



TAJIKISTAN'S ENERGY PROFILE - POTENTIAL & PERSPECTIVES

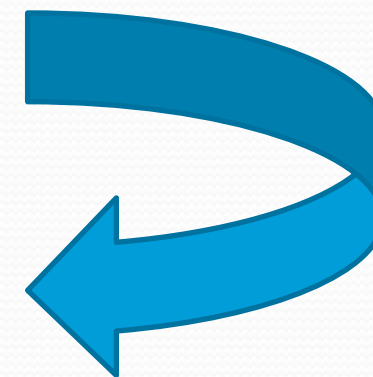


Mokhira Radjabova

Open Stock Holding Company “Barqi Tojik”



Strategic goals of Tajikistan



ENERGY SECURITY ○



TRANSPORT CORRIDOR ○

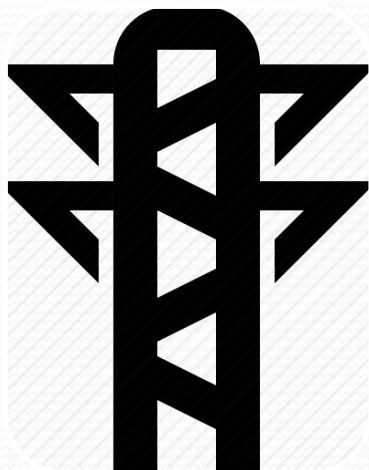
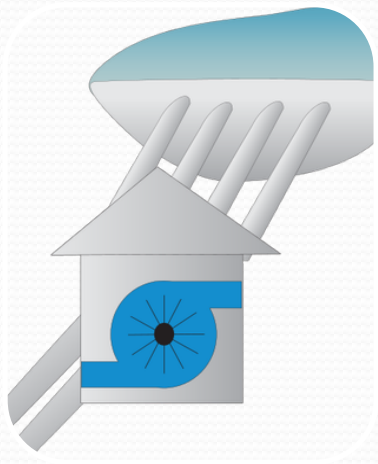


FOOD SECURITY ○





Energy Security



NEW ENERGY CAPACITIES

NEW ENERGY INFRA-STRUCTURE

REDUCTION OF LOSSES

ENERGY EFFICIENCY AND RENEWABLE ENERGY

BILLING SYSTEM

REGIONAL ENERGY MARKET



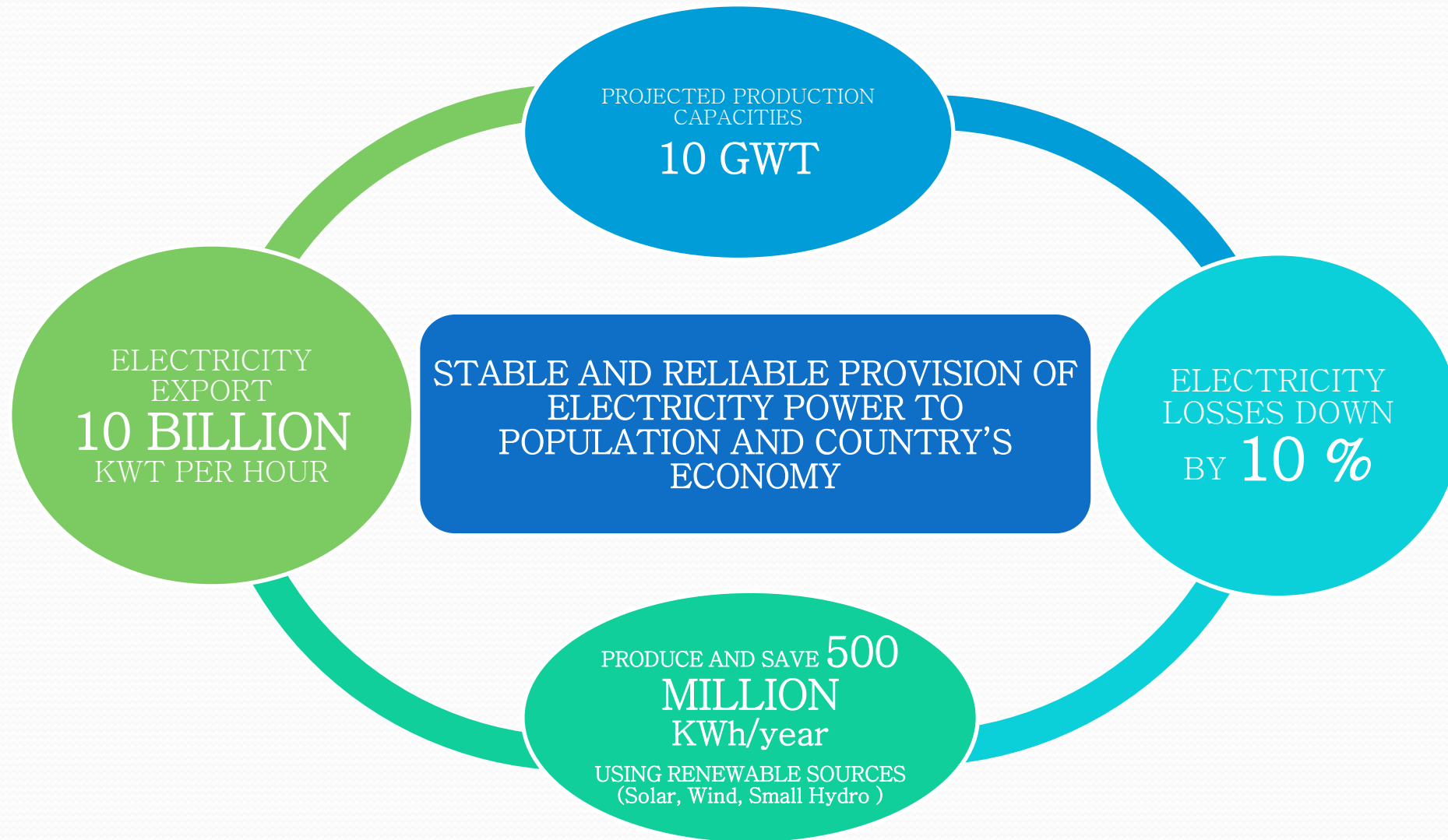
Tajikistan Energy Profile



- 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



Long-term objectives – until 2030





Power Projects Implementation

**Completed
Projects
1.7 billion USD**

**Ongoing Projects
827,5 million USD**

**Projects
on design and
preparation stage
385,0 million USD**



Power Projects Implementation

Completed Projects
1.7 billion USD

- EMERGENCY BAYPAZA HPP LANDSLIDE STABILIZATION
- RECONSTRUCTION OF DUSHANBE CITY ELECTRICAL NETWORKS
- CONSTRUCTION OF MHPP IN RURAL AREAS OF THE REPUBLIC OF TAJIKISTAN
- CONSTRUCTION OHL-500kV SOUTH-NORTH
- CONSTRUCTION OHL-220kV LOLAZOR-KHATLON
- ADDITIONAL WORKS OF CONSTRUCTION OHL-500/220kV SOUTH-NORTH & LOLAZOR-KHATLON
- REHABILITATION OF ENERGY SECTOR OF THE REPUBLIC OF TAJIKISTAN
- REGIONAL POWER INTERCONNECTION TRANSMISSION PROJECT
- RECONSTRUCTION OF 220kV SWITCHYARD AT NUREK HPP
- CONSTRUCTION OF 220KV OHL HUJAND-AYNI
- ESTABLISHMENT OF UNIFIED POWER SYSTEM OF THE NORTH OF TAJIKISTAN
- ENERGY LOSS REDUCTION PROJECT IN DUSHANBE CITY
- CONSTRUCTION OF SANGTUDA HPP-1
- CONSTRUCTION OF SANGTUDA HPP-2
- CONSTRUCTION OF SMALL HPP IN RURAL OF TAJIKISTAN
- REPLACEMENT OF 220 kV SUBSTATION at NUREK HPP



Power Projects Implementation

Ongoing Projects
827,5 million USD

- RECONSTRUCTION OF 500KV SWITCHYARD AT NUREK HPP
- REGIONAL POWER TRANSMISSION PROJECT
- REHABILITATION OF 500KV REGAR SUBSTATION
- ENERGY LOSS REDUCTION PROJECT
- ENERGY LOSS REDUCTION PROJECT IN SUGHD REGION
- CONSTRUCTION OF DUSHANBE -2 TPP SECOND PHASE
- GOLOVNAYA 240 MW HPP REHABILITATION PROJECT
- REHABILITATION OF 220KV RAVSHAN SUBSTATION
- WHOLESALE METERING AND TRANSMISSION REINFORCEMENT PROJECT
- RECONSTRUCTION OF MHPP OKSU (MURGAB)



Power Projects Implementation

**Projects on design and
preparation stage
385 million USD**

- **REHABILITATION OF KAYRAKUM HPP**
- **CASA-1000**



Our Development Partners



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



SECO
19,2 mln. USD– grant



DIFID
30 mln. USD - grant



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



OPEC
8,5 mln. USD – loan



EIB
70 mln. USD – loan



IDB
165,2 mln. USD – loans



China Eximbank
801,43 mln. USD –loan



JICA
36,1 mln. USD - grant



KfW
18,0 mln. Euro–loan
13 mln. Euro–grant



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



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



KFAED
28, 4 mln. USD –loan



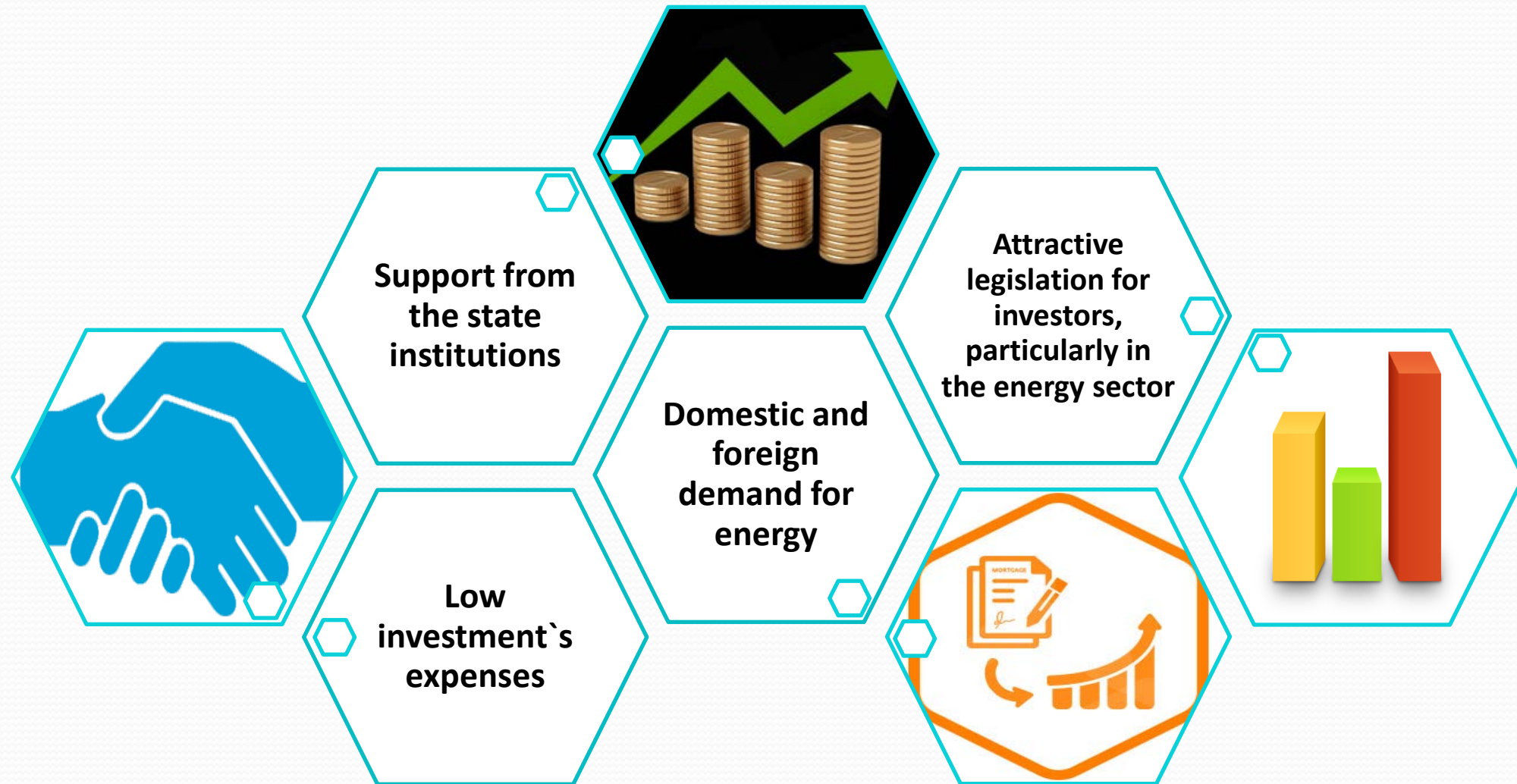
BT co-financing
63,63 mln. USD



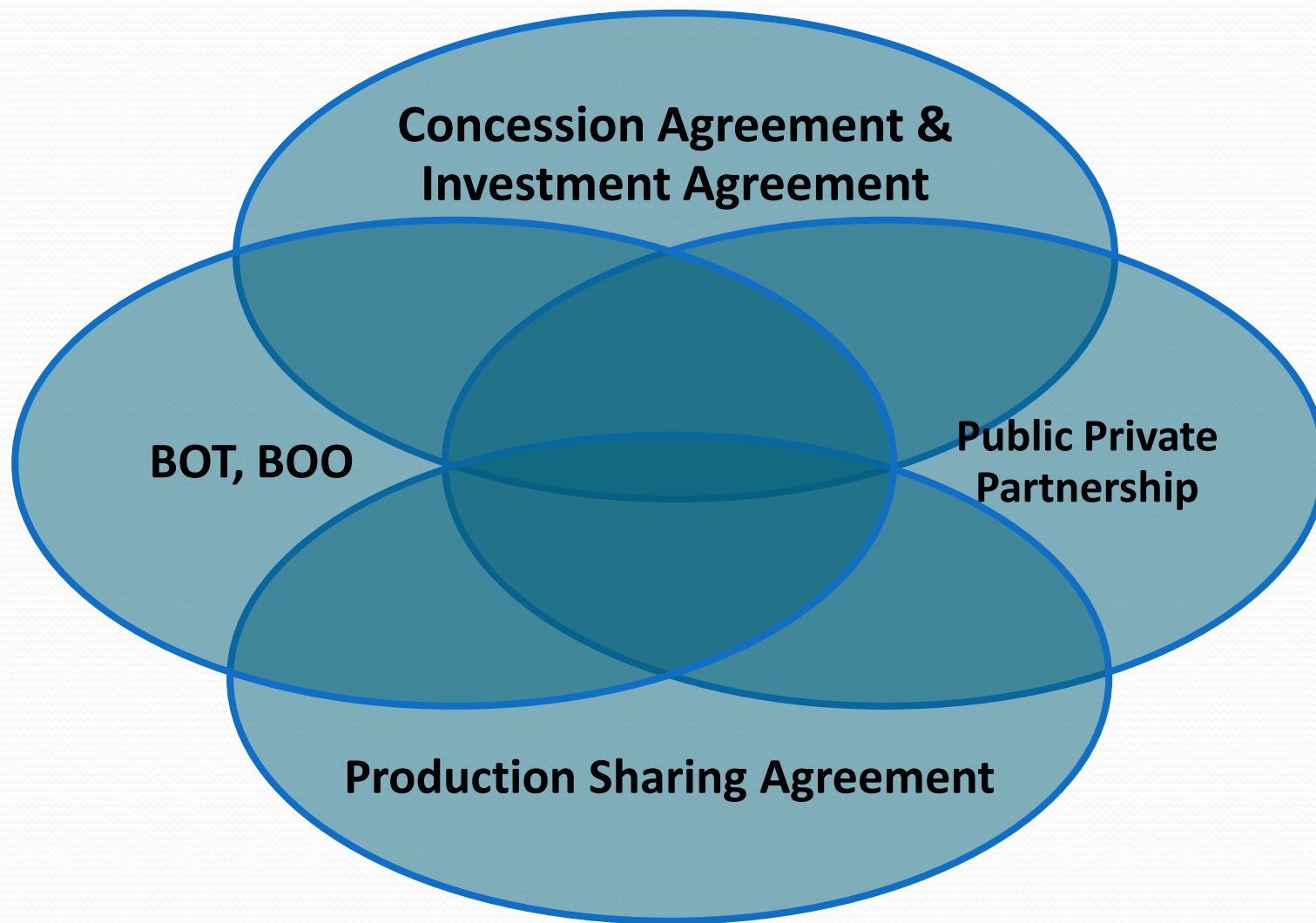
Sangtuda HPP-2
40 mln. USD – Taj. Gov.
318,8 mln.USD – Iran Gov.



Investment opportunities of the energy sector



INVESTMENT TOOLS FOR COOPERATION IN ENERGY SECTOR





Investment Opportunities

Long-term Development Program for OHL & SS

- Improving of reliable power supply in Sughd Region
- Construction of 220/110 kV SS in the territory of Dangara Free Economic Zone
- Construction of 110/6 kV SS in north part of Dushanbe City
- Construction of 1110/6 kV GIS Glavpochtamt in Dushanbe City
- Reconstruction of 110/35/10 kV Promishlenaya in Dushanbe City
- Construction of 110/6 kV Temurmalik SS in Khujand City
- Construction of 220 kV SS and 220 kV distribution device in the territory of Dushanbe-1 Heat and Power Station
- Construction of 220/110/10 kV Bahoriston SS
- Construction of 220 kV OHL Sughd – Khujand and construction of Khujand SS
- Construction of 220 kV OHL Konibodom – Asht
- Energy Loss Reduction Project in KurganTyube Region
- Energy Loss Reduction Project in Regions of Republican Subordination
- Energy Loss Reduction Project in Tursunzoda District
- Energy Loss Reduction Project in Kulob District
- Construction of 220 kV Sharshar – Lolazor
- The implementation of energy projects to improve electricity supply of cities and districts of Khatlon Region
- Reconstruction of 220/110/10 kV Orjonikidzeabad-2 SS
- Construction of 500 kV OHL Tajikistan – Pakistan
- Construction of 500 kV OHL Tajikistan –Afghanistan-Iran

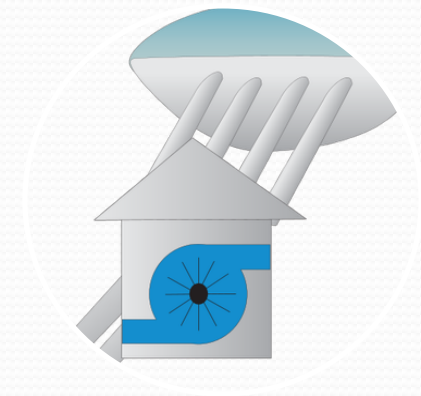




Investment Opportunities

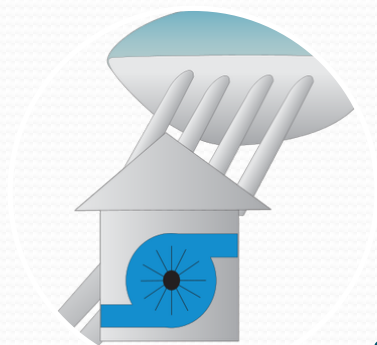
Long-term Development Program for HPP & TPP

- Construction of Fon-Yagnob TPP
- Rehabilitation of Nurek HPP
- Construction of Sebzor HPP
- Construction of Sanobod HPP
- Construction of Nurobod-1 HPP
- Construction of Nurobod-2 HPP
- Construction of Fondarye HPP
- Construction of Ayni HPP
- Construction of Shurob HPP
- Construction of Dombrachi HPP
- Construction of Nurek-2 HPP
- Construction of Oburdon HPP
- Construction of Shurob TPP

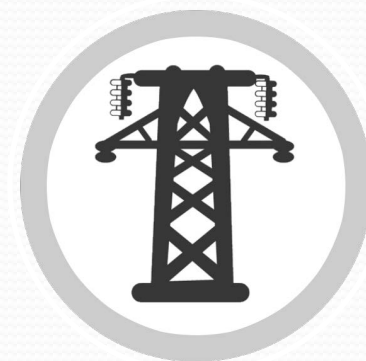




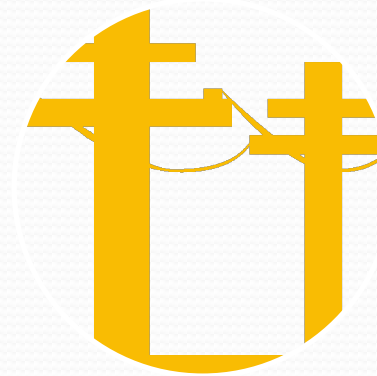
Unbundling of Barki Tojik



Generation
• Generation



Transmission
• Transmission

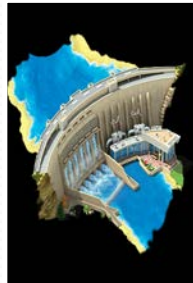


Distribution
• Distribution



Prospective Projects

Improvement of Electrical Networks



Construction of bypass tunnel at Baypaza HPP



Construction of 220 kV substation in Dushanbe City



Rehabilitation of HV & LV electrical networks with installation of automated billing system in Kurgonteppa, Kulob, Tursunzoda, Rasht and Regions of Republican Subordination's electrical networks



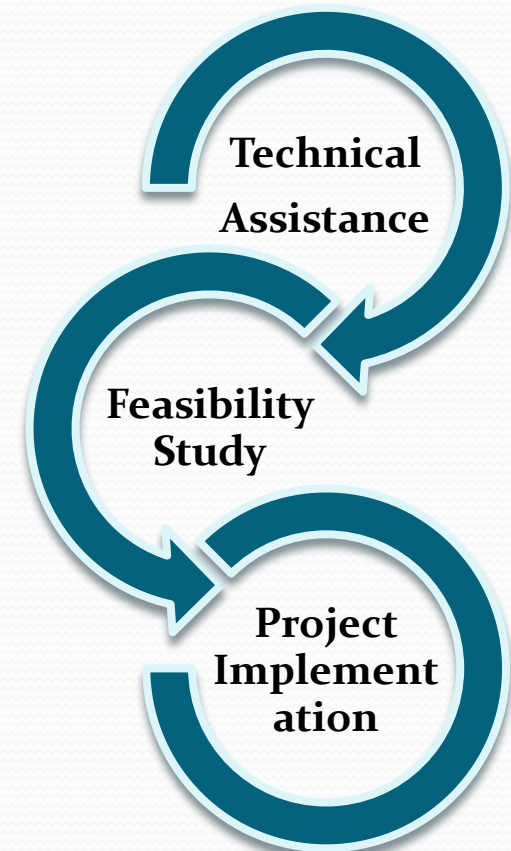
Construction of 220/110/10 kV Bahoriston substation in Instaravshan district of Sughd Region



Construction of 220 kV OHL Sughd-Khujand-Kayrakum with 220/110/10 kV Substation



Reconstruction of 110/35/6 kV Kulob substation





Prospective Projects - HPP

**CONSTRUCTION OF SHUROB HPP
(850 MW)**

**CONSTRUCTION OF NUROBOD
HPP- 1 (460 MW)**

**CONSTRUCTION OF
NUROBOD HPP-2 (400 MW)**

**CONSTRUCTION OF
FONDARYO HPP (300 MW)**

**CONSTRUCTION OF AYNI
HPP (160 MW)**

**CONSTRUCTION OF SANOBOD
HPP (125 MW)**

**CONSTRUCTION OF ZARAFSHON
HPP (150 MW)**





Power Sector Development Prospective Projects -Thermal



**DUSHANBE-2 TPP 2x150 MW –
SECOND PHASE (300 MW)**



SHUROB TPP (300 MW)

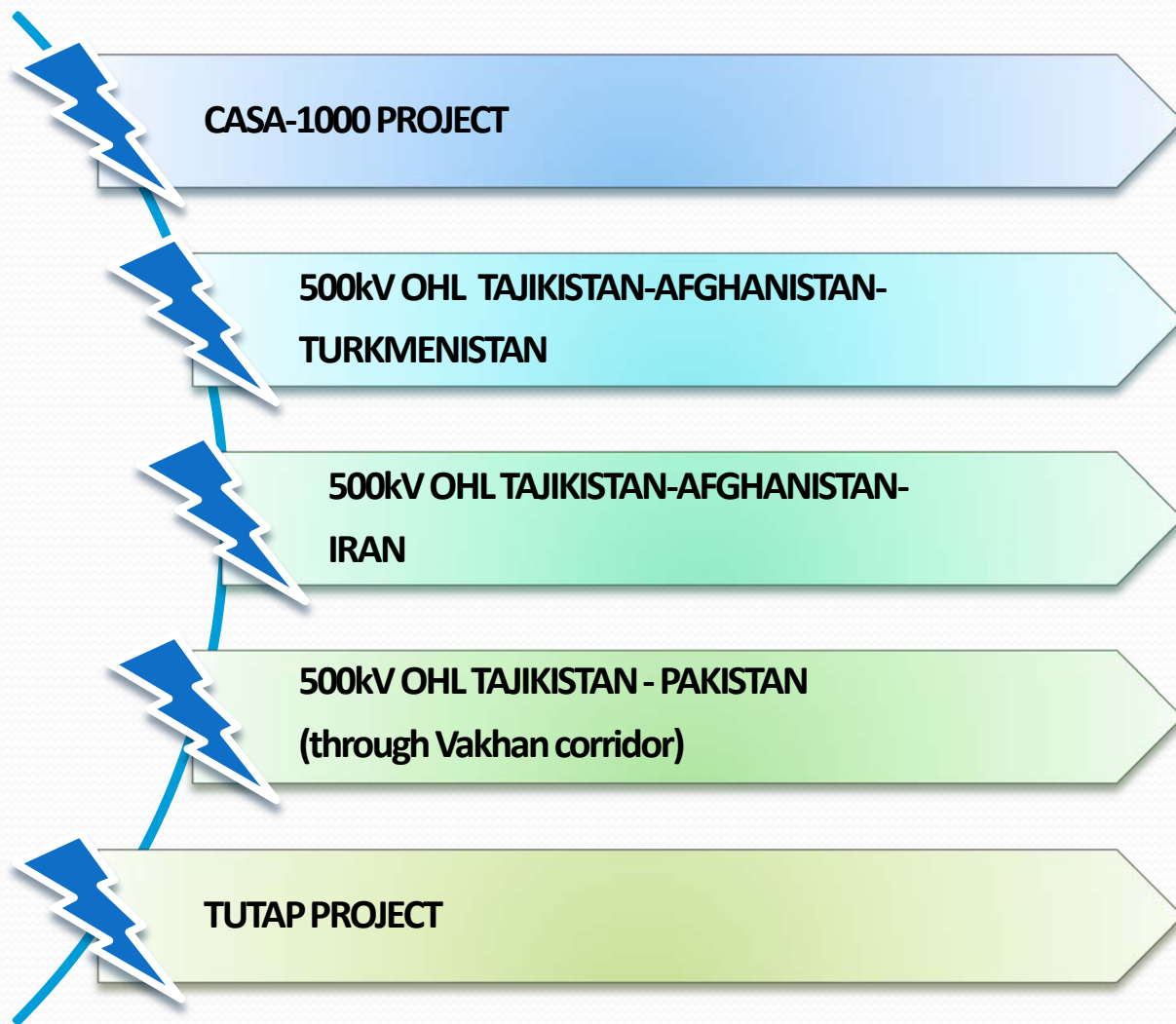


FON YAGNOB TPP (700 MW)





Power Sector Development Regional Initiatives - OHL





Thank you for your attention !!!



Contact : report@tky.ieej.or.jp