

Reimagining South Asia in 2030

Parallel Session A1

Achieving Sustainable Energy for All in South Asia: Modalities of Cooperation

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Achieving Sustainable Energy for All in South Asia: Modalities of Cooperation

Afghanistan- Transit country PLUS EXPORTER

Dhaka/ 16th October 2016



<u>Outline</u>

I. Short Overview

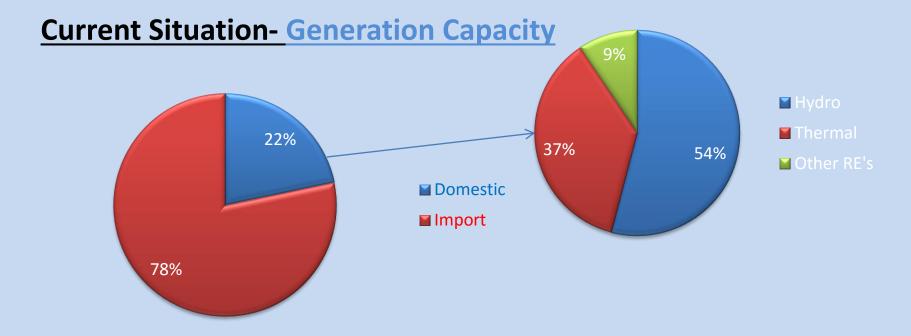
- Current Situation
- Domestic Potentials Afghanistan
- Development Plan of Afghan Government

II. JOINT Energy Projects and Regional Interests

- Benefits of JOINT ENERGY PROJECTS for Afghanistan and the region
- Opportunities for Afghanistan and the Region
- Obstacles for Afghanistan and the Region
- Recommendations "Peace, Stability and Economic Growth through JOINT energy projects"

I. Short Overview Afghan Power Situation





- Total Connections rate : 32 % ; In rural areas < 10 %
- 90 % residential , only 6.7 % commercial customers

Source: Inter Ministerial Commission (ICE)- AFG

Afghan Power Generation - Potentials

Hydropower : \checkmark

✓ Solar

✓ Wind

23,000 MW : 222,000 MW 68,000 MW



>Only 1.4 % of hydro power potential used ► Solar and Wind almost 0%

Afghan Power Development Plan up to 2032

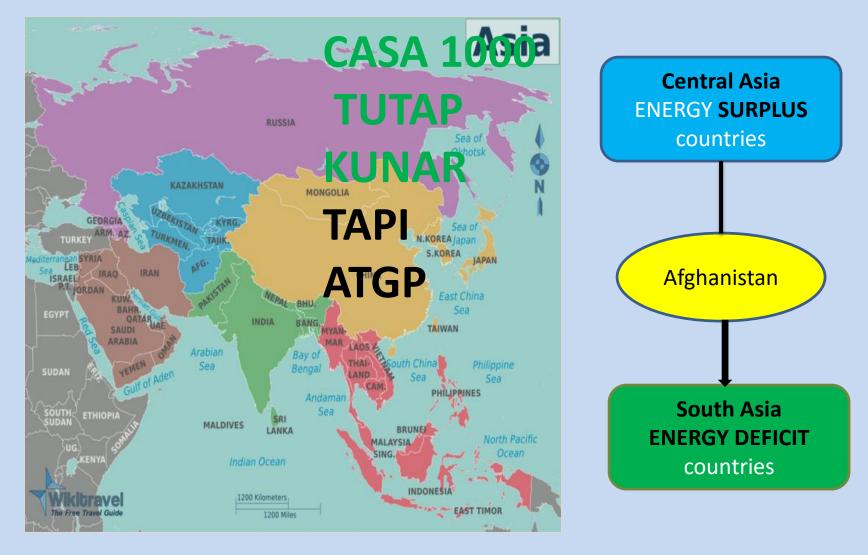
		Investment optimized scenario [million USD]			
Overview on Investment type	Subtotal by project	Stage A [up to 2015]	Stage B [up to 2020]	Stage C [up to 2025]	Stage D [up to 2032]
Generation Development	7,329.6	327.6	348.5	981.5	5,671.9
Major Transmission Projects	1726.8	595.0	676.9	212.9	242.0
Transmission Development within the provinces	1,040.1	290.1	439.8	215.1	95.0
Total:	10,096.40	1,212.70	1,465.2	1409.5	6,009.0

Source: Afghan Power Sector Master Plan (2013)

 \rightarrow 65 % in rural and almost 100 % in urban areas will be connected to the grid

ightarrow Share of domestic generation will be 68 %

II. JOINT Energy Projects and Regional Interests



CASA-1000

Basis for Central Asia South Asia Regional Energy Market (CASAREM)

Objective:

 Supply of 1,000 MW power from Kyrgyzstan and Tajikistan through Afghanistan to Pakistan

- ■Additional 300 MW to Afghanistan (!!!!)
- Supply of Power for 5 months (summertime)
- Total Project Cost : 1.17 Billion USD
- Donors: World Bank (WB), Islamic Development Bank (IDB), European Investment Bank (EIB) and USAID
- Completion Date: 2020
- Latest: Bidding Process for Convertor Station in Sangtuda (TAJ) and Nawshera (PAK) is launched

TUTAP

Turkmenistan-Uzbekistan-Tajikistan-Afghanistan-Pakistan Interconnection

Objective:

 Transmission of thermal and hydro power from Central Asia to Afghanistan and Pakistan

 Unification of the Afghan Power Grid , in order secure sustainable power supply to Afghanistan and Pakistan

o Total Project Cost : > 1 Billion USD

Donors: Asian Development Bank (ADB)

Current Status:

- Completion Date: 2020 (tentative)
- Realization depends on the outcome of negotiations between the involved countries.



KUNAR Hydro Power Projects

Energy and Trust

Option 1 : KUNAR A-Shal (789 MW/4,772 GWh, Projected Completion 2022, Cost = 2 billion USD]

Status:

✓ Feasibility Study completed in 2008

→ Upon completion (within 5 years), the project could contribute to domestic energy demand and also as additional supply source for transmitting of power to Pakistan

Option 2: 1,200 MW Joint-Energy-Project (AFG-PAK)

Status:

- ✓ Pre-Feasibility Study completed
- ✓ World Bank indicated willingness to support the process technically

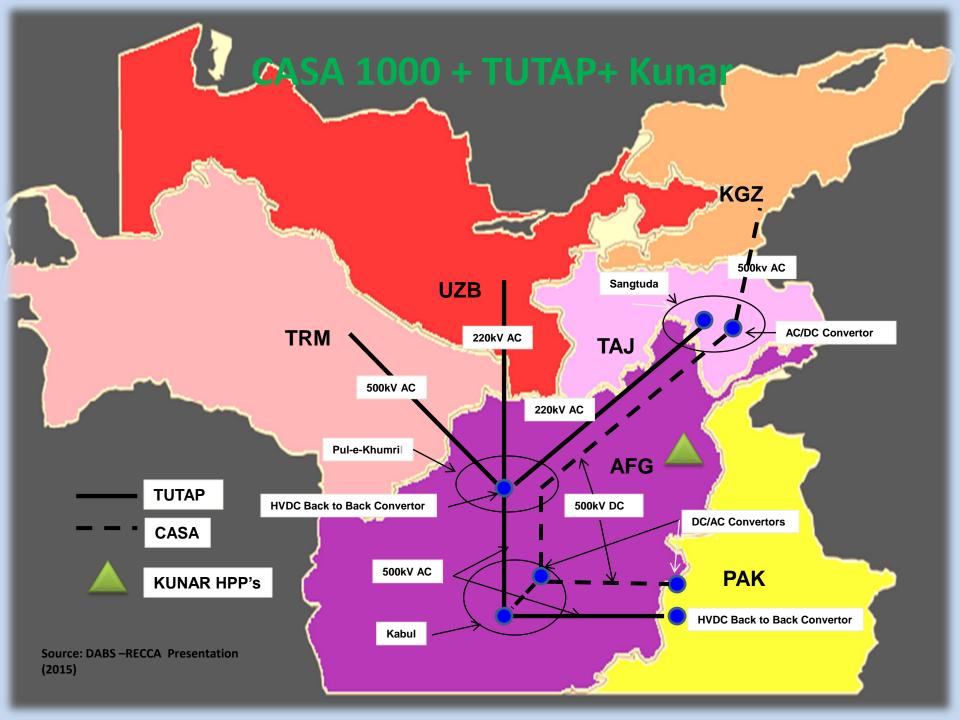
Benefits:

- -Increase of AFG revenues and energy security
- Economic hydro energy supply to Pakistan
- Basis for "AFG-PAK"- trust building



Source: <u>www.google.de-</u> Watapur District, Kunar, AFG

Beginning



BENEFITS of JOINT ENERGY PROJECTS for Afghanistan and the Region

Economic:

- Generation reserves can be utilized more economically in an interconnected regional system
- Increase of revenues for exporting countries and Afghanistan as transit country and later as an exporter
- Decrease of power shortage
 in importing countries and
 increase of revenue through
 cost efficient and eco-friendly
 energy supply
- Less dependency on cost intensive petroleum products for importing countries
- Technology transfer and
 Human Resource Development
 more possible and accessible
 Enhancement of foreign
 investments

Political:

- Interdependency among countries lead to more cooperation in other fields
- Existing and future conflicts between countries can be solved in a more peaceful environment and the light of common interests
- Security improvement through joint initiatives in the related fields
- More trust of people in national governments through provision of better services, which lead to strengthening of the society and increased legitimacy of the government

Social:

- Better living conditions (health, education) for the people through growth economic in the region
- More Employment opportunities, especially for young generation
- Poverty Reduction through
 GDP growth
- Improvement of education and health standards, due to increment of national budget
- Cooperation between social society in the country and between CSO's contribute to a peaceful environment and cooperation (student exchange programs, cultural events etc.)

Opportunities for Afghanistan and the Region

<u>Pakistan</u>

Economic growth through energy transit and even export to neighboring countries

Cost efficient and reliable energy supply

Less dependency on
petroleum products (currently
50 % of export earnings!)

 Improvement of export opportunities of Pakistani products/ goods through
 Afghanistan to Central Asia
 Improved security and political stability through
 provision of social services
 (education, health etc.) by the government

More efficiency in agriculture and industry due to availability of financial resources

Afghanistan

 Economic growth through energy transit and even export to neighboring countries, especially Pakistan
 Less dependency on foreign aid- self-reliance!

Development of its infrastructure (roads, railway network) through energy trade revenues

Development of a sustainable mining sector through increased revenues and availability of infrastructure

Effective management of water resources (increment of storage capacity) through available domestic resources

Improved security and political stability through provision of social services (education, health etc.) by the

Dipl. **government** Network- NBN)

Central Asia

Economic growth through energy export to Afghanistan and South Asia (Pakistan and India)

Access to Indian and Pakistani products / goods in a more economic way, due to improved security situation

Further increment of revenues as transit route from South Asian and also Iranian exports to Russia and Europe

Growth of other sectors, such as transportation and services due to trade expansion

4 Lack of

Security in Afghanistan and the Region
Trust between AFG & PAK and PAK & INDIA
Strong Institutions (governmental and nongovernmental) and facilitators
Human Resources
Clear Strategies on national and regional level – "Where are you?" & "Where we want to be?"
Personalities who act as "influencer" (DeGaulle or Andenauer in Europe during 1950s)

RECOMMENDATIONS

" Peace, Stability and Economic Growth through JOINT energy projects"

Regional Level (Energy Office)
Establishment of an "Regional Energy Office" consisting of members of the national "Energy Task Force" teams of each country in Kabul





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