



DA AFGHANISTAN BRESHNA SHERKAT PROCUREMENT ROAD SHOW CONFERENCE

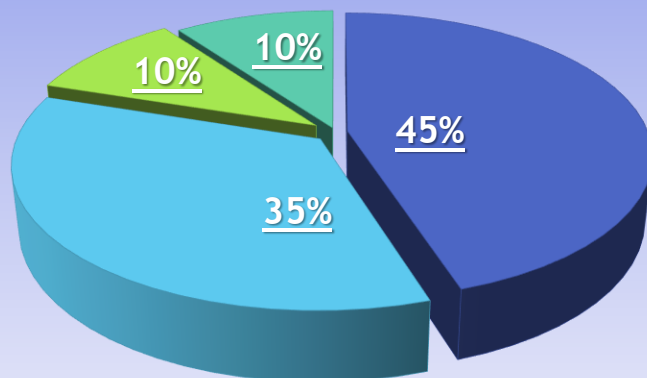
Tuesday, 26th – 27th Nov, 2019
Kathmandu, Nepal



Executive Summary

- ❖ **T**he Government of Afghanistan corporatized the National Electricity Service Department Da **AFGHANISTAN BRESHNA MOSSASA** (DABM) into an independent state owned utility as such, all assets, staff and other Rights and Obligations of (DABM) were transferred to (DABS).
- ❖ DABS is an independent and autonomous 100% State-owned corporation, incorporated on 4th May 2008. DABS has been established under The Corporations and Limited Liabilities Law of the Islamic Republic of Afghanistan (IROA). DABS have sole authority to run its operations and appoint the required staff according to its legal framework (Articles of Incorporation, Bylaws)

DABS SHARES ARE OWNED BY MINISTRIES



- Ministry of Finance
- Ministry of Energy and Water
- Ministry of Economy
- Ministry of Urban Development Affairs



Executive Summary DABS Operational Hubs





Executive Summary

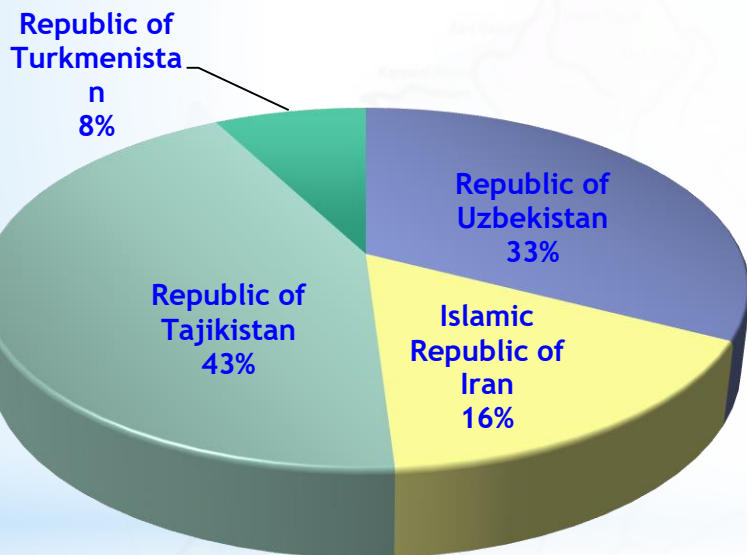
- ❖ To achieve the goal for providing power supply towards whole Afghanistan, a large investment plan is required for all the sub-areas like, Generation expansion, Transmission Network development and strengthen Distribution System. This will need a total investment of \$10,096m, out of which, \$7,330m for Generation sector development and network integration, \$1,727m for major Transmission Projects and \$1,040m for Transmission Network development within the provinces up to the year 2032. (Afghanistan Power Sector Master Plan)
- ❖ The total investment for stage A is estimated at \$1,214m. Stage B will require \$1,464m while stage C and stage D will require about \$1,409m and \$6,010m. The high investment in Stage D is related to the hydropower plants. (Afghanistan Power Sector Master Plan)

Overview on Investment type	Subtotal by project	Stage A	Stage B	Stage C	Stage D
Generation development	\$ 7,329.50	\$ 327.60	\$ 348.50	\$ 981.50	\$ 5,671.90
Major transmission projects	\$ 1,725.90	\$ 595.00	\$ 676.00	\$ 212.90	\$ 242.00
Transmission development within the provinces	\$ 1,041.00	\$ 291.10	\$ 439.80	\$ 215.10	\$ 95.00
Total in Million USD	\$ 10,096.40	\$ 1,213.70	\$ 1,464.30	\$ 1,409.50	\$ 6,008.90

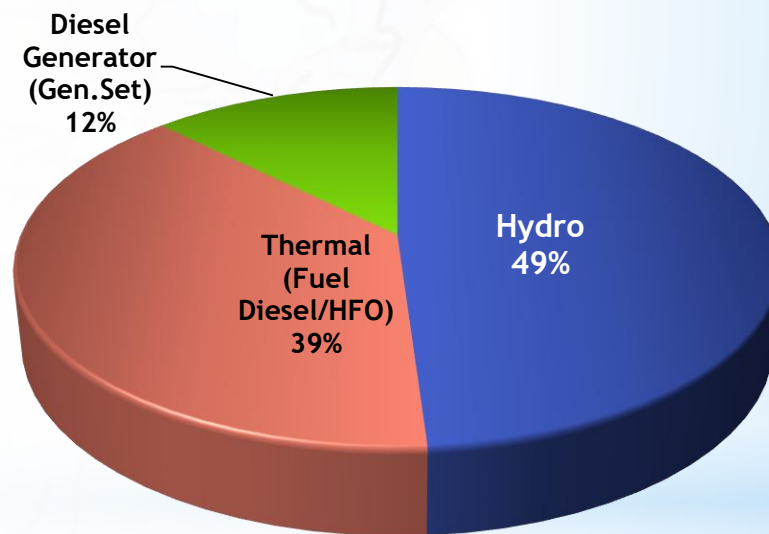


Afghanistan on Grid Generation / Transmission Profile

Transmission Lines Installed Capacity, Max in MW



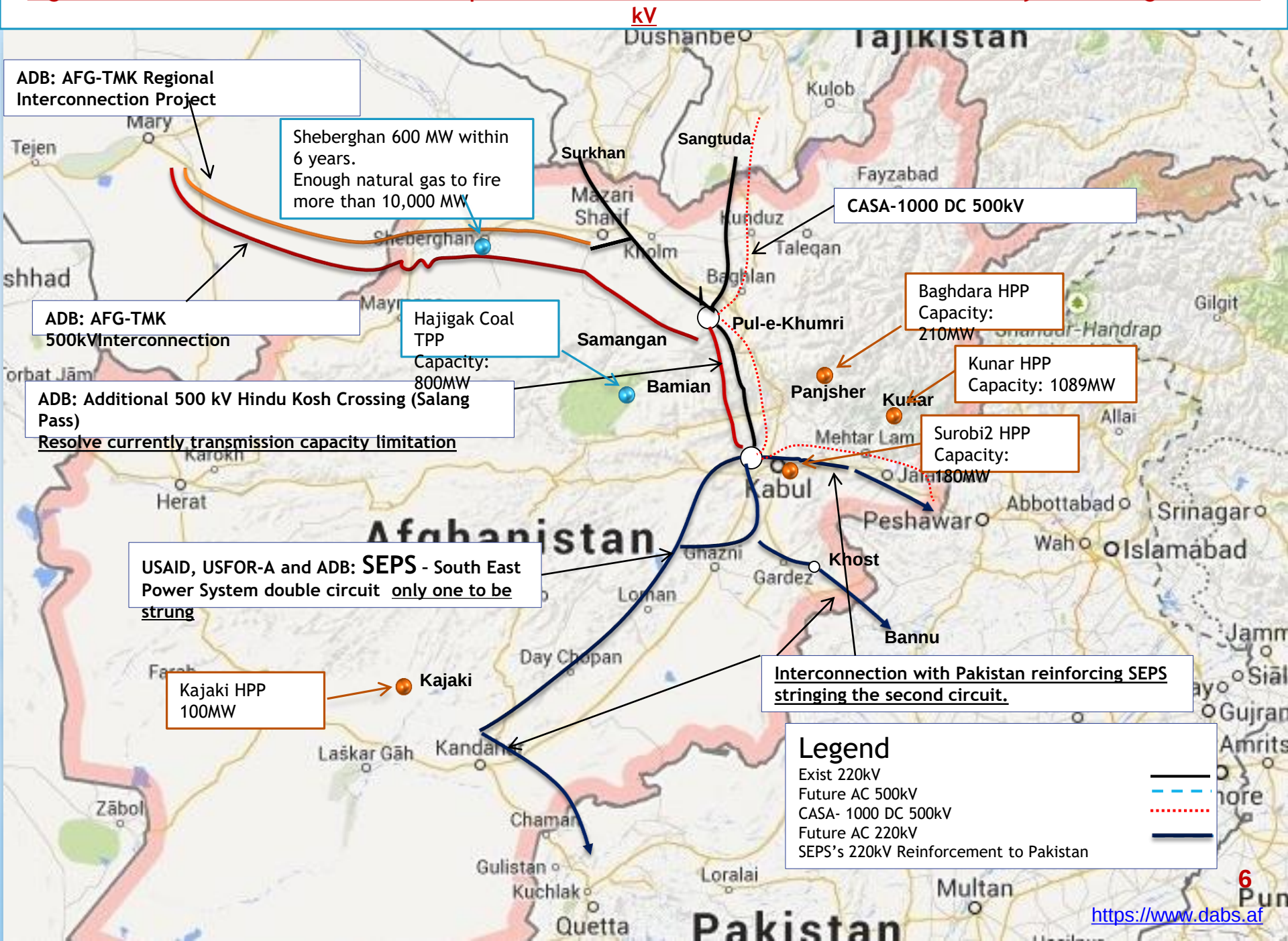
Afghanistan Core Generation Installed Capacity in MW



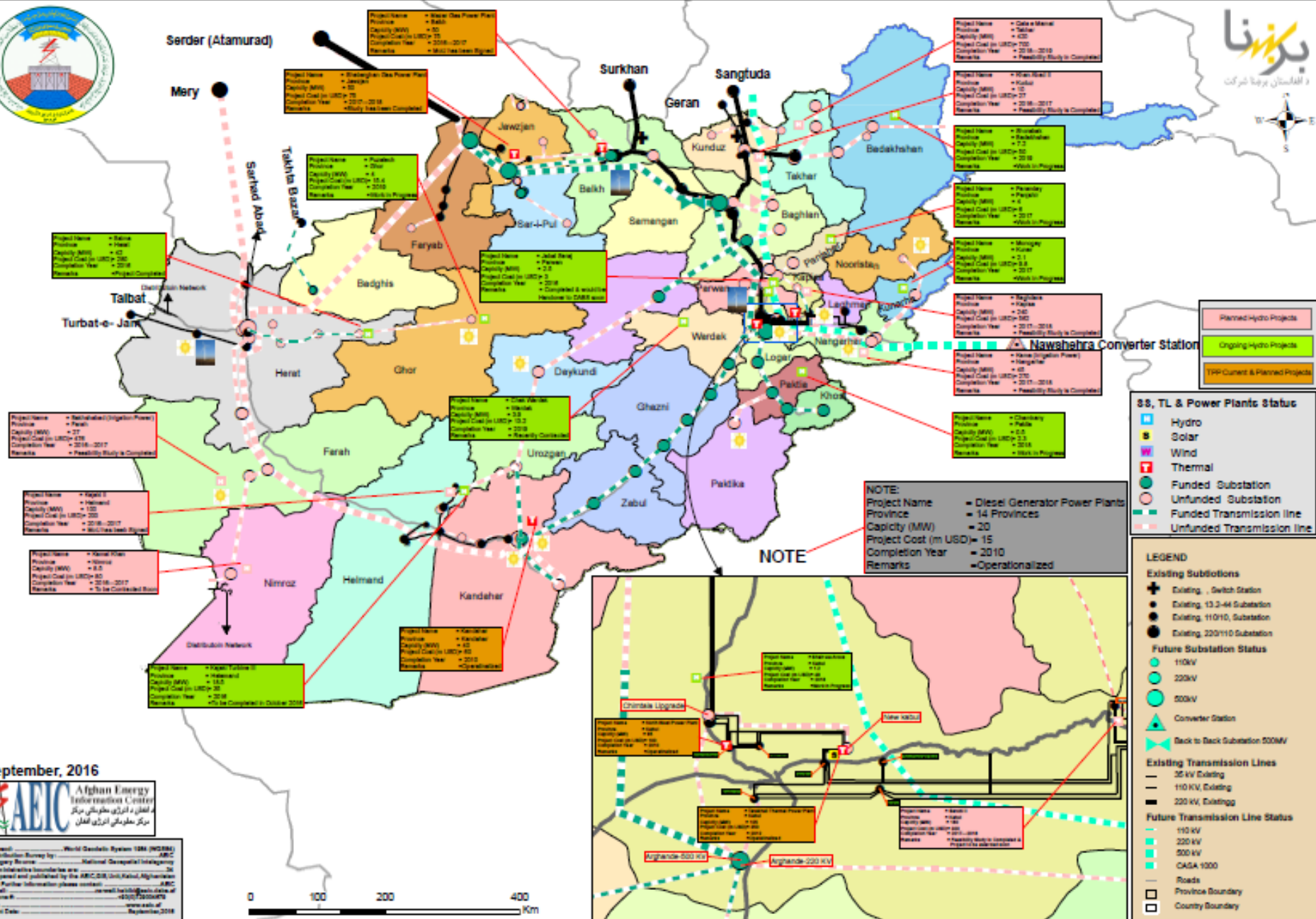
Republic of Uzbekistan	326
Islamic Republic of Iran	164
Republic of Tajikistan	433
Republic of Turkmenistan	77
Total	1,000

Hydro	254
Thermal (Fuel Diesel/HFO)	200
Diesel Generator (Gen.Set)	65
Total	519

Afghanistan Transmission and Generation Expansion Plan - Possible Interconnection with Pakistan by Reinforcing SEPS' 220 kV



Afghanistan National Grid Plan





USAID Projects Short Profile

1.	DABS/91/ICB/039	Corporate Management Support	23-Dec-2013	\$ 17,906,779
2.	DABS/91/ICB/037	implementation and roll out of mPower software	12-Mar-2014	\$ 9,976,714
3.	DABS/92/ICB/004	Lot 1 Arghandi-Ghazni 220 Kv (Transmission line)	26-Mar-2014	\$ 56,731,636
4.	DABS/92/ICB/004	Lot 2 Arghandi-Ghazni 220 Kv (Two Substations)	26-Mar-2014	\$ 48,118,618
5.	DABS/92/ICB/012	Construction Management for PTEC Project	26-Mar-2014	\$ 18,481,972
6.	DABS/91/ICB/038	Commercialization Program (2) Generation/Trans	23-June-2014	\$ 27,465,980
7.	DABS/92/ICB/028	Procurement of Electrical Equipment (PTR) Lot 1 (Approval from USAID received on 02.10.2014 and contract to be concluded)		\$ 992,000
8.	DABS/92/ICB/028	Procurement of Electrical Equipment (Other Elect. Equip) Lot 2 (Approval from USAID received on 02.10.2014 and contract to be concluded)		\$ 2, 589,678
9.	DABS/92/ICB/010	CMAR 09-Dec-2013 (Approval from USAID received on 30.10.2014 and contract Amnd No.4 to be concluded)		\$ 36,075,664
10.	DABS/93/ICB/051	Installation of Kajaki Unit 2 (77Construction) (Approval from USAID received on 30.10.2014 and contract to be concluded)		\$ 35,618,033

\$253,957,074



ADB

ADB Projects Short Profile

- Extension of 220 kV double circuited transmission line from Konduz new substation to Taluqan tap-e-ortaboz substation with total length 65.68 km.
- Baghlan and Kunduz city power distribution network.
- North east power system emergency tolls and equipment for 220 kV Transmission line.
- Micro hydro power plant in Badakhshan and Bamian province.
- Extension of Cham-e-tala substation (220/110 kV)
- Construction of 220 kV transmission line from chamtallah substation to south west (Arghandi) substation with approximately 30 km length.
- Construction of new 220 kV substation in south west of Kabul.
- Construction of LV & MV distribution network for 40000 household in Dashti Barchi and Arghandi.
- Purchase of 100 step down transformer for KED distribution network.
- Rehabilitation and modernization of Garashk hydro power project and its distribution network.
- High voltage 500 kV transmission line from Turkmenistan border to Andkhoy and Shaberghan.
- Construction of 220 kV transmission line from Shaberghan to Mazar-e-Sharif.
- Construction of new 220 kV substation in Shebarghan and Andkhoy.
- Extension of 220 kV substation in Mazar-e-Sharif.
- Hired consultancy company for monitoring of project implementation.
- Construction of Logar and Gardiz distribution network and expansion of Logar and Gardiz substation.
- Construction of new 500/220 kV pol-e-khomry substation.

Afghanistan an Energy Importer and Producer.

DABS responsible for all Electricity Generation, Transmission and Distribution in Afghanistan

- * 1.6 m Connected Customers

- * Peak Demand 2000 MW

BY GEOGRAPHIC LOCATION, AFGHANISTAN IS WELL PLACED TO ;

- * Import power from Northern hydro - resourced countries
- * Transmit bulk power from the North to other regions of high demand , such as Pakistan

Average Demand Growth

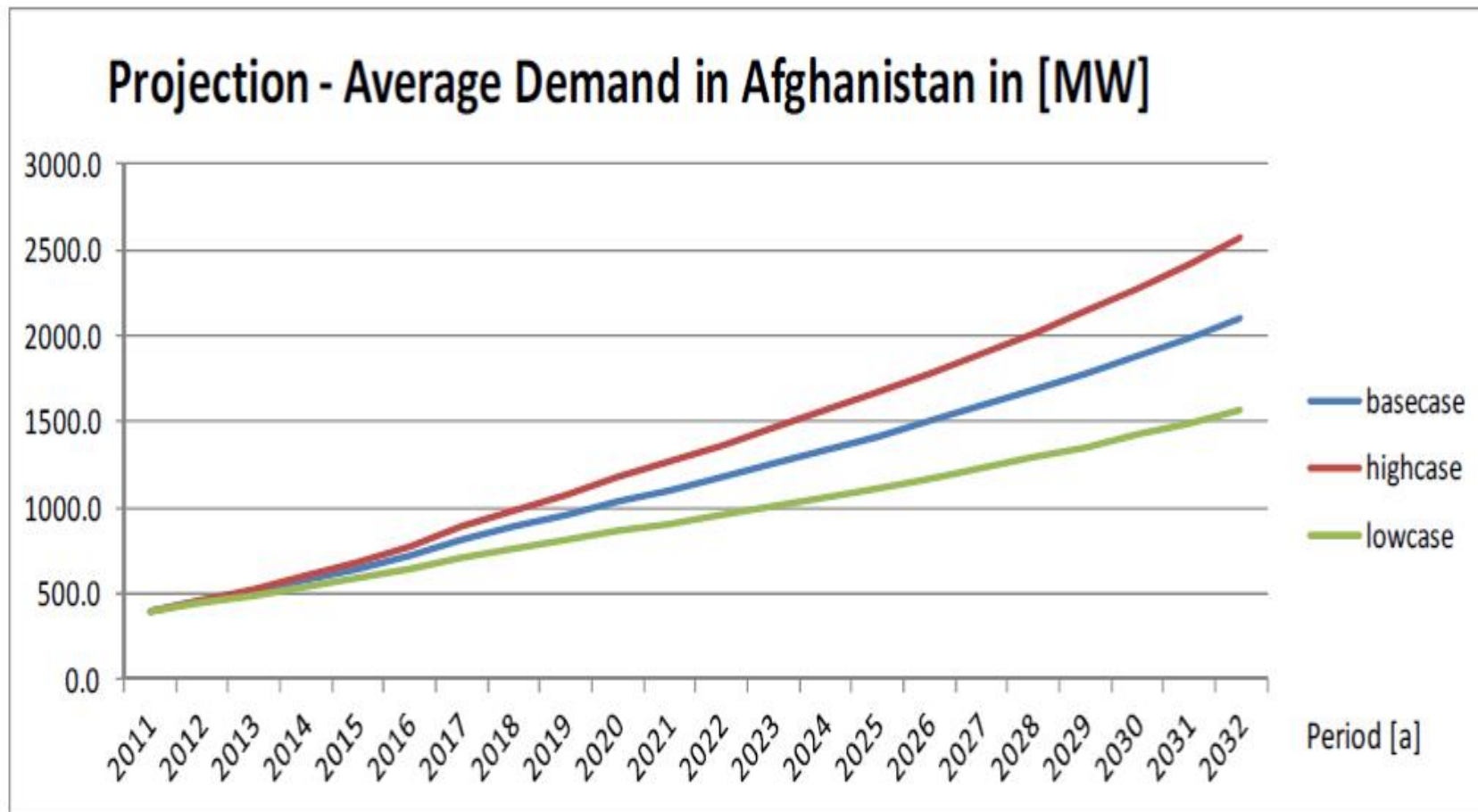


Figure 10.2.2-1: Demand Projections in [MW avg] for Afghanistan

Overview Afghanistan existing and future HV net work

***The network allows for;**

❖ Future national load growth

❖ Import - Export to neighbouring countries

Hydro Resources in Afghanistan

No	Project	River	Province	Capacity [MW]	Comm. date	Annual energy [GWh]	Est. cost [\$m]
1	Baghdara	Panshir	Kapisa/ Parvan	210	2021	968	600
2	Surobi 2	Kabul	Lagman	180	2021	891	700
3	Kunar A (Shal)	Kunar	Kunar	789	2022	4772	2000
4	Kajaki Addition	Helmand	Helmand	100	2021	493	300
5	Kukcha	Kukcha	Badakhshan	445	2022	2238	1400
6	Gulbahar	Panshir	Panshir/ Baghlan	120	2021	594	500
7	Capar	Panshir	Panshir	116	2021	574	450
8	Kama	Kunar	Nangarhar	45	2021	223	180
9	Kunar B (Sagai)	Kunar		300	2021	1485	600
10	Kajaki Extension	Hemand	Helmand	18.5	2019	91	90
11	Olambagh	Helmand	Uruzgan	90	2021	444	400
12	Kilagai		Baghlan	60	2021	297	250
13	Salma	Hari Rud	Herat	40	2020	197	200
14	Upper Amu	Amu Daria		1000	2023	4955	2500
15	Dashtijum	Pyanj		4000	2023	19819	8000

Solar Energy

Today Four Solar Energy plants are completed. Such as Two Solar Power Plants in Kandahar, One in Herat and one in Bamyan.

Solar Panel Arrangement in Bamyan



What is being constructed in Afghanistan today?

*ESDIP Projects:

- *Kunduz - Taloqan 220 kV Transmission Line Project
- *Baghlan and Kunduz Distribution networks - 41,000 new connections
- *Arghandi 220 /20kV Substation
- *Chimtala - Arghandi 220 kV Transmission Line
- *South West Kabul Distribution works -30,000 connections

Thank You

