

Islamic Republic of Afghanistan
Overview of Power Sector Status

Task Force Meeting
Energy Charter Treaty

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Current Status of Electric Supply in Afghanistan

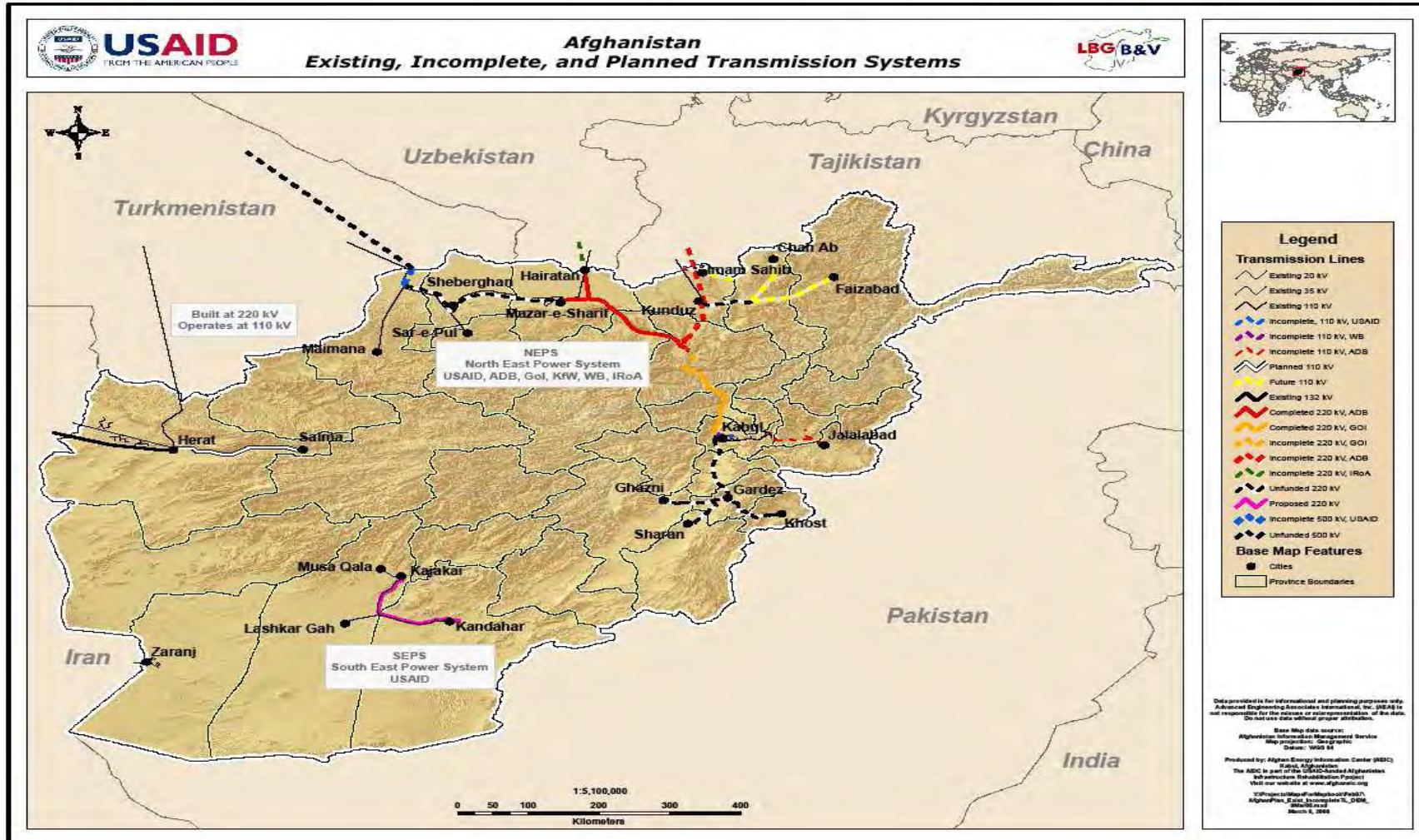
- Approx. 20% of population has access to electric energy
- 543,000 connections to public grid – 33% in Kabul
- Afghanistan National Development Strategy mandates expanding existing networks to serve 90% commercial, 65% residential in urban areas, and 25% rural household (2010)
- Most of current generation is from 30-40 year old hydro and thermal plants, most of which are being upgraded
- Considerable development funds being spent on diesel fuel; meets only a small portion of immediate needs; not sustainable

Afghanistan – Electric Power System Snapshot - 2008

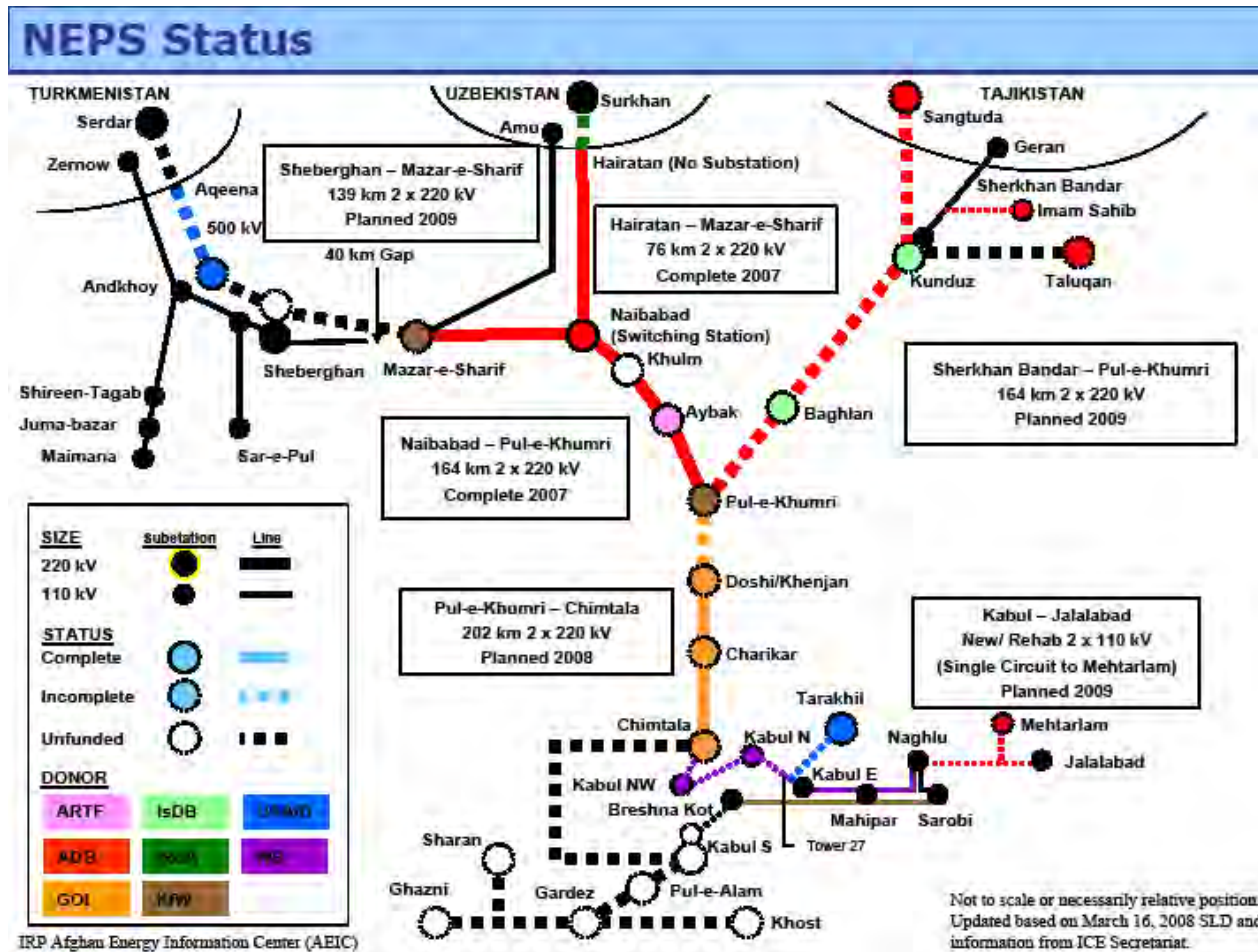
Current operating capacity	360 MW
Imported Power	100 MW
Current Annual Energy Consumption in AFG	1,200 GWh
Estimated unconstrained winter peak demand in AFG	530 MW
Current shortage in Kabul (winter)	200+ MW

Load shedding both in summer and winter

Transmission System – Existing and under construction



NEPS Diagram



Medium Term Projection

Estimated Unconstrained Power Demand in MW*

Year	Kabul	Other NEPS	NEPS
2008	530	n/a	530
2010	720	430	1,150
2015	1,240	970	2,210

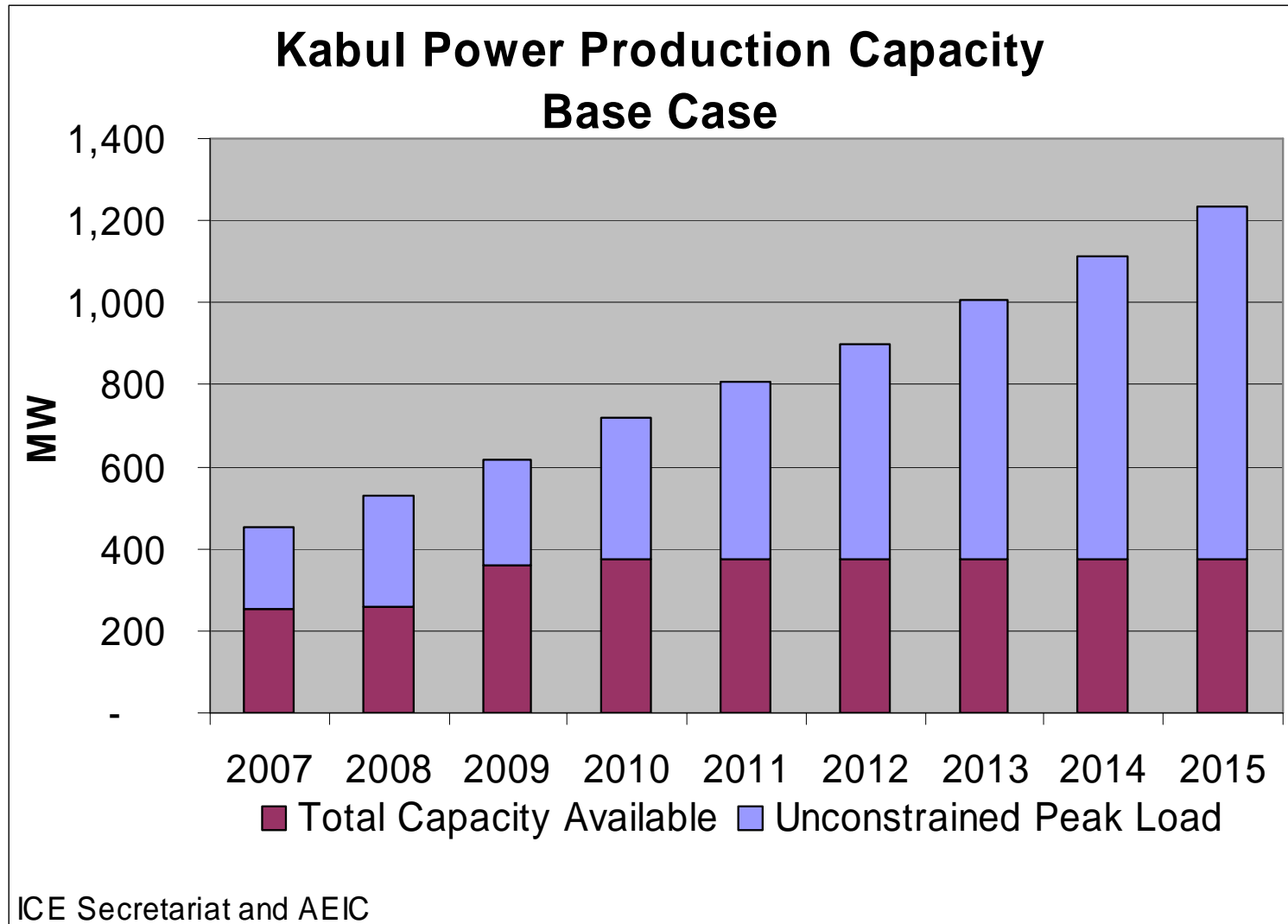
* Afghan Energy Information Center Forecast

Planned Generation inside Afghanistan

Planned Generation

- Kabul Diesel 108 MW (2008-09) – under construction
- Sheberghan Gas fired 105 MW (2011)– under active study
- Surobi II Hydro 180 MW – Feasibility Study
- Baghdara Hydro 280 MW – Feasibility Study
- Panshir (Gulbahar) Hydro 120 MW – Feasibility Study
- Studies ongoing for small, mini, and micro hydro
- Aynak Copper mine Project Coal-fired 400 MW (200 MW to grid) – under negotiation

Significant Additional Capacity Required to Meet Demand



Import of Power - Initiatives

Tajikistan

- 150 MW by 2010; 300 MW by 2012/13
- Transmission lines and substations completed or under construction (2009 Dec commissioning)
- Tajikistan border to Pul-e-Khumri Node – 164 km
- PPA negotiations underway

Uzbekistan

- 150 MW by Oct 2008; 300 MW by 2010
- Agreements to build 43 km 220 kV two single circuits in Uzbekistan being signed
- Transmission lines and substations completed or under construction (2008 October commissioning)
- Hairatan to Kabul (Chimtala) Node – 420 km

Import of Power – Initiatives 2

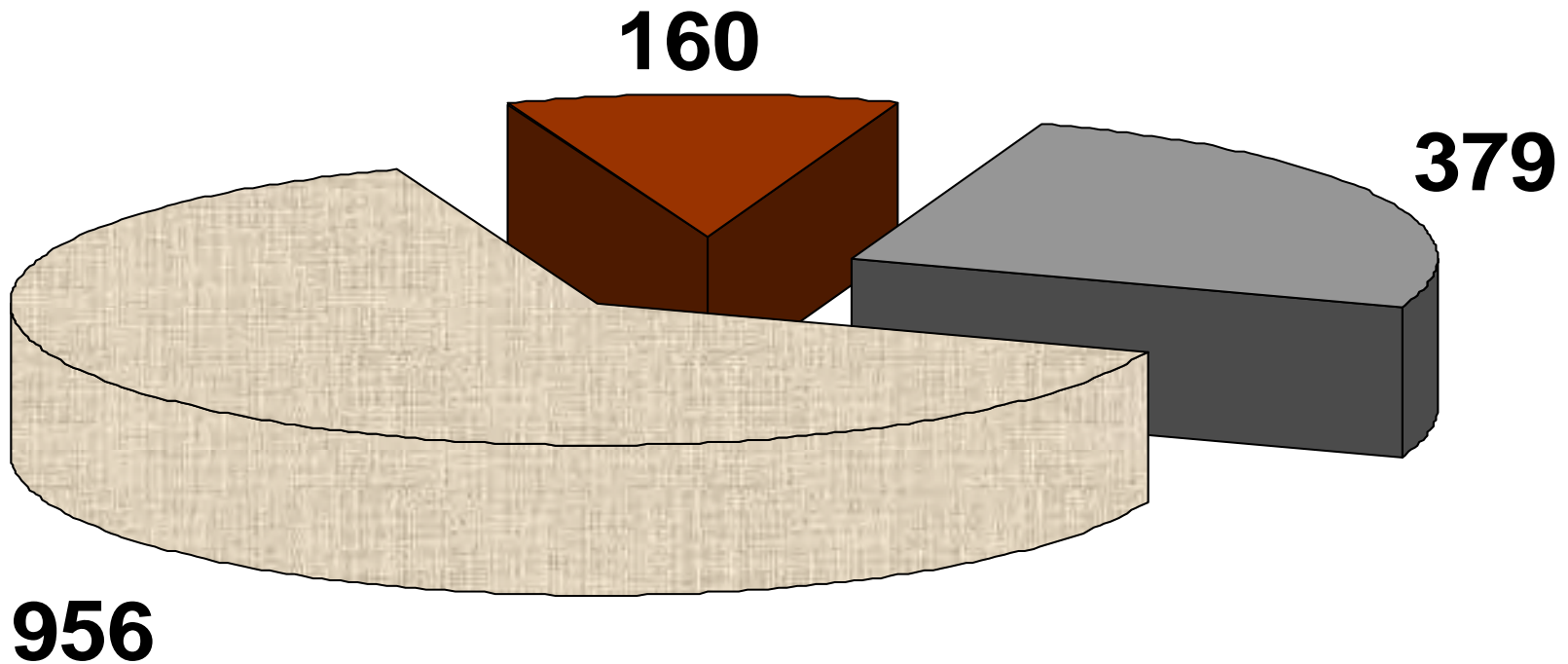
Turkmenistan

- 300 MW by 2011 (with transaction time of 6 months max.)
- Maximum import possible 800-1000 MW
- Transmission lines and substation committed funding
- Aqeena to Naibabad Node – 271 km
- Protocol of Technical Experts signed April 9, 2008

CASA 1000 (4000)

- 300 MW in 2013/14

Current NEPS Funding Needs M US\$



■ Donor Funding ■ Gov IRoA Funding ■ Unfunded

Commercial Reforms/Initiatives

- Pending Energy Charter Treaty membership in Cabinet
- Incorporation of Government owned Electric utility (DABS)
- Establishment of electricity Regulator
- Opportunity private investment in power sector

Long term Outlook

- Afghanistan – a power transit Country
 - Energy Charter Treaty: accession ongoing
 - CASA 1000 (4000)
- Extended National grid
 - NEPS Phase 2
 - SEPS
- Regional Distribution Expansion
- Rural Electrification

