Box-A Presentation by Gujarat govt to Piyush Goyal

Gujarat Power Scenario in 2002

- State's installed capacity was 8,756 MW
- Peak deficit of 20%
- Power cut / Load shedding of 4-5 hrs
- Low voltages due to inadequate transmission network and substations
- Erratic power supply due to mixed load of agriculture and villages
- T&D losses as high as 34.20% - rampant power theft
- Severe voltage fluctuations and transformer failure issues
- Problem of phase converter
- Retail tariff – not cost reflective
- Poor billing and collection efficiency
- Loss of Rs 2,543 crores in FY 2000-01

Fuel Wise installed capacity – Gujarat

	As on 31.3.2002		As on 31.3.2014	
Fuel	**MW**	**Share %**	**MW**	**Share%**
Coal & Lignite	5,599	63.94%	13,000	54.43%
Gas	2,196	25.08%	5,268	22.06%
Hydro	547	6.25%	779	3.26%
Nuclear	315	3.60%	559	2.34%
Renewable	99	1.13%	4,277	17.91%
Total	**8,756**	**100%**	**23,883**	**100%**

Few highlights of Gujarat Power sector

Particulars	In 2002	In 2014	% Growth
Generation Capacity (MW)	8,756	23,883	173%
Transmission Substation (Nos.)	730	1,470	101%
Transmission Lines (KM)	31,012	50,131	62%
Distribution Lines (CKM) (HT+LT)	351,917	624,019	77%
Distribution Transformers (Nos.)	212,973	726,559	241%
Distribution Feeders (Nos.)	4,954	12,028	143%
Consumers (Nos.)	0.73 Crs	1.30 Crs	78%
Agriculture Consumers (Nos.)	6 Lakhs	11 Lakhs	83%
Consumption (Billed Units) (MUs)	23,129	50,431*	118%
Distribution Losses (%)	30%	18.55%	-
Revenue from sale of power (Rs Crs.)	7,274	26,000	257%
Profit / Loss (in Rs Crs.)	2,543 (loss)#	539 (profit)*	-

 # Details for FY 2000-01 ** Details for FY 2012-13*

Capacity addition planned (2014-17)

Name of Plant	Ownership	Fuel	MW	Likely commissioning
Sikka Unit 3&4	GSECL	Coal	500	2014-15
Bhavnagar Energy Co (Unit 1 & 2)	BEECL	Lignite	500	
UMPP – Tilaiya	JIPL	Coal	300	2015-16
Wanakbori Ext Unit 8	GSECL	Coal	800	
Mouda Stage II	NTPC	Coal	240	
Lara	NTPC	Coal	140	
Kakrapar Ext	NPCIL	Coal	476	
Shapoorji Pallonji Energy	SPEGL	Coal	800	
Essar Power Gujarat Ltd.	EPGL	Coal	800	
GIPCL Exp Stg III	GIPCL	Lignite	500	2016-17
Lara	NTPC	Coal	140	
Dhuvaran STPP Stage I	NTPC	Coal	660	
Khargone STPP	NTPC	Coal	220	
Gadarwara STPP Stage I	NTPC	Coal	220	
		Total	**6,296**	

Installed capacity – Gujarat

Installed Capacity	As on 31.3.2002		As on 31.3.2014	
Total	**8,756 MW**		**23,883 MW**	
- State Owned	5,644	64%	8,447	35%
- Private IPPs	1,544	18%	11,596	49%
- Central Sector	1,568	18%	3,840	16%

Category wise Consumers (as on Mar-2013)

Category	Consumers (Nos.)	% share wrt total	Consumption (MUs)	% share wrt total
Residential	9,708,153	79.16%	8,012	13.66%
Commercial	1,205,410	9.83%	194	0.33%
Industrial	277,422	2.26%	24,859	42.37%
Agriculture	991,185	8.08%	15,116	25.76%
Water Works	54,288	0.44%	1,302	2.22%
Street Light	26,787	0.22%	223	0.38%
Railways & Licensee	14	0.00%	8,965	15.28%
Total	**12,263,259**	**100%**	**58,671**	**100%**

Steps taken to turnaround sector

Aggressive Capacity addition

- Own Generation = 2,800 MW
- Competitive bidding = 7,615 MW
  (PPA signed; Tariff Rs 2.25 - 2.89; Already commissioned 5,005 MW)
- Central Utilities = 5,800 MW
  (PPA signed; Commissioned 2,300 MW)
- Present installed capacity = 23,883 MW
  - Conventional = 19,606 MW
  - Renewable = 4,277 MW
- Present peak demand = 13,740 MW
- Hence, Gujarat has become power surplus state in a period of 10 years
- Capacity addition planned in 12th Five year plan – 6,296 MW

Steps taken to turnaround sector

Steps taken – Transmission

- Private sector participation saved investment in generation and hence used in transmission & distribution
- Investment made from 2002 onwards – Rs 13,050 Crs. More than 400% rise (up to 2001-02 – Rs 3,150 Crs)
- Substations increased from 730 to 1,470 Nos.
- Transmission lines increased from 31,012 to 50,131 ckt kms
- Resulted to 99.46% transmission system availability and 3.89% transmission losses