Early Warning System

ADB-49370-002

Power Sector Development Project

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Quick Facts

Countries	Turkmenistan
Financial Institutions	Asian Development Bank (ADB)
Status	Approved
Bank Risk Rating	B
Sectors	Energy, Infrastructure
Investment Type(s)	Loan
Investment Amount (USD)	$ 502.00 million

Project Description

DESCRIPTION

The proposed project will involve infrastructure of the national power transmission that will cover (i) reinforcement of the existing 220 kV line from Balkanabat to Ashgabat (450 km) and Ashgabat to Mary (360 km); and (ii) substations at Serdar, Tejen, Ashgabat and Balkanabat. The project also includes the infrastructure of the regional power transmission covering the construction of (i) a 500 kV line from Mary to the Afghanistan border (275 km); (ii) a 220 kV line from Balkanabat to Etrek (260 km); and (iii) a new 220 kV substation at Etrek.

The proposed loan amount to finance the project has been increased from the original $150 million discussed in February to $500 million.

PROJECT RATIONALE AND LINKAGE TO COUNTRY/REGIONAL STRATEGY

Turkmenistan plans to regain its position of a large electricity exporter to its neighbors. It is a sparsely populated country surrounded by Afghanistan, Iran, Uzbekistan and the Caspian Sea. Afghanistan, Turkmenistan and Uzbekistan all have about the same land area but the population of Turkmenistan is about 6 million, whereas the other two countries have population of about 30 million each Iran is three times larger with population of about 80 million.

On the regional scene, Turkmenistan is a net exporter of gas and electricity to its neighbors and the energy export contributes to about 55% of the national GDP. With an average annual growth of about 11% since 2007, according to official data, Turkmenistan remains one of the fastest growing economies in the world. It is an upper middle income country and in 2015, Turkmenistan GDP per capita was about $8,760, compared with Afghanistan ($664), Georgia ($3,168), Kazakhstan ($6,768), Pakistan ($1,275) and Uzbekistan ($2,143).

It has the 4th largest reserves of gas, and currently exports about 45 billion cbm (bcbm) of gas each year. However, its export market has shifted from Central Asian republics (80 bcbm in 1990) through Kazakhstan, Uzbekistan and Russia, to Ukraine (11 bcbm in 1991) to Iran (6.5 bcbm in 1998), Russia (80 bcbm) and to PRC (30 bcbm) since 2010. Now the new prospect of exporting about 33 billion cubic meters through the proposed 1800 km Turkmenistan-Afghanistan-Pakistan-India (TAPI) pipeline is a major drive of gas export.

On the domestic scene, the entire population has access to grid connected electricity. The export income allows the government to provide cheaper electricity to all customers including more than half of the population that lives in rural areas leading an agricultural livelihood. The rural farms also make the country self-sufficient in food despite its harsh climate. State Energy Corporation Turkmenenergo (Turkmenenergo) generates 99.8% of its power from gas and large part of its power infrastructure was developed in around 70s. With new power generations coming online, the 2016 available generation capacity is about 4,500 MW, and by 2020, about 2,700 MW capacity will be added to the system. The 2016 peak load is at about 3,100 MW. With the new power generations coming online, the government plans to fast track its export related transmission infrastructures to its lucrative export markets that provides revenue in US dollars.

In early 90s, Turkmenenergo power export was at its peak of about 13,000 GWh per year. The export volume has gradually moved downwards: 9,800 GWh in 2001, about 1500 GWh in 2010 and about 3,200 GWh in 2015. With Turkmenistan's large gas reserves and potential to generate cost competitive electricity, the government plans to reinforce its old infrastructure, and increase electricity export to about 6,000 GWh by 2025 meeting an increasing demand from its existing clients of Iran and Afghanistan, and Pakistan (through Afghanistan). Government requested ADB financing to reinforce the existing overloaded 220 kV transmission line Balkanabat to Ashgabat to Mary Power Plant, including substations at Serdar, Tejen, Ashgabat and Balkanabat. The existing transmission line was constructed as single circuit line almost 40 years ago. The request also covers two regional transmission interconnections as immediate priority a 500 kV line to Afghanistan and a 220 kV line to Iran. A

Investment Description

- Asian Development Bank (ADB)

Contact Information

ACCOUNTABILITY MECHANISM OF ADB

The Accountability Mechanism is an independent complaint mechanism and fact-finding body for people who believe they are likely to be, or have been, adversely affected by an Asian Development Bank-financed project. If you submit a complaint to the Accountability Mechanism, they may investigate to assess whether the Asian Development Bank is following its own policies and procedures for preventing harm to people or the environment. You can learn more about the Accountability Mechanism and how to file a complaint at: http://www.adb.org/site/accountability-mechanism/main

CONTACTS

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Bank Documents

- Proekt po razvitiiu elektroenergeticheskogo sektora: Informatsiia o proekte [Original Source]
- Project Disclosure PDF

Other Related Projects

- ADB-49370-001 Power Sector Development Project