



Project Information Document/ Identification/Concept Stage (PID)

Concept Stage | Date Prepared/Updated: 24-Aug-2019 | Report No: PIDC194296



BASIC INFORMATION

A. Basic Project Data

Project ID	Parent Project ID (if any)	Environmental and Social Risk Classification	Project Name
P171248		Substantial	Support for Preparation of Rural Electrification and Sebzor HPP Projects in GBAO
Region	Country	Date PID Prepared	Estimated Date of Approval
EUROPE AND CENTRAL ASIA	Tajikistan	24-Aug-2019	
Financing Instrument	Borrower(s)	Implementing Agency	
Investment Project Financing	Ministry of Finance	Pamir Energy Company, Ministry of Energy and Water Resources	

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PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	0.50
Total Financing	0.50
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	0.50
Regional Program on Central Asia - Energy & Water Developmen	0.50

B. Introduction and Context

Country Context

Real GDP growth rate increased to 7.3 percent in 2018, up from the 6 percent in the immediate aftermath of the post-2014 resource price shock, but economic conditions are volatile. The increase in growth was supported by the traditional drivers: remittance-driven consumption and public investments. The somoni-denominated value of remittances from, principally, Russia have fluctuated between one-quarter



and one-half of GDP, following international oil price fluctuations and the Russian business cycle. Fiscal revenues, reliant on import-related value-added tax (VAT) have fluctuated accordingly, affecting public expenditures and deficits. Following the commodity price shock in 2014, and subsequent stagnation of the Russian economy, Tajikistan went through a cumulative 45 percent decline of both remittances and imports, which has been partially reversed, as of 2017, by rising energy prices.

The combination of prudent monetary policy and lower imported food prices have resulted in subsiding inflationary pressures. Relatively stable exchange rates from prudent monetary policy and the availability of food imports from Uzbekistan since the re-opening of bilateral borders has led to a decline in the consumer price inflation from 7.3 percent in 2017 to 3.9 percent in 2018.

The authorities have taken steps to reverse the counter-cyclical fiscal expansion during 2016–17 and restore macro-fiscal stability. The fiscal deficit is estimated to have fallen to 5.0 percent of 2018 GDP, from 9.8 percent in 2016 and 6.9 percent of GDP in 2017. Fiscal consolidation was limited by the authorities' decision to launch Rogun Hydropower Plant's (HPP) first turbine by November 2018.

Natural disasters and climate change threaten Tajikistan's economic and social development. The country's varied geological, climatologic, and topographic features exacerbate its vulnerability and make it highly susceptible to many natural hazards, including earthquakes, floods, landslides, and avalanches. From 1992 to 2016 natural disasters affected 7 million people in Tajikistan—more than 80 percent of the total population—and caused economic losses worth US\$1.8 billion. In response to these risks, the Government of Tajikistan is gradually moving from disaster response to risk mitigation and has taken steps to mainstream disaster risk mitigation into development planning, including the adoption of the Sendai Framework for Disaster Risk Reduction in 2015.

Sectoral and Institutional Context

The power sector is comprised of the vertically integrated energy company, Barqi Tojik (BT), three independent power producers (IPPs), and a concession in Gorno-Badakhshan Autonomous Oblast (GBAO) combining power generation and distribution. BT is fully owned by the Government. It owns and operates most of the electricity generating plants and is also responsible for electricity transmission, dispatch, and distribution services to around 8 million people in all regions of the country except for GBAO. Two of the IPPs – 670 MW Sangtuda-1 and 220 MW Sangtuda-2 hydropower plants – were constructed with investments from Russian and Iranian state-owned companies, and supply electricity to BT under 21-year and 12.5-year power purchase agreements (PPAs) respectively. The third IPP – 3,600 MW 100 percent state-owned Rogun HPP – is under construction. The first unit has been commissioned on November 16, 2018. Pamir Energy Company (PEC) generates and supplies electricity to about 227,000 people in GBAO under a 25-year concession agreement.



BT generates and supplies electricity to about 8 million people in its service area. The total installed generation capacity of BT is 5,226 MW and HPPs account for 89 percent. The 3,000 MW Nurek HPP, with a seasonal reservoir, is the largest generating plant in operation. The bulk of thermal energy-based generation comes from the new 400 MW coal-fired Dushanbe-2 combined heat and power plant (CHP), which was completed in 2016. The thermal power plants are operated in winter season to supply electricity and heat given: (a) high winter electricity demand, which accounts for 60 percent of annual demand, and (b) limited generation by HPPs due to hydrology conditions. BT also operates about 50 MW of available capacity (from 200 MW of installed) at the old and inefficient Dushanbe-1 CHP, which is run on heavy fuel oil (HFO) or natural gas imported from Uzbekistan.

PEC generates and supplies electricity to about 227,000 people in GBAO under a 25-year concession agreement. PEC is a special purpose company, which is owned 70 percent by the Aga Khan Fund for Economic Development (AKFED) and 30 percent by the International Finance Corporation (IFC). It operates GBAO's power generation and distribution under a 25-year concession agreement, which was signed on May 24, 2002 (and expires in 2026), by the Government of Tajikistan and PEC. The company constructed, rehabilitated, and currently operates 11 medium and small HPPs, which account for 91 percent of the supply to consumers. Five percent of the demand of PEC customers is met with electricity supply from BT.

PEC is currently able to ensure reliable and adequate electricity supply to grid-connected consumers in GBAO. PEC has a total installed generation capacity of 44.1 MW comprised of 11 medium and small HPPs. In 2018, the total electricity demand in GBAO was estimated at 202 GWh per year, including an estimated 20 GWh of unmet electricity demand from consumers without access. The supply reliability has significantly improved since the construction and rehabilitation of new small HPPs. PEC has been able to ensure an average of 23-hour electricity supply to its grid-connected consumers

Challenge #1: Ensuring adequate and reliable electricity access to grid-connected consumers in GBAO. The electricity demand in GBAO for grid-connected consumers has been growing at an average annual rate of 3 percent since 2002. Additionally, new settlements are planned to be connected to the grid (detailed in subsequent sections of the document). To meet the demand, PEC constructed several small HPPs and expanded the grid to bring electricity service to around 227,000 people. Within the described context of fragility, it is important to ensure that grid-connected customers receive adequate electricity supply. Therefore, PEC will need to construct new generation capacity to meet the increase of electricity demand. The least-cost analysis conducted by PEC identified the 11 MW Sebzor HPP, with estimated annual electricity generation of 74.5 million kWh (28 percent of current supply by PEC).

Investments in power transmission will be required to connect the power plant to the network and to further increase the reliability and capacity of the power transmission network. Specifically, connection of Sebzor HPP to the power network of GBAO would require construction of 18 km overhead power transmission line (OHL) from Sebzor HPP to Khorog substation with an estimated cost of US\$2 million and the 110 kV substations at Pamir, Khorog and Sebzor HPPs with an estimated cost of US\$2.4 million. Reliability of electricity supply in GBAO would also critically depend upon completion of a 110 kV OHL from Khorog substation to Qozideh substation, which is located near the border with Badakhshan province of Afghanistan.



About ten km of the line has already been constructed by PEC and there is a need to complete the remaining 63 km. The total cost of the investment is estimated at US\$8 million.

Challenge #2: 43,126 people (0.5 percent of population) in GBAO and Khatlon regions do not have access to electricity service. In parts of Khatlon, bordering Afghanistan, there are 74 settlements with total population of 31,460 without access to electricity. Those settlements could not be connected to the grid due to severe financial difficulties of BT. Specifically, BT collects in cash only 18 percent of its total required revenues due to below cost-recovery tariffs and other inefficiencies. This cash shortage does not allow to fully finance the required connection expenditures.

In GBAO, 61 settlements with total population of 11,666 are not connected to electricity service. Those settlements are in remote mountainous areas in the region, which is also the service area of PEC, where access has historically been a challenge. Most of the settlements are scattered over a vast territory in the eastern part of GBAO, while a few of the settlements are in the western part, close to existing PEC grid. Before Tajikistan's independence, those areas were primarily supplied with diesel-based portable generator sets. This approach became prohibitively expensive given the increase in unit costs of diesel-based electricity generation once the generous fuel subsidies provided under the Soviet Union disappeared.

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Relationship to CPF

The proposed grant is fully aligned with Tajikistan FY2019-23 Country Partnership Strategy (CPS).

Specifically, the grant-financed activities would contribute to achievement of objectives under:

1. Focus Area I (Investing in People and Strengthening Social Cohesion). Access to electricity is an essential precondition for enhanced educational and health services. Moreover, access to electricity would enable to strengthen the socio-economic resiliency of the most fragile communities of GBAO region through improved economic opportunities and social services.
2. Focus Area II (Fostering Investments and Exports). Access to electricity for target communities and settlements will create additional economic opportunities for local residents, and, thus, will contribute to private sector led economic growth. The project would also contribute to increased exports of electricity to fragile bordering communities in Afghanistan.



The project is also aligned with the World Bank Group's Energy Sector Directions Paper and the Sustainable Development Goal No. 7 - Ensuring access to affordable, reliable, sustainable, and modern energy for all.

C. Project Development Objective(s)

Proposed Development Objective(s)

The project development objectives are to improve the implementation readiness of the Rural Electrification, Sebzor HPP, and Khorog-Qozideh power transmission line projects.

Key Results

Results Indicator 1: Energy investment under preparation: 3 (off-grid renewable projects in GBAO, Sebzor HPP, and Khorog-Qozideh 110 kV power transmission line).

Results Indicator 2: 227,000 people in GBAO (49% of which female).

D. Preliminary Description

Activities/Components

The proposed Project will be supporting preparatory activities for various power sector investments, including World Bank's US\$31.7 million Rural Electrification Project, to be carried out by Pamir Energy Company (PEC) in order to ensure reliable electricity supply in Gorno-Badakhshan Autonomous Oblast (GBAO) of Tajikistan and increase exports to Afghanistan.

Component 1: Preparation of environmental and social documents required for Rural Electrification, Sebzor HPP, and Khorog-Qozideh power transmission line projects consistent with requirements of financiers.

Component 2: Update of the feasibility study for Sebzor HPP to address specific technical issues of the project design and review of certain technical assumptions.

Component 3: Completion of feasibility study for Khorog-Qozideh (close to Afghan border) power transmission line.

Component 4: Disaster risk screening and mitigation assessment for PEC energy assets.

Component 5: Preparation of bidding documents for construction of Khorog-Qozideh power transmission line.

Component 6: Capacity building for PEC in construction, operation, and maintenance of renewable energy based micro-grids.



Environmental and Social Standards Relevance

E. Relevant Standards

ESS Standards

Relevance

ESS 1	Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10	Stakeholder Engagement and Information Disclosure	Relevant
ESS 2	Labor and Working Conditions	Relevant
ESS 3	Resource Efficiency and Pollution Prevention and Management	Not Currently Relevant
ESS 4	Community Health and Safety	Not Currently Relevant
ESS 5	Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
ESS 6	Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
ESS 7	Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8	Cultural Heritage	Relevant
ESS 9	Financial Intermediaries	Not Currently Relevant

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Legal Operational Policies

Safeguard Policies

Triggered

Explanation (Optional)

Projects on International Waterways OP 7.50

Yes

Projects in Disputed Areas OP 7.60

No

Summary of Screening of Environmental and Social Risks and Impacts

TA will finance some preparatory activities as complementary and supplementary to those already done for the REP as well as for the construction of Sebzor Harbor and 63 Km of transmission lines. The expected outputs will include social, environmental and institutional analysis leading to implementation action plans. While all these activities are exclusively consultancies and these by themselves pose no risks. However, the risks associated with the implementation of the resultant action plans are expected to be substantial. So, the TA too is rated Substantial. The action plans will also have risk mitigation plans. For this, ESRS and ESCP as well as several instruments developed under the REP will be made use of.

CONTACT POINT



World Bank

Contact : Artur Kochnakyan Title : Senior Energy Specialist
Telephone No : 202-473-6302 Email :

Borrower/Client/Recipient

Borrower : Ministry of Finance
Contact : Faiziddin Qahhorzoda Title : Minister
Telephone No : 992372211417 Email : minister@ministry.tj

Implementing Agencies

Implementing Agency : Pamir Energy Company
Contact : Daler Djumaev Title : Director General
Telephone No : 992935016950 Email : daler.jumaev@pamirenergy.com

Implementing Agency : Ministry of Energy and Water Resources
Contact : Usmonali Usmonzoda Title : Minister
Telephone No : 992372216997 Email : uusmonov@gmail.com

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FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>