues. The main task of the local energy specialist is to guide the team on energy sector and power sector technical issues, he/she ideally should have an engineering background and experience working in the government or with donor's community. He/she also will brainstorm practical efficient energy usage that can be adopted by households in both rural and urban area (i.e., using energy-saving bulbs, in house temperature control during winter season).
- (ii) Consult with State Department on Regulation of Fuel-Energy Complex (regulator) regarding tariff policy and communication strategy to educate the public. Also review (with regulator), the benefit to achieve on effective tariff.
- (iii) Review on the Kyrgyz Republic ongoing energy sector development and reforms; consult with power companies and MOE on cause of power cuts, future power sector development plan and investment challenges.
- (iv) Review and interview relevant stakeholders on the cause of power thefts and corruption, and discuss best measures (in terms of public awareness) to encourage accurate electricity bill payment and eradicate corruptive practices in power companies.
- (v) Conduct a public opinion survey to: (a) measure the level of public trust towards government communication regarding the energy sector, (b) identify the reasons why the public has been opposing to the energy tariff increase, (c) identify the challenges that, in the public's opinion, the energy sector's facing, and (d) to identify the public's awareness and attitude (especially women) towards efficient energy usage practices.

84. Phase 2

- (i) Develop communication plan based on Phase 1 outputs. The consultant to recommend proper public awareness and media approach based on Phase 1 consultation and review.

85. Phase 3

- (i) Implementation of communication plan.
- (ii) Develop innovative and state-of-the-art information and campaign materials involving various media tools (TV, radio, print media, social media, website, etc.)

to effectively achieve targeted audiences (at least 75% of electricity subscribers and customers).

- (iii) Conduct a public opinion survey to measure the level of public's awareness, understanding and trust towards the power sector reform after the Consultant's completes the assignment.

86. Deliverables (indicative)

- (i) Public opinion survey report (baseline and after conducting PIP)
- (ii) Communication plan
- (iii) Innovative and state-of-the-art Information and campaign materials (TV, radio, print media, social media, website, etc.)
- (iv) Inception report
- (v) Bi-monthly progress reports
- (vi) Final report

b. Experience and Competencies of Firm

87. A national communication firm with at least 3 years of working experience as a public relations expert for public sector.

88. Local provincial knowledge is essential. All media campaign and information must be presented in both Kyrgyz and Russian language and following the Kyrgyz Media and Language law.

c. Consultants Qualification and Detailed Tasks

89. The national consulting firm, consisting of four experts, will provide a total of 40 person-months services; and the assignment will be undertaken over a 24 month period.

90. **Public Relations Specialist/Team Leader (14 person-months).** University degree or Diploma (preferably at Master's level) in Communication with at least 3 years of working experience as a public relation expert for public/private sector. He/she must be fluent in English, Russian and Kyrgyz Language. He/she is expected to:

- (i) Lead the team;
- (ii) Conduct Phase 1 review;
- (iii) Coordinate with other team members to develop a detailed communication plan and implementation schedule;
- (iv) Prepare inception, quarterly review report and final report; and
- (v) Prepare and implement Information and campaign materials.

91. **External Communication Specialist/Deputy Team Leader (10 person-months).** University degree or Diploma in Communication with at least 3 years experience of working as a public relation expert for public/private sector. He/she must be fluent in English, Russian and Kyrgyz Language.

- (i) Support team leader in conducting Phase 1 review;
- (ii) Develop a detailed communication plan; and
- (iii) Prepare and implement Information and campaign materials.

92. **Media Specialist (10 person-months).** University degree or Diploma in relevant field with at least 2 years experience of working as a media expert for public/private sector.

Experience in social media is a plus He/she must be fluent in English, Russian and Kyrgyz Language.

- (i) Support team leader in conducting Phase 1 review;
- (ii) Develop a detailed communication plan;
- (iii) Lead social research survey; and
- (iv) Prepare and implement Information and campaign materials.

93. **Graphics and Web Engineer (6 person-months).** University degree or Diploma in graphics design/software engineering/web development or relevant fields with at least 2 years experience of working with media for public/private sector. He/she should have experience in web design and development and print media; experience in social media is a plus. The specialist will prepare and implement the Information and campaign materials

4. Corporate Financial audit of power companies (international, 70 person-months)

a. Objective and Scope

94. The main objective of the assignment is to enable the auditor to express professional opinion the financial statements and compliance with the requirements of the International Financial Reporting Standards (IFRS) for eight state-owned companies (generation, transmission, distribution) in the Kyrgyz Republic.

95. The international auditor will conduct an audit of eight state-owned companies' financial statements for financial year 20xx and the following financial year 20xx, and submit the audited financial statements to the Director Generals of the companies: (i) audit report, (ii) annual audited financial statements, and (iii) management letter.

96. The auditor's examination should include an evaluation of the systems and operating procedures for accounting, custody of assets, control of environment and internal financial control, financial reporting, and related systems. An analysis of explanations submitted to the auditor and all information necessary to support the auditor's opinion and to construct the report of the auditor, shall be provided by responsible companies.

b. Auditing standards and program

97. The audit shall be carried out in accordance with International Standards on Auditing (ISA). These standards require that the auditor comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amount and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the project financial statements whether due to fraud or error. In making those risk assessment, the auditor considers the internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

c. Financial Reporting Framework

98. The audit will verify that the financial statements have been prepared in accordance with IFRS.

d. Accounting Policies and Changes

99. The auditor should comment on the accounting policies, and confirm the extent to which the financial statements have been applied. In particular, the auditor should note the impact on the financial statements arising from any material deviations from the agreed accounting standards. The auditor should also comment on any accounting policy changes, either during a fiscal year, or from one year to another.

e. Management Letters

100. The auditor shall provide a management letter containing, at a minimum, the following:

- (i) Any weaknesses in the accounting and internal control systems that were identified during the audit;
- (ii) Recommendations to rectify identified weaknesses;
- (iii) Management's comments on the audit recommendations along with the timeframe for implementation;
- (iv) The status of significant matters raised in previous management letters;
- (v) Matters that have come to the auditor's attention during the course of the audit;
- (vi) Any other matters that the auditor considers should be brought to the attention of the companies' management.

f. Other Matters

101. **Statement of Access.** The auditor will have full and complete access, at all reasonable times, to all records and documents including books of account, legal agreements, bank records, invoices, and any other information associated with the company operations and deemed necessary by the auditor.

102. The auditor will be assured rights of access to banks and depositories, consultants, contractors, and other persons or firms hired by the employer over the period under the audit review.

103. **Independence.** The auditor will be independent from any aspects of management or financial interest in the companies under audit. In particular, the auditor should be independent of the control of the companies. The auditor should not, during the period covered by the audit, be employed by, or serve as director for, or have any financial or close business relationship with the companies. The auditor should not have any close personal relationships with any senior participant in the management of the companies. The auditor must disclose any issues or relationships that might compromise their independence.

104. **Auditor and Audit Staff Competence.** The auditor must conform to the International Standards on Auditing (ISA). The auditor must be well-established and reputable. The auditor should have adequate staff, with appropriate professional qualifications and suitable experience, including experience in auditing the accounts of power companies comparable in nature, size and complexity to the company whose audit they are to undertake. To this end, the auditor is

required to provide CV of the auditors who will provide the opinions and reports, together with the CVs of managers, supervisors and key personnel likely to be involved in the audit work. These CVs should include details of audits carried out by these staff, including ongoing assignments.

g. Audit Deliverables

105. The firm shall deliver the following deliverables:
- (i) Audited Financial Statements. An auditor's opinion over the financial statements
 - (ii) Management Letter

h. Submission of Proposal and work Plan

106. The consulting firm will be invited to submit a proposal and a work plan to provide the audit services described below. Proposals should address, among other things:
- (i) the extent (if any) that auditor would not conform to the agreed auditing standards and indicate any alternative standards to which auditor may (be required to) conform;
 - (ii) whether the audit would be conducted as a completed audit (i.e., will the auditors carry out their audit after financial yearend, when the books of account are, or are being closed);
 - (iii) whether an audit carried out after financial year-end would be supplemented by one or more interim audits during a financial year. The principal purpose is to test ongoing systems and internal controls, and to relieve pressure on the staff of the companies and on the auditor at year-end;
 - (iv) the manner in which the auditor proposes to address any statutory requirements relating to audit or to which they may be implicitly bound by contractual obligations of the employer;
 - (v) procedural requirements for certain verification procedures (e.g., checking of stocks, inventories, assets, etc.);
 - (vi) specific actions required on the part of the employer (e.g., access to computer systems and records, disclosures);
 - (vii) discussions before signing the opinion and report on any matters arising from the audit, and with whom these discussions would be held; and
 - (viii) the timetable for provision of opinions and reports, including indications of audit commencement, time required for completing field work, preparation and submission of audit observations, etc.

5. National Environmental and Hazardous Waste Expert- PIU Support Consultant (national, 24 person-months)

107. The objective is to support the PIU of EPP in the environment aspect of ADB financed Toktogul Rehabilitation Phase 3 project. The consultant will work for the PIU and PMC in monitoring and supervising the implementation of Environment Management Plan (EMP).

108. The individual consultant will report to the head of the PIU of EPP. The duration of the assignment is 3 years. Minimum qualification: university degree with at least 5 years of working experience in the field of health, safety, and environment.

109. Specific tasks include:

- (i) Review and endorse the environmental section of periodical project progress reports, ensure the quality of the bi-annual environmental monitoring reports before submission to EPP for submitting it to ADB and public disclosure in accordance with ADB Safeguard Policy Statement requirements;
- (ii) Supervise the development of an Emergency Response Plan and be responsible for quality assurance before submission to EPP for approval and then to ADB;
- (iii) Coordinate with the EPP Department of Service of Reliability and Safety to ensure the compliance with EMP and the contractor's health and safety plans;
- (iv) Support project management consultant in reviewing the technical specifications and operating procedures related to the waste management and carry out the overall supervision of waste disposal;
- (v) Perform regular site audits including project site, storage area, and the roads used for transportation of equipment to the project site and transportation of oils and other wastes from the project site to the storage and disposal sites, to ensure that all mitigation measures are implemented adequately. In case of discrepancies the consultant shall report immediately to EPP for implementing proper actions to establish the compliance with the EMP; and
- (vi) Supervise, implement and review the updated Initial Environmental Examination (IEE) as necessary.

6. National Procurement Expert – PIU Support Consultant (national, 24 person-months)

110. National Procurement Specialist will be hired for assistance project implementation under the Toktogul Rehabilitation Phase 3 project. The consultant will be reported directly to the PIU of EPP and MOE. Minimum qualification: university engineering degree with at least 5 years of working experience in energy sector.

111. Specific tasks include:

- (i) Assist in preparation of all procurement and consultant recruitment related communication with ADB, consulting firms in accordance with ADB's Guidelines on the Use of Consultants, and ADB's Guidelines in Procurement. Activities includes : prepare advertisement and expression of interest; prepare request for proposals; assist the [EPP, MOE] in conducting technical and financial evaluation of proposals and in preparing technical and financial evaluation report; assist in holding of Consultant Selection Committee meeting(s) and preparation of required documents; assist in consolidating Submission 1-4 for submission to ADB; and coordinate and facilitate communication between ADB and [EPP, MOE] on Submission 1-4, Assist [EPP, MOE] in holding negotiations with the most technical responsive bidder and in preparing the required documents for such negotiations; assist in finalizing of contract and issuance of notice to proceed to winning consultant; assist in preparation of contract variation(if needed);
- (ii) Prepare all required documents necessary for carrying out of international and local bids for procurement of international and local consultants' services, goods and construction work;
- (iii) Assist PIU to carry out bids and prepare reports on bids;
- (iv) Assist PIU in contract management (contract preparation, signing, supervise the execution of contracts, amending, closeout, etc.);
- (v) Ensures that the project activities comply with conditions set out in the Financing Agreement between the government and ADB; and

- (vi) Any other procurement related work as and when requested by [EPP, MOE].

7. National Financial Management Expert – PIU Support Consultant (national, 24 person-months)

112. National Financial Management Expert will be hired for assistance project implementation under the Toktogul Rehabilitation Phase 3 project. The consultant will be reported directly to the PIU of EPP and MOE. Minimum qualification: university degree in accountancy with at least 5 years of working experience in financial/energy sector.

113. Specific tasks include:

- (i) Support preparation of EPP corporate financial statement in accordance with IFRS reporting system;
- (ii) Establishment and maintenance of quality financial management system on the project including budgeting, accounting, internal control, preparation of reports, and flow of funds satisfying ADB;
- (iii) Maintenance of the ADB project financial statement system;
- (iv) Ensure proper management of project funds and their payment in accordance with the requirements of the accounting and financial procedures of ADB and the Kyrgyz Republic;
- (v) Ensure timely reporting of financial activities and monitoring and the provision of all information, documents for internal and external auditors of the project;
- (vi) Preparation of quarterly financial reports;
- (vii) Preparation of annual financial report and explanatory notes in accordance with ADB requirements;
- (viii) Be responsible for timely conducting of project financial statements audits by independent auditors and for the timely provision of the auditors' report to the ADB and the Government of the Kyrgyz Republic;
- (ix) Monthly preparation of the general ledger to ensure the accuracy and completeness of accounting operations by pointing and correcting any errors and distortions;
- (x) Monitoring the status of the budget for project components and expenditure categories and reporting to the head of PIU for any significant differences and make recommendations for appropriate action;
- (xi) Maintenance of the computer based accounting system (1C Accounting program) which helps to work out internal financial reports and which ensure timely delivery of internal reports in a form consistent with the requirements of ADB and other donors, and in accordance with the requirements of project financial reporting;
- (xii) Preparation of applications for withdrawals from the project account in accordance with the guidance on disbursement and the ADB requirements;
- (xiii) Ensure proper operation of bank accounts of the project, including the special account and project accounts in accordance with the procedures of accounting and internal control;
- (xiv) Maintain records and control of the basic funds of projects and participate in the annual commission on the inventory;
- (xv) Performance of other duties as instructed by project director; and
- (xvi) Ensures that the project activities comply with conditions set out in the Financing Agreement between the government and ADB.

VII. SAFEGUARDS

114. The project is classified as environmental category B under ADB's Safeguard Policy Statement (SPS 2009). An initial environmental examination (IEE) including an EMP was prepared to meet requirements of SPS 2009 and national regulations, and disclosed per ADB public disclosure requirements. As necessary, the IEE will be updated by the PIU and the PMC based on detailed design by the turnkey contractor.

115. The main environmental impacts of the project are related to: (i) occupation health and safety at the project site, (ii) management of the used oil and grease wastes, (iii) disposal of scrap metal and other solid waste, (iv) civil works of dam refurbishment, and (v) transportation of construction materials and heavy equipment to the project site, as well as generated wastes out of the project site. The EMP specifies adequate mitigation measures and a monitoring plan to address these impacts.

116. EPP will submit semi-annual safeguard monitoring reports within 30 days after reporting period to ADB and disclose relevant information from such reports to affected persons promptly upon submissions. The PIU will be responsible for EMP implementation with assistance from the project management consultant and staff of EPP Department of Service of Reliability and Safety. An environmental and hazardous waste management specialist will be hired to work in PIU for building in-house capacity of EPP during the implementation of the whole Toktogul program. The consultant will receive on-the-job training from PMC environmental specialists and will ensure EPP in-house capacity for environmental and hazardous waste management in place before commencement of the construction contracts.

117. Environmental mitigation measures will be included in the bidding documents. Environmental monitoring will be performed by the PMC. The cost for implementing the EMP will be covered by the loan and the grant. The costs of mitigation measures will be included in the turnkey contract, and the cost for environmental monitoring will be included in the consulting services of the PMC. EPP is responsible for transportation from the storage site and final disposal of scrap metals and released oils.

118. **Prohibited investment activities.** Pursuant to ADB's SPS 2009, ADB funds may not be applied to the activities described on the ADB Prohibited Investment Activities List set forth at Appendix 5 of the SPS 2009.

119. **Involuntary resettlement.** The project is classified as Category C for both involuntary resettlement and indigenous people under ADB's SPS 2009. A due diligence report has been prepared to support the C categorization. All civil works will be implemented within the confines of the existing Toktogul HPP where no land acquisition or livelihood impacts will occur. A transport management plan will be developed by the turnkey contractor for delivery of turbines and other oversized materials and equipment. The plan will be coordinated by EPP together with the National Traffic Police and local governments.

120. **Indigenous peoples.** The project is classified as Category C under ADB's SPS 2009. The project is not expected to affect Indigenous people as defined under the SPS.

VIII. GENDER AND SOCIAL DIMENSIONS

121. **Gender.** The project is gender neutral, and monitoring is not required.

122. **Social Dimensions.** The project does not entail impacts on affordability or operational employment opportunities. During construction, the civil works contractor will be required to ensure equal opportunities for all social groups, equal work regardless of gender, and prohibition of child labor. The contractor will also be required to undertake HIV/AIDS awareness activities with imported workers.

IX. PERFORMANCE MONITORING, EVALUATION, REPORTING AND COMMUNICATION

A. Project Design and Monitoring Framework

Impact the Project Is Aligned with			
Increased reliability of national and regional power systems (National Sustainable Development Program, 2013–2017 ^a)			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome Operational performance of the Kyrgyz Republic power sector improved	By 2023 a. Domestic supply increased to 12,000 GWh (2014 baseline: 10,147 GWh) b. Efficiency of Toktogul turbine-generator units 1 and 3 increased by 2.5 percentage points (2015 baseline: 90%)	a. EPP annual report b. Toktogul annual operations report	Supply is reduced due to reduced water volume.
Outputs 1. Toktogul HPP and civil structures rehabilitated 2. Dam monitoring system overhauled 3. Public knowledge about the power sector reform and benefits improved 4. Governance and management procedure of power sector enhanced	1. Turbine-generator units 1 and 3 (including associated auxiliary equipment) installed and upgraded to 360 MW each by 2022 (2015 baseline: 300 MW) 2. Dam monitoring systems in Kurpsai, Shamaldy-Sai, Tashkumyr, Toktogul, Uch Kurgan dams upgraded by 2020 (2015 baseline: 0) 3. At least 2 TV shows and 3 newspaper articles with gender-sensitive messages aired and published by 2018 (2015 baseline: 0) 4a. Financial audits and business operation assessments of 8 selected power and heat companies conducted by 2018 (2015 baseline: 0) 4b. Management modernization program for EPP implemented by 2022	1. Commissioning certificate 2. Commissioning certificate 3. Published newspaper articles and pamphlets, and aired television coverage 4a. Power companies' annual report 4b. EPP annual report	Need for additional rehabilitation is identified during execution. Prices of commodities and raw materials rise more than budgeted.

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
	(2015 baseline: 0)		
Key Activities with Milestones			
<p>Output 1: Toktogul HPP and civil structures rehabilitated</p> <p>1.1 Prepare and finalize bidding documents (Q3 2015–Q3 2016, advance action)</p> <p>1.2 Bidding and award of turnkey contract (Q3 2016–Q4 2017)</p> <p>1.3 Bidding and award of civil structure refurbishment contract (Q3 2017–Q1 2018)</p> <p>1.4 Refurbish civil structures (Q1 2018–Q2 2020)</p> <p>1.5 Commission units 1 and 3 (Q2 2021–Q4 2022)</p> <p>Output 2: Dam monitoring system overhauled</p> <p>2.1 Prepare bidding documents (Q3 2016–Q2 2017)</p> <p>2.2 Award turnkey contracts (Q2 2017–Q1 2018)</p> <p>2.3 Refurbish dam monitoring system in 5 dams (Q1 2018–Q2 2020)</p> <p>Output 3: Public knowledge about the power sector reform and benefits improved</p> <p>3.1 Conduct needs assessment (Q1 2017–Q2 2017)</p> <p>3.2 Implement public information program (Q2 2017–Q4 2018)</p> <p>Output 4: Governance and management procedure of power sector enhanced</p> <p>4.1 Conduct financial audit and business operation assessments of 8 state-owned power and heat companies (Q2 2017–Q2 2018)</p> <p>4.2 Prepare management modernization program (Q2 2018–Q4 2018)</p> <p>4.3 Implement management modernization program for EPP (Q1 2019–Q1 2022)</p>			
<p>Inputs</p> <p>ADB: \$60,000,000 (ADF loan)</p> <p>ADB: \$50,000,000 (ADF grant)</p> <p>Government: \$25,000,000</p> <p>Eurasian Development Bank: \$40,000,000 (loan)</p>			
<p>Assumptions for Partner Financing</p> <p>Not applicable</p>			

ADB = Asian Development Bank, ADF = Asian Development Fund, EPP = Open Joint-Stock Company Electric Power Plants, HPP = hydroelectric power plant, GWh = gigawatt-hour, MW = megawatt, Q = quarter.

^a Government of the Kyrgyz Republic. 2013. *National Strategy of Sustainable Development for 2013–2017*. Bishkek. (approved by Presidential Decree on 21 January 2013).

Source: Asian Development Bank.

B. Monitoring

123. **Project performance monitoring.** Following indicators will be updated in the quarterly progress reports and at the time of semi-annual meetings and the midterm review expected in 2 years from the date of project effectiveness.

Indicator	Units	EA responsible for data collection and Reporting
• Additional generating capacity by Toktogul HPPs	MW	EPP
• Load factor for Toktogul HPPs	%	EPP
• Monthly volume of power traded within Kyrgyz Republic, by source	kWh/month, \$/kWh, \$ month	MOE from EPP
• Monthly volume of power traded between Kyrgyz Republic and CAPS	kWh/month, \$/kWh, \$ month	MOE from EPP
• EPP financial statement	n/a	EPP

EPP = Open Joint-Stock Company Electric Power Plants, HPP = hydroelectric power plant, kWh = kilowatt-hour, MOE = Ministry of Economy, MW = megawatt.

124. **Compliance monitoring.** Loan and grant covenants (policy, legal, financial, economic, environmental, and others) will be monitored through semi-annual project reviews and the midterm review.

125. **Environmental monitoring.** Monitoring will be performed by the PMC and reported to PIU. Monitoring results and the implementation of mitigation measures will be included in the project quarterly progress reports and submitted to the PIU. With assistance from the PMC, the PIU is responsible for development, in-country disclosure, and submission to ADB of semi-annual environmental monitoring reports.

126. **Gender and social dimensions monitoring.** Monitoring is not required for gender as the project does not have a gender element. Monitoring on equal employment opportunities for all social groups, equal pay for equal work regardless of gender, and prohibition of child labor will be monitored by the PMU and EPP's PIU. The monitoring results will be included in the quarterly progress reports, and semi-annual environmental reports.

C. Evaluation

127. **Inception Mission.** ADB will field an inception mission after loan and grant agreement signing to (i) establish a working relationship between ADB and the executing agencies; and (ii) to ensure that the borrower and executing agencies understand ADB's procedures.

128. **Review Missions.** ADB will field review missions at least once a year to review overall implementation of the project and update project implementation schedule based on mission findings.

129. **Midterm Review Mission.** ADB will field a midterm review mission after 2 years of loan/grant signing to assess whether attainment of the project's immediate objective (purpose in terms of the design and monitoring framework) is still likely.

130. **Project Completion Review Mission.** ADB will field a project completion review (PCR) mission upon physical completion of the project to commence preparation of ADB's project completion report. MOE, in coordination with EPP, will submit a project completion report to ADB within 6 months of physical completion of the project.²⁹

D. Reporting

131. EPP and MOE will provide ADB with (i) quarterly progress reports, including a section on safeguard compliance, in a format consistent with ADB's project performance reporting system; (ii) bi-annual environmental monitoring reports within one month after each half of the calendar year and post-construction environmental audit after project completion; (iii) consolidated annual reports including (a) progress achieved by output as measured through the indicator's performance targets, (b) key implementation issues and solutions; (c) updated procurement plan, and (d) updated implementation plan for next 12 months; and (iv) a project completion report within 6 months of physical completion of the Project. To ensure projects continue to be both viable and sustainable, project financial statements and audited corporate financial statements of EPP together with the associated auditor's report, should be adequately reviewed.

132. Each executing agency (EPP and MOE) is responsible for submission of reports to ADB for their components in Russian and English languages. MOE is responsible for preparation and submission to ADB of consolidated annual reports and project completion report. EPP shall prepare and submit to MOE their section of the consolidated reports in a timely manner.

E. Stakeholder Communication Strategy

133. Project information will be strategically disseminated through media at main milestones including loan signing, contract awards, and project completion.

134. The following table outlines the framework of communication strategy to be adopted for the project.

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Project Information Documents (PID)	ADB website	ADB	Initial PID no later than 30 calendar days of approval of the concept paper, quarterly afterwards.	General public
Design and Monitoring Framework (DMF)	ADB's website	ADB	Draft DMF after post fact-finding mission	Project-affected people
Environment Impact Assessment	ADB's website	ADB	At least 120 days before Board consideration	General public, project-affected people in particular
Resettlement Planning Documents	ADB's website	ADB	Post fact-finding mission	General public, project-affected people in particular

²⁹ Project completion report format available at: <http://www.adb.org/Consulting/consultants-toolkits/PCR-Public-Sector-Landscape.rar>

Project Documents	Means of Communication	Responsible Party	Frequency	Audience(s)
Report and Recommendations of the President	ADB's website	ADB	Within 2 weeks of Board approval of the loan	General public
Legal Agreements	ADB's website	ADB	No later than 14 days of approval of the project	General public
Initial Poverty and Social Assessment	ADB's website	ADB	Within 2 weeks of completion	General public, project-affected people in particular
Documents produced under Technical Assistance	ADB's website	ADB	Within 2 weeks of completion	General public
Project Administration Manual	ADB's website	ADB	After loan negotiations	General public, project-affected people in particular
Social and Environmental Monitoring Reports	ADB's website	ADB	Routinely disclosed, no specific requirements	General public
Major Change in Scope	ADB's website	ADB	Within 2 weeks of approval of the change	General public
Progress Reports	ADB's website	ADB	Within 2 weeks of circulation to Board or management approval	General public
Completion Reports	ADB's website	ADB	Within 2 weeks of circulation to Board for information	General public
Evaluation Reports	ADB's website	ADB	Routinely disclosed, no specific requirements	General public

ADB = Asian Development Bank, DMF = design and monitoring framework, PID = project information documents.

135. A grievance redress mechanism (GRM) will be established and a public communication program (PCP) will be developed by EPP throughout the Project. The design of GRM was proposed in the IEE Phase 1. PCP will be developed by the PIU environment and waste management specialist. Grievance redress committees will be in place to receive and resolve complaints, as well as to act upon stakeholders' reports of irregularities on project-related matters, including grievances concerning land donation procedures. EPP will widely publicize the existence of this mechanism to ensure that stakeholders are aware that a venue is available to address concerns or grievances relating to fraud, corruption, abuse, and any other aspects of project implementation.

X. ANTICORRUPTION POLICY

136. ADB reserves the right to investigate, directly or through its agents, any violations of the Anticorruption Policy relating to the project.³⁰ All contracts financed by ADB shall include provisions specifying the right of ADB to audit and examine the records and accounts of the executing agency and all project contractors, suppliers, consultants, and other service providers. Individuals and/or entities on ADB's anticorruption debarment list are ineligible to participate in ADB-financed activity and may not be awarded any contracts under the project.³¹

137. To support these efforts, relevant provisions are included in the financing agreement/regulations and the bidding documents for the project. Procurement will follow ADB's Procurement Guidelines (2015, as amended from time to time), consultant selection will adopt ADB's Guidelines on the Use of Consultants (2013, as amended from time to time), and disbursement will be made in accordance with ADB's disbursement policies, guidelines, practices, and procedures.

138. MOE and EPP shall ensure that its website provide updated, detailed information on implementation of the project, specifically procurement related information, including the list of participating bidders, name of the winning bidder, basic details on bidding procedures adopted, amount of each contract awarded, and adequate details of the goods, works and consulting services procured for the project.

139. Project information will be strategically disseminated through media at main milestones including loan signing, contract awards, and project completion.

140. ADB's Anticorruption Policy designates the Office of Anticorruption and Integrity (OAI) as the point of contact to report allegations of fraud or corruption among ADB-financed projects or its staff. OAI is responsible for all matters related to allegations of fraud and corruption. For a more detailed explanation refer to the Anticorruption Policy and Procedures. Anyone coming across evidence of corruption associated with the project may contact the Anticorruption Unit by telephone, facsimile, mail or email at the following numbers/addresses:

by email at integrity@adb.org or anticorruption@adb.org

by phone at +632 632 5005

by fax to +632 636 2152

by mail at the following address (Please mark correspondence Strictly Confidential)

Office of Anticorruption and Integrity
Asian Development Bank
6 ADB Avenue, Mandaluyong City
1550 Metro Manila, Philippines

³⁰ Anticorruption Policy: <http://www.adb.org/Documents/Policies/Anticorruption-Integrity/Policies-Strategies.pdf>

³¹ ADB's Integrity Office web site: <http://www.adb.org/integrity/unit.asp>

XI. ACCOUNTABILITY MECHANISM

141. People who are, or may in the future be, adversely affected by the project may submit complaints to ADB's Accountability Mechanism. The Accountability Mechanism provides an independent forum and process whereby people adversely affected by ADB-assisted projects can voice, and seek a resolution of their problems, as well as report alleged violations of ADB's operational policies and procedures. Before submitting a complaint to the Accountability Mechanism, affected people should make a good faith effort to solve their problems by working with the concerned ADB operations department. Only after doing that, and if they are still dissatisfied, should they approach the Accountability Mechanism.³²

³² For further information see: <http://www.adb.org/Accountability-Mechanism/default.asp>.

XII. ASSURANCES

142. The government will ensure and will cause EPP to ensure that the PIUs are adequately staffed and equipped carry out the assigned tasks and function until the respective project components are completed; and

143. The government will ensure that MOE designates a qualified and experienced staff as the focal point for consultant recruitment and contract supervision of (i) entity financial audit, (ii) business operation assessment and management modernization and (iii) public information program and to notify ADB promptly upon any replacement of such focal point until the project component is completed.

Counterpart Funding and Budgetary Process

144. The government will (i) make available and release all counterpart funding (comprising financing charges during implementation and taxes and duties) promptly as required for purposes of timely and successful project implementation.

145. The government will ensure that the project is included in the state budget as necessary to ensure timely disbursement of project expenditures.

146. The government will ensure that (a) no taxes, duties or other mandatory payments are levied on the project expenditure within its territory; or (b) EPP has other financing resources sufficient to cover the cost of such taxes, duties or other mandatory payments.

147. In addition to the foregoing, the government will ensure that EPP has sufficient funds to satisfy its liabilities arising from any works and goods contract.

Operations

148. The government will ensure, or will cause EPP to ensure, that qualified and experienced staffs are made available for the effective operation and maintenance of the project facilities.

149. The government will cause EPP to install, equip, operate, maintain and manage the project facilities in compliance with applicable standards and best international practices.

150. The government will ensure, or will cause EPP to ensure, that ADB's consent is obtained at least 6 months prior to the implementation of any of the following: (i) any change in ownership of any asset, facility or structure financed under the Project; (ii) any sale, transfer, or assignment of interest or control in any asset, facility or structure financed under the project; or (iii) any lease or other contract or modification of the functions and authority of EPP over operation and maintenance of any such asset, facility or structure financed under the Project. The government will ensure, or will cause EPP to ensure, that any such changes will be carried out in a legal and transparent manner.

151. The government will ensure and will cause EPP to ensure that annual external audits of the project financial statements by an independent auditor acceptable to ADB will be carried out in respect of financial year 2016 and onwards during project implementation for EPP and MOE, and submitted to ADB (in the English language) together with the Management Letter and the auditors' opinion on the use of loan proceeds within 6 months after the close of each financial year. For EPP, the corporate audited financial statements and the auditors' report, together with

the auditors' opinion on EPP's compliance with the financial covenants, all in the English language, should be submitted within one month after its approval by the relevant authority.

Financial Covenants

152. The government will cause EPP to ensure that, except as ADB may otherwise agree:
- (i) from Financial Year 2019 and for each Financial Year thereafter, the free cash flows of EPP for the current Financial Year shall be at least 1.3 times the debt service requirements for the same period on all debt based on EPP's entity financial statements be prepared in accordance with IFRS; and
 - (ii) from Financial Year 2019 and for each Financial Year thereafter, the free cash flows of EPP from operations after debt service is at least 20% of the average capital expenditure for the previous Financial Year, current Financial Year and (based on projections) the following Financial Year;
 - (iii) from Financial Year 2019 and for each Financial Year thereafter its debt does not exceed 70% of debt and equity. Debt is defined as any debt that is outstanding for more than 12 months as of the balance sheet date. Equity includes equity and reserves, net of any accumulated losses; and
 - (iv) from Financial Year 2019 and for each Financial Year thereafter, its current ratio (being the ratio of current assets to current liabilities) is maintained at no less than 1.

Operational/Sector Performance Covenants

153. The government will ensure that (a) tariffs in the electricity and heating sector will be revised in accordance with the Medium Term Tariff Plan as approved by ordinance of the government dated 30 November 2014 No. 660; (b) a least 60% of the aggregate incremental tariff that accrues to the electricity and heat sectors due to implementation of the Medium Term Tariff Policy are transferred to EPP until such time that EPP is in a position to meet the financial covenants.

154. The government will take necessary actions so that, by December 2019 the independent settlement center responsible for monitoring energy flows and ensuring appropriate accounting and payment becomes fully operational; and

155. The government, through MOE, will keep ADB fully informed of key power sector policy and restructuring reforms including reforms pertaining to the tariff policy.

Safeguards

156. The government will ensure, or cause EPP to ensure, that the preparation, design, construction, implementation, operation and decommissioning of the project and all project facilities comply with (a) all applicable laws and regulations of the Kyrgyz Republic relating to environment, health and safety; (b) the environmental safeguards requirement as set out in the SPS 2009; and (c) all measures and requirements set forth in the IEE, the EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.

157. The government will cause EPP to ensure that (a) released oils and scrap metal are safely kept at the onsite storage area; and (b) recycling and disposing of oils and scrap metals is performed by companies licensed to perform such activities.

158. The government will make available, or cause EPP to make available, necessary budgetary and human resources to fully implement the EMP.

159. The government will ensure and will cause the EPP to ensure that all bidding documents and contracts for works contain provisions that require contractors to:

- (i) comply with the measures relevant to the contractor set forth in the IEE and the EMP and any corrective or preventative actions set forth in a Safeguards Monitoring Report;
- (ii) make available a budget for all such environmental and social measures; and
- (iii) provide the government with a written notice of any unanticipated environmental, resettlement or indigenous peoples risks or impacts that arise during construction, implementation or operation of the Project that were not considered in the IEE and the EMP;

160. The government will cause EPP to do the following:

- (i) submit semi-annual safeguards monitoring reports to ADB and disclose relevant information from such reports to affected persons promptly upon submission;
- (ii) if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan; and
- (iii) report any actual or potential breach of compliance with the measures and requirements set forth in the EMP promptly after becoming aware of the breach.

161. The government will ensure and will cause EPP to ensure that Project implementation does not involve any land acquisition and/or resettlement impacts within the meaning of the SPS. In the event that any land acquisition and/or resettlement impacts are identified during Project implementation, the government will ensure and will cause EPP to ensure that such impacts are addressed in accordance with SPS 2009, including the preparation of a land acquisition and resettlement plan in consultation with the affected people in accordance with the SPS.

Labor, Health and Safety

162. The government will cause EPP to ensure that contractors engaged under the Project (i) comply with core labor standards and all applicable national labor laws and regulations; (ii) use their best efforts to employ women and local people, including disadvantaged people, living in the vicinity of the project; (iii) provide equal pay to men and women for work of equal type; (iv) provide and adequately equip first-aid, health and sanitation, and personal hygiene facilities for male and female workers at the project site; (v) carry out HIV/AIDS awareness programs for laborer and disseminate information at worksites on risks of sexually transmitted diseases and HIV/AIDS for construction workers, as part of the health and safety program at campsites during the construction period; (vi) maximize female training and employment; (vii) abstain from child labor and forced labor; and (viii) allow freedom of association and effectively recognize the right to collective bargaining. Relevant contracts financed under the Project must include specific clauses on these undertakings.

Governance and Anticorruption

163. The government will ensure and will cause EPP to ensure that updated information on the project, reflecting the performance of the Project, business opportunities, bidding process and guidelines, outcome of biddings and summary progress reports of the Project, is disclosed on EPP's and MOE's websites in a timely manner.

164. The government will, and will ensure that EPP, comply with ADB's Anticorruption Policy (1998, as amended to date). The government acknowledges, and will ensure that EPP acknowledges, that ADB reserves the right to investigate, directly or through its agents, any alleged corrupt, fraudulent, collusive or coercive practices relating to the project. The government and EPP will cooperate fully with any such investigation and to extend all necessary assistance.

165. The government will ensure and will cause EPP to ensure that all contracts financed by ADB under the project include provisions specifying ADB's right to audit and examine the records and accounts of EPP, all contractors, suppliers, consultants and other service providers as they relate to the project.

Gender and Development

166. The government will ensure that the principles of gender equity aimed at increasing Project benefits and impacts on women in the project area consistent with ADB's Policy on Gender and Development (1998) are followed during implementation of the project.

EDB Financing

167. The government will ensure that, in the event the EDB financing will not materialize, the necessary financing is provided either by the government from its own resources or from other external sources for successful implementation of the project. Alternatively, the government and ADB will consider reducing the scope of the project.

XIII. RECORD OF PAM CHANGES