CII National Conference
Capital Goods Industry: Emerging Opportunities Attached to Power Sector

Date 26.11.2012, New Delhi

CAPACITY ADDITION (1/1)
In 11th Plan

Total Capacity	UoM	State Sector	Central Sector	Private Sector	Total	% Share
Thermal	MW	11691	12158	21739	45588	67.49
Coal		10337	11355	19209	40901	60.55
Gas		1355	803	2531	4689	6.94
Diesel		-2	0	0	-2	0.00
Hydro		1594	1523	1219	4336	6.42
Nuclear		0	880	0	880	1.30
Total		13285	14561	22958	50804	75.21
Renewable Energy Sources		2538	0	14205	16743	24.79
Total		15823	14562	37163	67547	100
% Share		23.43	21.56	55.02		

Source - CEA Input Paper 11th Plan and CEA Monthly Report – Mar 12; Captive Generation added during 11th Plan: 9300 MW approx. (Not included in above)

CAPACITY ADDITION (1/2)
In 12th Plan

Total Capacity	UoM	State Sector	Central Sector	Private Sector	Total	% Share
Thermal	MW	12340	11426	40015	63781	67.6
Coal		12080	10600	40015	62695	66.5
Gas		260	826	0	1086	1.2
Hydro		1456	5632	2116	9204	9.8
Nuclear		0	2800	0	2800	3.0
Total		13796	19858	42131	75785	80.4
Renewable Energy Sources					18500	19.6
Total					94285	100
% Share		18	26	56		

Source – Report of Working Group on Power for Twelfth Plan; Additional Captive Generation in XIIth Plan - 13000 MW (Not included in above)

Total investment estimated is around Rs. 4.3 lacs crs, out of which 70% amount is used to import machinery or capital goods.

TRANMISSION CAPACITY(2/1)
11th Plan

Transmission Lines	UoM	Total
765 kV	Ckt. km	4026
400 kV		37645
220 kV		25535
+/- 500 kV HVDC Lines		3398
Total		**70604**
Substations		
765 kV	MVA	23000
400 kV		58085
220 kV		67277
Total		**148362**
+/- 500 kV HVDC Converter/ BTB Stn Converter Terminal	MW	**3000**

Source – CEA Input Paper 11th Plan and CEA Monthly Report – Mar 12

TRANMISSION CAPACITY(2/2)
12th Plan

Transmission Lines	UoM	Total
765 kV	Ckt. km	27000
400 kV		38000
220 kV		35000
+/- 500 kV HVDC Lines		9440
Total		**109440**
Substations		
AC Substation Capacity	MVA	**270000**
+/- 500 kV HVDC Converter/ BTB Stn Converter Terminal	MW	**13000**

Source – Report of Working Group on Power for Twelfth Plan

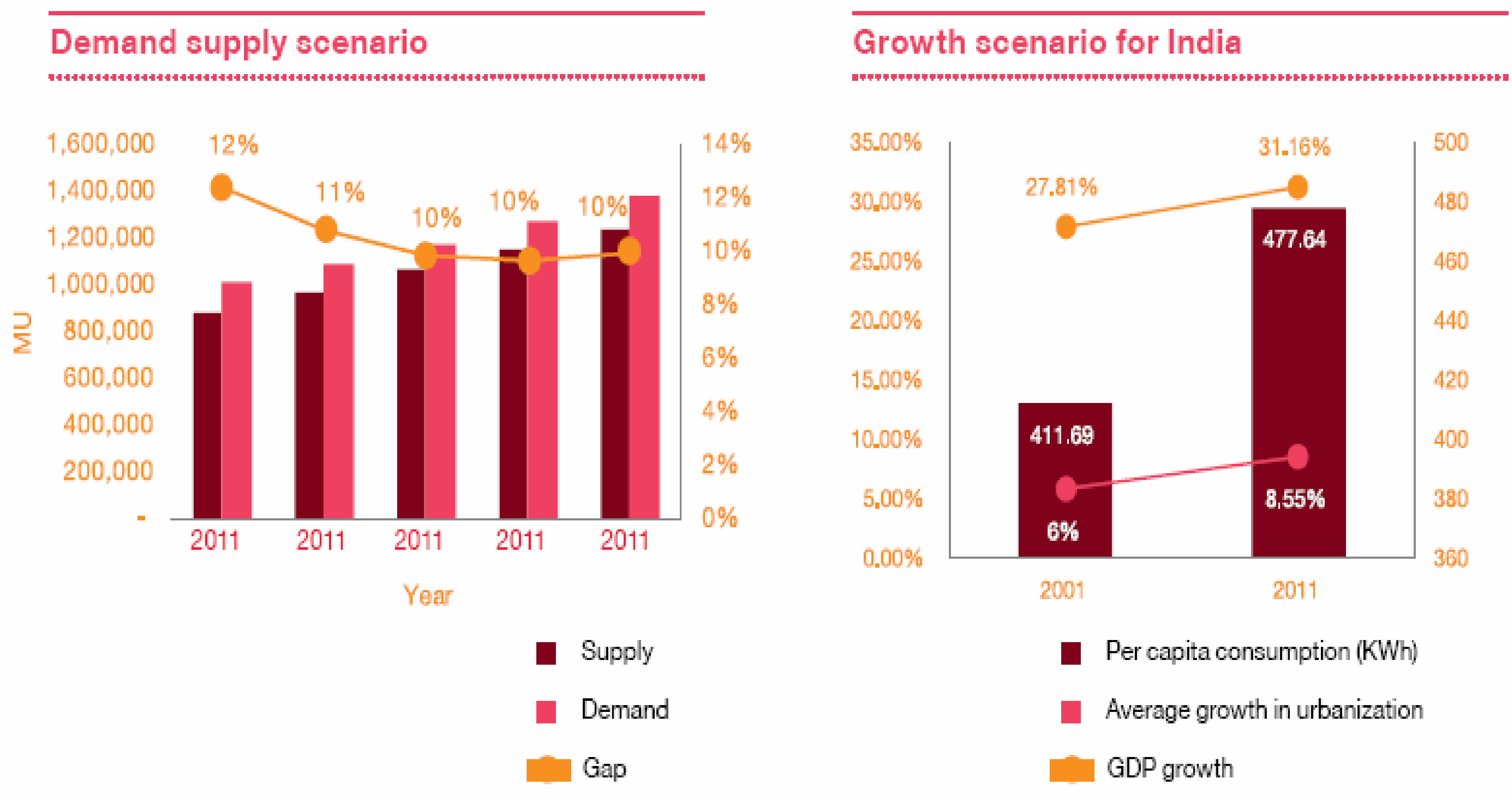
As per Report of Working Group on Power , the total fund requirement for development of transmission system is estimated to be of the order of Rs. 1,80,000 crore *(Rs. 1,00,000 Cr in Central Sector, Rs. 55,000 Cr in State Sector and Rs. 25,000 Cr in Private Sector).*

KEY DEVELOPMENTS IN DISTRIBUTION SECTOR (3/1)

TATA POWER-DDL

- RGGVY for Rural Electricity Infrastructure and Household Electrification for providing 90% Capital Subsidy for rural electrification infrastructure projects through:-
  - Creation of Rural Electricity Distribution Backbone (REDB) with one 33/11 kV (or 66/11 kV) substation in every block where it does not exist.
  - Creation of Village Electricity Infrastructure (VEI) for electrification of all unelectrified villages/habitations and provision of distribution transformer(s) of appropriate capacity in every village/habitation.
  - The scheme has been successful in providing electricity to 230,747 villages and electrification of 17,882,708 BPL households which is 75% of the target.
  - The investment required for electrification in India is estimated to be around US$ 6.4 billion in off grid, mini rid and on grid segments.
- Smart grid interventions in distribution: The Power Ministry is finalizing eight smart grid pilots worth 500 crore INR in the country.
- Load Growth of ~8% with the GDP growth

GROWTH SCENERIO (4/1)



Source: CEA, Planning commission & PwC analysis

OPPORTUNITIES (4/2)

- *The gap between what can be achieved and what is currently present, uncovers a number of possibilities and opportunities for growth. Opportunity for developing evacuation capacities and supply related OEMs like conductor manufacturing , insulator manufacturing, tower fabrication and EPC.*

- *Network requirement to electrify 3lac villages and meet 8 % load growth*

CHALLENGES (5/1)
BTG Market yet to be tapped

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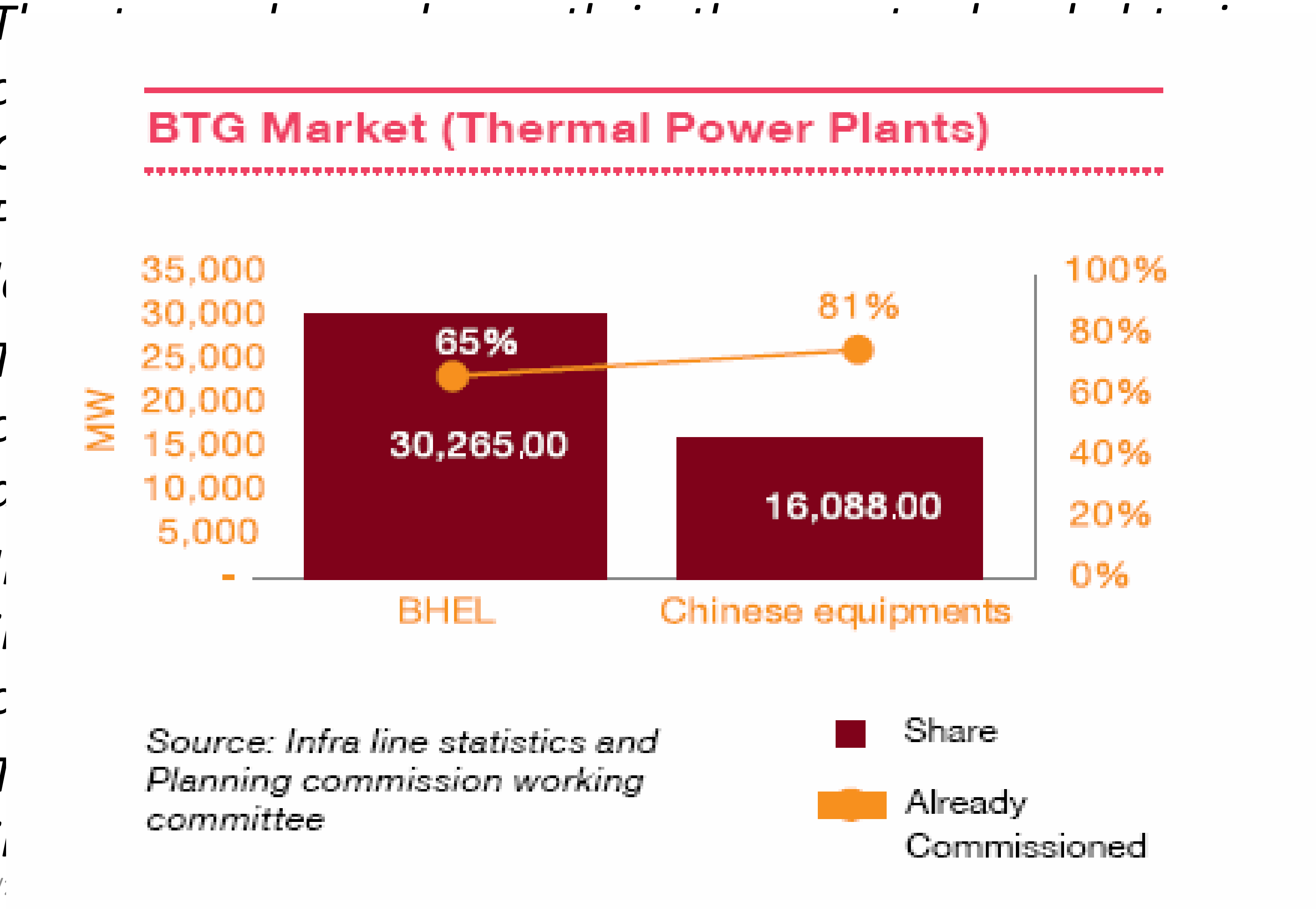

CHALLENGES (5/2)

- *Quality of equipment's and machineries*
- *Sequence Supply*
- *Challenges faced during execution at site – unskilled workers, welders, electrician and fitters.*
- *Transportation due to poor connectivity*
- *Cost Competitiveness and timely delivery of equipment*
- *Product Competitiveness vis a vis inflow of latest technology from developed countries like France and Germany*

THANK YOU