



TAJIKISTAN'S ENERGY PROFILE, POTENTIAL & PERSPECTIVES



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General Information



| | |
|----------------------|---|
| AREA: | 143 thousand. km2 (93% of the territory is covered by mountains) |
| Population: | 8,7 mln. people |
| Capital: | Dushanbe city |
| Independence: | 9 September 1991 |
| Neighbors: | China, Afghanistan, Uzbekistan, Kyrgyzstan |
| GDP | 6, 4 bln. USA |
| Fiscal year | From January 1st to December 31 st |
| Climate: | Continental (at the same time in different parts of the country there is a temperature of -40 ° C to +45 ° C) |
| Currency | Somoni TJS |



Tajikistan energy profile



Potential for generate 527 billion. KW. hours per year

The installed capacity of power plants of 5700 MW

Of these, 95% hydro and 5% thermal power stations

The annual generation more than 17-20 billion. KW. hour

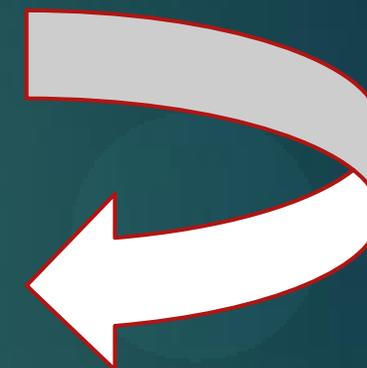
Solar energy potential Tajikistan is estimated about 25 billion KWh/year



Strategic goals of Tajikistan



**NATIONAL DEVELOPMENT
STRATEGY**



ENERGY SECURITY



TRANSPORT CORRIDOR



FOOD SECURITY





Current energy policy and measures

As no country can ensure its development without the development of energy sector, the Government of the Republic of Tajikistan identified the energy security, energy efficiency and energy saving as one of its strategic objectives. For these purposes, are being developed regulatory and legal documents (sector concepts, strategies, programs).

Development of the energy sector in Tajikistan is guided by the following laws and legal acts:

- Constitution of RT
- The Law of RT “On Energy”
- The Law of RT “On Energy Savings and Energy Efficiency”
- The Law of RT “On Usage of Renewable Energy Sources”, etc.

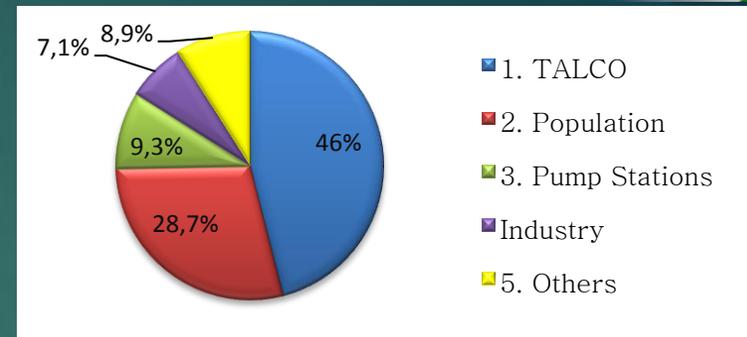
At the moment, Ministry of energy and water resources of the republic of Tajikistan coordinates the implementation of initiatives related to:

- Rehabilitation of existing infrastructures in energy sector;**
- Installation of additional generating capacities;**
- The development using of renewable energy resources, energy efficiency and energy saving;**
- Involving the private sector and the implementation of PPP projects in energy sector;**
- The development of regional electricity market;**

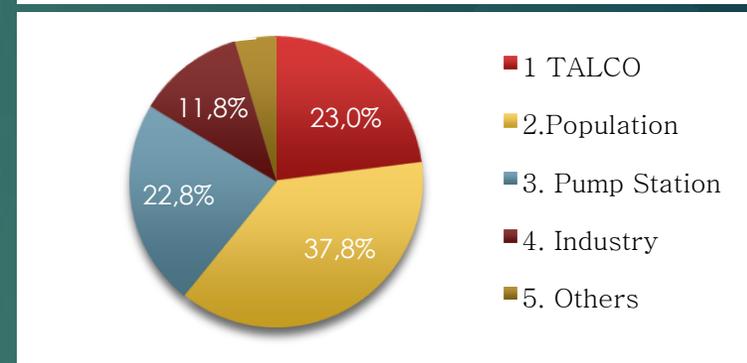


Past energy demand and supply

1. Energy demand by sector in 2010:



2. Demand and supply by energy in 2016:

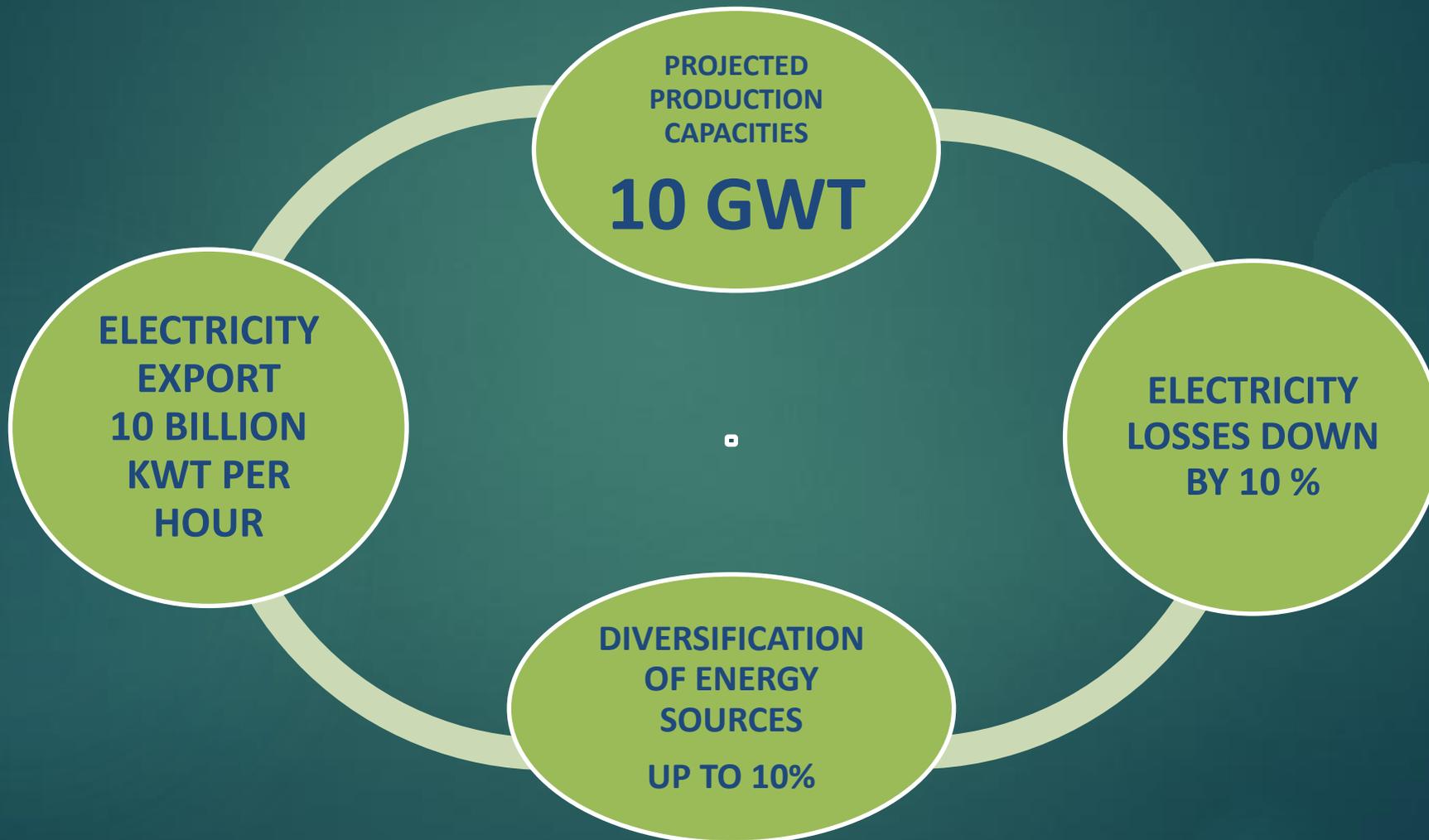


3. Energy prices:

| Electricity Tariffs | Past Cents US\$ | Present Cents US\$ |
|---------------------|--------------------|-----------------------|
| Industry | 5,0 | 4,19 |
| TALCO | 1,15 | 1,15 |
| Communal providers | 1,94 | 1,72 |
| Pump Stations | 1,15 | 0,3 |
| Population | 2,0 | 1,72 |



Long-term objectives – until 2030





Power Projects Implementation

**COMPLETED
PROJECTS**

1.8 billion USD

**ONGOING
PROJECTS**

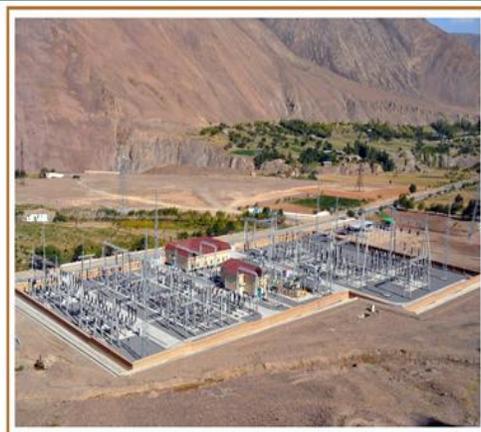
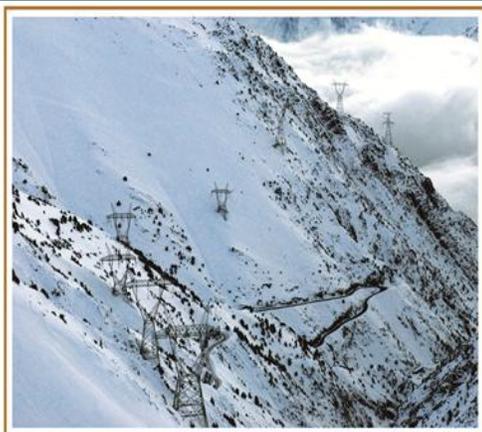
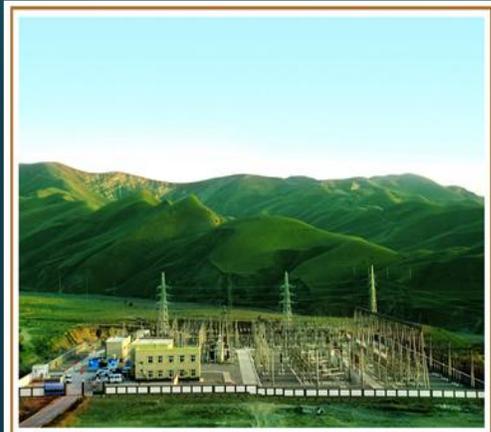
649,3 million USD

**PROJECTS
ON DESIGN AND
PREPARATION STAGE
670,5 million USD**

The main achievements in energy sector



- ❑ Energy sector of Tajikistan develops from year to year;
- ❑ Government has mobilized all of opportunities and resources to achieve one of its strategic objectives - Energy Security;
- ❑ Problem during recent years - shortage of electricity in the autumn-winter period;
- ❑ For the solving this problem there has been constructed new generation capacities, rehabilitated existing infrastructures, constructed and rehabilitated transmission lines and substations;
- ❑ Commissioned Thermal Power Plant Dushanbe-2 with total capacity of 400 MW.





Our Development Partners



ADB
63,27 mln. USD – loan
366, 77 mln. USD –grant



JICA
36,1 mln. USD - grant



Sangtuda HPP-1
174,6 mln. USD – Taj. Gov.
524 mln. USD – Rus. Gov



WB
97 mln. USD – grant
17,2 mln. USD - loan



China Eximbank
801,43 mln. USD –loan



Sangtuda HPP-2
40 mln. USD – Taj. Gov.
318,8 mln.USD – Iran Gov.



IDB
165,2 mln. USD – loans



EBRD
199 mln. USD – loan
60,3 mln. USD - grant



KFAED
28, 4 mln. USD –loan

The result of cooperation with JICA in energy and water resources sectors



JICA started cooperation with Tajikistan since 1993. From 1993 to 2016 our specialists in energy and water resources sectors learned and improved their skills in the educational institutions of Japan. The outcome of cooperation JICA in energy and water resources:

- ❑ Organized seminars on energy efficiency and energy saving based on Japanese experience;
- ❑ Prepared project for rehabilitation substation of “Promishlenaya” and construction of new substation of “Radiostansiya” in Dushanbe city;



Major difficulties in energy sector



The main source of electricity in Tajikistan comes from hydropower (96%). In winter, due to freezing of rivers, the country experiences a serious shortage of electricity, but in summer it generates a surplus (5–7 bln. kWh) which, due to limited export opportunities, is wasted.

This problem is compounded by deteriorating and exhausting generation assets, transmission and distribution system inefficiencies and losses, and governance issues, specifically management, operational, and financial performance issues.

Insufficient and unreliable power supply imposes serious costs on the national economy, especially in rural areas.

Subjects I would like to study during training course



First of all, I want to say that, Japan has a long and rich history. Also, it is important to mention that the experience of Japan in promotion measures for energy efficiency and energy saving in daily life is advanced among other developed countries.

From this training course, I want to learn Japanese experience in these directions:

- Implementation energy efficiency and energy saving activities in daily life based on Japanese experience;
- Methods and ways of improvement population's skills on saving energy and money in daily life.

Thank you for your attention !!!

