



Energy Security & Sustainable Growth

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Power Sector: Current Status At a Glance

Generation Growth	: 10 % (Av.)
Installed Capacity (Inc. Captive & RE):	22,787 MW
Power Import	: 1,160 MW
Consumers	: 36.0 Million
Transmission Line	: 12,068 Ckt. km
Distribution Line	: 5,53,000 km
Distribution Loss (FY 2018-19)	: 9.35 % (technical & Non technical)
Per Capita Generation	: 510 kWh
Access to Electricity	: 95%

Achievement of Last 11 years in Power Sector

Particulars	2009	2020	Achievement
Power Plants (No)	27	137	(+ 110)
Installed Capacity (MW)	4,942	22,787*	(+ 17,845)
Highest Generation (MW)	3,268 (6 Jan 2009)	12,893 (29 May 2019)	(+ 9,625)
Power Import (MW)	-	1,000 (Bheramara) +160 (Comilla)	(+ 1,160)
Consumers (million)	10.8	36.0	(+ 25.2)
Transmission Line (Ckt Km)	8,000	12,068	(+ 4,068)
Distribution Line (Km)	2,60,000	5,53,000	(+ 2,93,000)
Grid sub-station capacity (MVA)	15,870	43,559	(+ 27,689)
Access to Electricity (%)	47	95	(+ 48)
Per Capita Generation (KWh)	220	510	(+ 290)
Distribution System Loss (%)	14.33 (FY 2008-09)	9.35 (FY 2018-19)	(-) 4.98

* Captive & RE (hydro, off-grid solar etc.) Included

Targets for 2030

Item	Target
Generation Capacity	45,276 MW
Total Transmission lines	28,320 ckt. km
Total Transmission Substation Capacity	178,635 MVA
Total Distribution lines (33 kV and below)	660,226 km
Total Distribution Substation (33/11 kV) Capacity	80,040 MVA
Total Distribution Transformer (11/0.4 kV) Capacity	68,780 MVA

Cost estimates of the Power Sector

Sub sector	2016-20*	2021-25**	2025-30***
Generation (including RE & EE) (bn BDT)	3174.96	2752.89	1481.69
Transmission (bn BDT)	752.59	356.84	415.68
Distribution (bn BDT)	1347.37	1148.63	590.32
Total (bn BDT)	5274.91	4258.36	2487.69
Total (bn USD)	64.33	51.94	30.34

*As per SDG Action Plan **As proposed in 8th FYP *** As per present generation plan (January 2020) & Revisiting PSMP 2016

Challenges

- Depleting natural gas reserve & volatile international fuel market
- Budgetary Constraint: Fund requirement during 2017-41 for Generation 150 bn US\$, Transmission 31 bn US\$ & Distribution 35 bn US\$ (As per Revisiting PSMP 2016)
- Reliability of transmission and distribution network and providing quality power
- Another major challenge during implementation of transmission and distribution projects is getting Right-of-Way (RoW). Presently there is no provision for compensation to the affected people for the RoW except a lump sum amount for crop and infrastructures over the land.
- For ground mounted solar power plant: Obtaining suitable land, difficulties in constructing evacuation line over privately owned land, high cost of land acquisition and development etc. Furthermore, solar irradiation in Bangladesh is quite low.

Challenges

- Wind speed in Bangladesh is of low to moderate. Moreover, there is no more potential for hydro power in the Hill Tracts area.
- For development of Waste to Energy: lack of technology, high production cost/tariff and lack of initiative from the City Corporations.
- For energy efficiency, major challenges are lack of skilled manpower in energy efficiency (EE), awareness in energy efficiency, incentive & investment on EE programs, public willingness to accept new energy efficient equipments.
- Challenge in coal transportation
- For implementing underground distribution system projects not getting road cutting permission from the City Corporations in time is also an obstacle.
- Human resource development

Way Forward

- Diversification of fuel and efficient use of fuel
- Diversifying Financial Resource: Export Credit Agency (ECA) financing, private sector financing in Independent Power Producer (IPP) projects, joint venture project financing, G to G financing, raise fund from capital market and bond market, use the PPP model and FDI
- Implementing system automation, GIS, SCADA etc.
- Formulation of electricity rule with the provision to give compensation for constructing tower and right of way
- Roof top and floating solar
- Off-shore wind farm

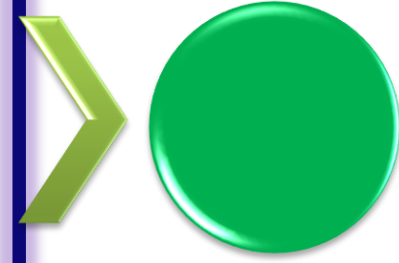
Way Forward

- For development of waste to energy projects coordination between power sector agencies and city corporations need to be strengthened. Considering the positive impact of these projects on the environment, this sector may be subsidized.
- Skilled manpower in the field of energy efficiency needs to be developed by capacity building through proper training
- Intensive public awareness program on energy efficiency may be taken up.
- Ensuring adequate fuel supply: proper distribution of imported fuel throughout the country necessary infrastructure such as: LNG terminal, deep sea port along with associated gas pipeline, road and railway networks need to be constructed
- Coordination among the utilities, city corporations and city development authorities need to be strengthened for getting road cutting permission easily and in time
- Local and foreign training through BPMI or other similar organization



The Power Division is committed to ensure reliable electricity for all by 2021 through its strategic and long-term planning.

**“Sheikh Hasina-ar Uddog,
Ghore Ghore Biddut”**



Thank you

