



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION



**FIRST REGIONAL CONFERENCE ON
SUSTAINABLE INDUSTRIAL DEVELOPMENT**
PROMOTING SUSTAINABLE ENERGY SOLUTIONS
AND CLEAN TECHNOLOGIES IN CIS COUNTRIES

ENERGY MANAGEMENT SYSTEM



SORBON KHOLMUHAMADZODA
**MINISTRY OF ENERGY AND WATER RESOURCES OF
THE REPUBLIC OF TAJIKISTAN**



Strategic goals of Tajikistan

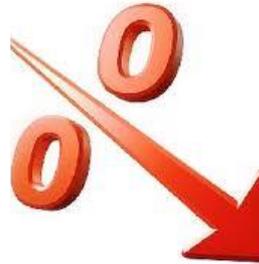
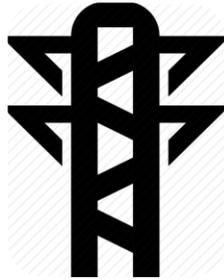
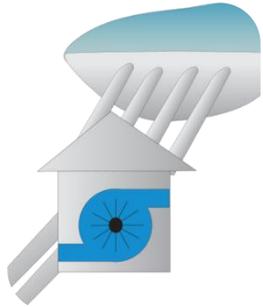


ENERGY SECURITY ○ TRANSPORT CORRIDOR ○ FOOD SECURITY ○





Energy Security



NEW
ENERGY
CAPACITIES

NEW
ENERGY
INFRA-
STRUCTURE

REDUCTION
OF LOSSES

ENERGY
EFFICIENCY
AND
RENEWABLE
ENERGY

BILLING
SYSTEM

REGIONAL
ENERGY
MARKET



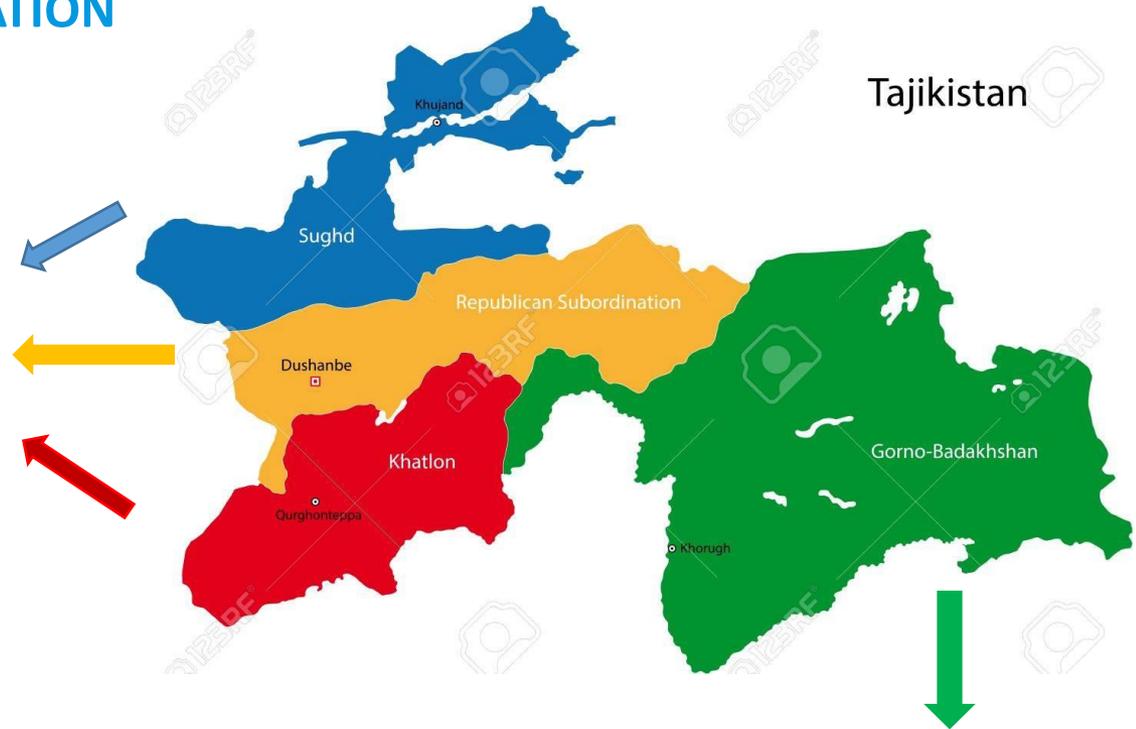
Tajikistan Energy Profile



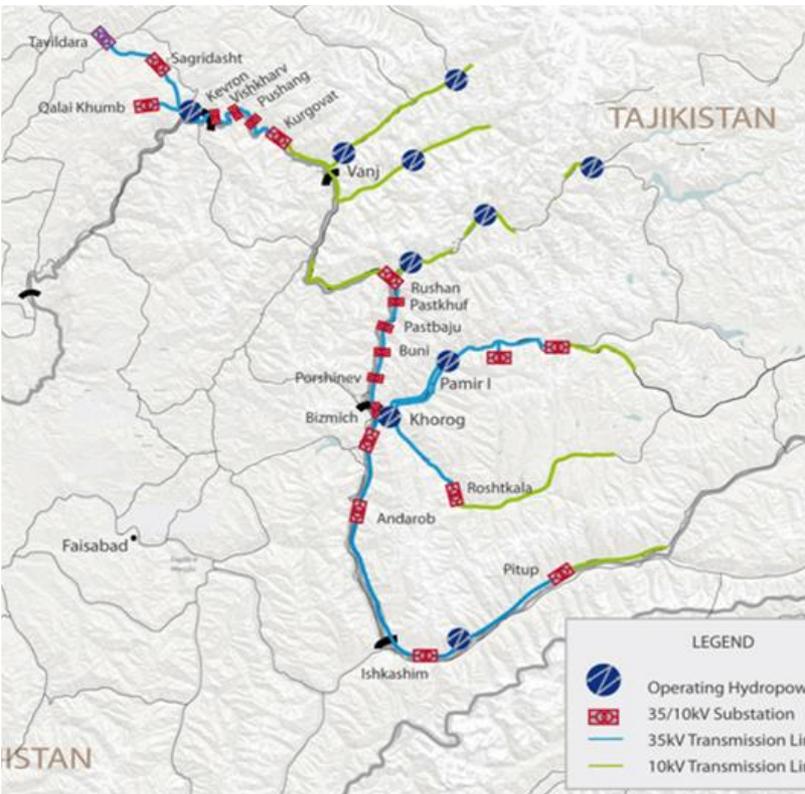
- Potential for generate 527 billion. KW. hours per year
- The installed capacity of power plants of 5400 MW
- Of these, 95% hydro and 5% thermal power stations
- The annual generation more than 17-20 billion. KW. hour
- Excess of hydropower in the summer months (from 3 to 5 billion. KW. hour)
- Winter energy shortages more than 1-1.5 billion. KW. hour



ENERGY SITUATION



PAMIR ENERGY



- Pamir energy is the first energy company in Tajikistan founded under a public-private partnership through a concession agreement. Pamir Energy's initial focus is restoring and operating electrical infrastructure to international standards in Gorno-Badakhshan Autonomous Oblast (GBAO) in Tajikistan.



In beginning of the independent, only 13% of the population received electricity 12 hours a day.

Due to a shortage of electricity, almost 70% of GBAO forests were destroyed by violence for use as fuel

Most of the school was closed in winter, and hospitals received electricity on a special schedule

In that time, the loss of electricity was very high. For example, in GBAO, the average loss of electricity was 39%, and in the city of Khorog - about 60%

All power lines built 30-40 years ago were in worse condition

All equipment of the existing small HPPs was obsolete and worn out

All this led to the fact that the energy area of GBAO was allocated to help the government



- In order to solve these critical electricity problems in 2002, the Government of the Republic of Tajikistan, together with the International Finance Corporation and the Aga Khan Development Network, created the First Public-Private Partnership - Pamir Energy on the basis of the Concession Agreement until 2027 to provide GBAO (Gorno-Badakhshan Autonomous Oblast) Reliable electricity throughout the year, including winter time.

Company achievements

24 h

- consumers of the central power grid and areas of Vanj and Darwaz are provided with 24 hours of electricity



- construction of new 110 kV transmission lines with a length of 60 km and more (construction continues)



- reduction of electricity losses in GBAO (from 39% to 12.5%)



- increase in power capacity (from 23.7 MW to 43.3 MW)

Company achievements



- increase in sales of electricity (from 119 mln.kW.h to 166 mln.kW.h)



- provision of new modern electric meters for 99% of residents of GBAO



- In order to improve the level of customer service in the territory of GBAO, including the city of Khorog, Shugnan, Roshtkala, Rushon and Darvoz, customers have established service centers.



- attraction of 53.3 million dollars of foreign investment for 30 large projects construction and reconciliation of energy facilities in the territory of GBAO



- Implementation of the Billing System and Automatic accounting system control (AASC)

Company achievements



Reconstruction of the Khorog, Namadgut, Shujan, Andarbak, Teharv HPPs and in this direction to increase the reliability and capacity of the power plant



Provide electricity to 4,500 consumers in Shugnon, Sultoni Ishkashim, Nusai and Mohi May areas of Afghanistan as part of the Program of a Collaborative Partnership (the program is about to provide other villages in neighboring Afghanistan)



Designing and construction work under progress

Construction of “Aksu” Small HPP with total capacity of 800 kW carried out by German investments with total amount 7.4 million Euros

Construction of "Motravn“ HPP with total capacity of 300 kW in Vanj valley

Designing of “Sebzor” HPP with a capacity of 10 MW in area Roshtkala

Also, construction of 110 kV, 35 kV and 10 kV power transmission lines carried out by attraction of foreign investments

In general, within 15 years the company Pamir Energy implemented 40 energy projects totaling \$ 53.3 million

Company successes

the company intends to send another \$ 60 million in the near future and increase the power capacity in the territory of GBAO



Pamir Energy has won the 2017 (12 June 2017 in London, United Kingdom) International Ashden Award for Increasing Energy Access for its work bringing hydro power to 220,000 people in East Tajikistan and 35,000 people in North Afghanistan, as well as to many businesses, schools, and health centres.

The Ashden Awards are a globally recognised measure of excellence in the field of sustainable energy. International winners receive £20,000 in prize money as well as a tailored package of business support to scale up their work.



FINAL CONCLUSION



The experience of Pamir Energy has shown that at the present time the proper management of energy resources is a very important factor for achieving the set goals. In the case of Pamir, energy is hydro resources. Despite the difficult terrain and climatic conditions, the Company quite successfully accomplishes the tasks assigned to them. The company intends to further expand its potential and expand its networks and increase its exports to neighboring Afghanistan



