

2.15. Power Development

2.15.1. The Power sector is highly capital intensive and faces a number of challenges. Lack of adequate financial resources / support happens to be the major reasons for arranging the Generating / Installed capacity to meet the entire needs of the people in the State. The investments made in power development in the State at the end of the Eighth Five Year Plan (1992 – '97) was Rs.4584.88 crore and for the Ninth Five Year Plan (1997 – 2002), it was Rs.4922.82 crore. The investments made during the first four years of the Tenth Five Year Plan (2002-03 to 2005-06) for the power development is Rs.5564.59 crore.

2.15.2. In order to bring financial stability, to off-set power shortage in the State particularly during peak hours and to enhance reliability and to maintain quality of power supply, the Government of Tamil Nadu has taken up a series of policy measures to implement effective power sector reforms in the State during Tenth Five Year Plan. The power sector strategies aimed at the following well defined objective, namely - (i) sustained power supply for economic growth and development in the State, (ii) production of power at optimum cost, (iii) to supply reliable / quality power supply, (iv) appropriate financial stability to the Tamil Nadu Electricity Board. During the Tenth Five Year Plan period, the State Government had mainly pursued to the following twin objectives viz., - (i) Electricity must be supplied under the most efficient conditions in the State in terms of quality and cost in order to support economic development and (ii) the power sector should be self-supporting and there should be a net generation of financial resources for the State. To achieve the above objectives, efforts were made to increase the Plant Load Factor (P.L.F.) of Thermal Stations in the State with the object of raising the Revenue component of the State Government and thereby increasing the financial status of the Tamil Nadu Electricity Board (TNEB). High priority was given for the renovation and modernisation of power plants. Measures were also taken to reduce T & D losses by providing adequate outlay / support to power sector / TNEB apart from Research and Development activities in the State.

2.15.3. The performance of the power sector during the first four years of the Tenth Plan Period - (2002-03 to 2005-06) are shown in the table below:

Table 2.2 : Performance of the power sector

Annual Plan Period	Installed Capacity at the disposal of the State (MW)	Peak demand (Sustained) MW)	Annual Gross Generation (MU)	Per Capita consumption (Kwh)
2002-03	8268	6957	46389	740
2003-04	9319	7228	49498	780
2004-05	9531	7473	52345	815
2005-06	10031	8301	56006	860

Source: Statistics at a Glance, Tamil Nadu Electricity Board.

2.15.4. The TNEB occupies third rank in the list of top three SEBs in the country, along with Maharashtra and Gujarat, in terms of the size of its operation gauged by the generating capacity at its command, the amount of energy sold and the number of consumers serviced. Tamil Nadu ranks sixth in terms of per capital electricity consumption among States. Extending electricity to rural areas and promoting electrification of agricultural pumpsets have also been accorded top most priority in the TNEB's agenda. As early as 1992, TNEB had reached 100% electricity to all the inhabited villages in Tamil Nadu and the number of electrified agricultural pump sets in the State has registered a phenomenal growth. The physical achievements registered (cumulative) of the Tamil Nadu Electricity Board at the end of the Annual Plan 2005-06 are as shown below:

?	Number of Towns electrified :	439
?	Number of Villages electrified:	14621
?	Number of Hamlets electrified:	48117
?	No. of Adi- Dravidar colonies :	26764
?	No. of Agricultural Pumpsets connected:	768052
?	No. of huts electrified :	1020509
?	Consumers served (lakh nos.)	178.03

2.15.5. TNEB has programmed to create an additional capacity of about 30% by March 2007, i.e., 2631 MW which includes 436 MW from State

sector projects, 408 MW from Private sector projects, 1289 MW as share from Central sector projects and 500 MW from joint sector projects during the Tenth Plan period (2002-2007).

2.15.6. Two mega projects each with 1000 MW. capacity under joint venture, one with the National Thermal Power Corporation (NTPC) at Ennore and the other with Neyveli Lignite Corporation (NLC) at Tuticorin which are likely to take off in the XI Plan period (2007-2012). Also efforts have been taken up to augment the generating capacity in the existing Thermal stations by 2500 MW. by the end of XI plan period (North Chennai, Stage-II – 500 MW, Mettur, Stage-III – 500 MW. Ennore Annexe – 500 MW and Tuticorin Annexe – 1000 MW. respectively).

2.15.7. The daily average grid consumption during April to December 2006 was 167.42 MU as against 153.44 MU during the same period in 2005-06. The maximum daily consumption reached during 2005-06 is 172.410 M.U. The maximum instantaneous Peak Demand reached during 2005- 2006 is 8301 M.W.

2.15.8. In Transmission also, there has been a phenomenal expansion of the network. From just 56 substations during pre-plan period (31.3.1951), the number has increased to 1110 at the end of 2005-06 and transmission lines from 1,819 ckt. kms. to 18,879 ckt. kms. during the same period. The Distribution network has also been expanded enormously, that is, from 5,117 HT ckt. kms, and 5,728 LT ckt. kms., in Pre-plan period (31.3.1951) to 1,30,234 HT ckt. kms. and 4,87,466 LT ckt. kms respectively at the end of the Annual Plan 2005- 2006. The number of Distribution Transformers has gone up from 1,591 (Pre-Plan 31.3.1951) to 1,67,120 2005- 06. TNEB is making efforts to reduce T & D losses, outages and interruptions and loss of power due to theft by upgradation and modernisation of sub-transmission and distribution segments in the State. The ultimate aim of the TNEB is to bring down the line losses from the present level of over 18% to 12% by a series of policy measures by the end of the Tenth Plan Period apart from the R&D activities for reactive power compensation, improvements in the designs of T&D factors, energy conservation / savings measures etc.

2.15.9. The Tamil Nadu Electricity Board has also posed improvement schemes to the Rural Electrification Corporation and PFC for sanction towards reducing T&D losses over a period of five years. The TNEB has proposed to implement the above plan in a phased manner by availing loan assistance from APDRP, NABARD, REC and PFC in the State. At present, the T&D losses in Tamil Nadu are estimated at 18%.

2.15.10. The capacity addition during the Annual Plan 2007- '08 from generation schemes will be 11.4 M.W. In the sphere of the T & D segment 13 new sub stations; 171 ckt. kms. of EHT lines; 570 Kms. of H.T. lines; 1900 Kms. of L.T. lines; and 2280 Distribution Transformers are proposed to be established. Under Rural Electrification component, 7600 pumpsets are proposed to be electrified during 2007- 2008.

2.15.11. The agreed outlay of Rs.1011 crore has been provided for Power Development in the Annual Plan 2007-08. Of which, an outlay of Rs.202.20 crore and Rs.8.39 crore is set apart for Scheduled Caste Sub Plan and Tribal Sub Plan respectively.