

## Tamil Nadu: Current Power scenario and projects in pipeline

1. Tamil Nadu per capita consumption is over 1000 Units, which is as against 11<sup>th</sup> plan national target of 1000 units. Presently, the national per capita consumption is 635 units.
2. All the villages in the state are fully electrified.
3. Number of consumers as on 30.04.09 is 2.03 Crores.
6. Total Number of Sub-Stations Commissioned as on 31.03.2009 : 1259 Nos.
7. Length of EHT & HT Lines erected: 1.64 Lakhs ckt kms.
8. Maximum demand met on a single day on 12.05.09 is 214.385 MU.
6. Gross Energy Generation during 2008-09 is 64714 MU.
7. Sustained peak met On 30.06.08: 9459 MW.
8. Installed Generation Capacity is 15100 MW constitute of Conventional (10214 MW) and Non Conventional (4886 MW). Wind energy generation capacity:4310.6 MW. This accounts for about 42.35 percent of the total capacity created in the country.

### Power availability projection for the next five years

Year	Installed Capacity MW	Capacity Addition during the year MW	Availability during the year MW	Total net availability in MW
	A	B	C	D
2009-10	11371	1157	955	9445
2010-11	12830	1459	1189	10634
2011-12	15122	2292	1948	12582
2012-13	15969	847	720	13302
2013-14	17329	1360	1156	14458

\*Based on the available capacity as on mar-09 (Infirm and seasonal powers are not considered)

\*\* Spinning reserve is considered as at least 5% of installed capacity

### Proposed Capacity addition during 2009-10

Name of the Projects	Type	Sector	Installed capacity	Availability	To be commissioned during
Neyveli TS-II Unit - I (1x250MW)	Thermal	Central	163	138.55	Feb-10
Kudankulam APS Unit -I &2 (2x1000MW)	Nuclear	Central	925	786.25	Dec-09 for Unit-I Mar-10 for Unit 2
Kaiga APS Unit -IV (2x220MW)	Nuclear	Central	36	30.6	Dec - 2009
Periyar vaigai SHEP -I (2x2MW)	Hydel	State	4		Dec - 09
Periyar vaigai SHEP -II(2x1.25)	Hydel	State	2.5		Dec - 09
Periyar vaigai SHEP -III(2x2)	Hydel	State	4		Dec - 09
Periyar vaigai SHEP -IV(2x1.25)	Hydel	State	2.5		Dec - 09
Bhavani Barrage - I (2x5MW)	Hydel	State	10		February -10
Bhavani Barrage - II (2x5MW)	Hydel	State	10		February -10
<b>Total</b>			<b>1157</b>	<b>955.4</b>	

### Proposed Capacity addition during 2010-11

Name of the Projects	Type	Sector	Installed capacity	Availability	Scheduled month of commissioning
NTPC-TNEB at Vallur Stage - I (2x500MW)	Thermal (share)	JV	375	318.75	Oct - 10 (Unit-1).
Bhavani Kattalai Barrage - II (2x15MW)	Hydel	State	30		Dec-10
Bhavani Kattalai Barrage - III (2x15MW)	Hydel	State	30		Dec-10
North Chennai TPS Stage - 2 Unit 1(600MW)	Thermal	State	600	510	Feb - 11 (Unit 1)
PFBR Kalpakkam (2x250MW)	Nuclear (share)	Central	167	141.95	2010-11
Simhadhri Stage -2 (2x500MW)	Thermal (share)	Central	95	80.75	Nov -10 (Unit 3)
Neyveli TS-II Unit - II (1x250MW)	Thermal (share)	Central	162	137.7	June-10
<b>Total</b>			<b>1459</b>	<b>1189</b>	

## Proposed Capacity addition during 2011-12

Name of the Projects	Type	Sector	Installed capacity	Availability	To be commissioned during
NTPC-TNEB at Vallur Stage - I (2x500MW)	Thermal (share)	JV	375	318.75	April - 11 (Unit -2).
NTPC-TNEB at Vallur Stage - II (1x500MW)	Thermal(share)	JV	375	318.75	Oct - 11 (Unit 3)
NLC-TNEB at Tuticorin Unit - I (2x500MW)	Thermal (share)	JV	247	209.95	Mar -12 (Unit 1)
NCTPS Stage - 2 Unit 2 (500MW)	Thermal	State	600	510	Aug -11(Unit 2)
Mettur TPS Stage - 3 (1x500MW)	Thermal	State	600	510	June - 11
Simhadhri Stage -2 (2x500MW)	Thermal (share)	Central	95	80.75	May - 11 (Unit 4)
<b>Total</b>			<b>2292</b>	<b>1948</b>	

## Proposed Capacity addition during 2012-13 & 2013-14

Name of the Projects	Type	Sector	Installed capacity	Availability	Scheduled month of commissioning
<b>2012-13</b>					
NLC-TNEB at Tuticorin Unit - 2 (2x500MW)	Thermal (share)	JV	247	209.95	Aug 2012
ETPS Annexe (1x600MW)	Thermal	S	600	510	Sep 2012
<b>Total (2012-13)</b>			<b>847</b>	<b>720</b>	
<b>2013-14</b>					
TNEB-BHEL JV at Udangudi (2x800MW), share	Thermal	JV	1200	1020	Mar-13(Unit-1) and Sep-13 (Unit-2)
Krishnapatnam / AP, UMPP 4000 MW (2X800 MW)	Thermal (share)	C	160	136	Sep 2013
<b>Total (2013-14)</b>			<b>1360</b>	<b>1156</b>	
<b>Five years capacity addition</b>			<b>7115</b>	<b>5968</b>	

## Implementation status of Power projects in Tamil Nadu:

- Contracts have been awarded for setting up of 1200 MW (two units of 600 MW each) capacity in North Chennai Thermal Power Station and works have also commenced. Loan agreements for an amount of Rs.2475 Crores and Rs.2175 Crores respectively have also been signed with Rural Electrification Corporation on 21.09.2008.
- Contract has been awarded for setting up of one additional unit of 600 MW capacity in Mettur Thermal Power Station and works have commenced. Loan agreement for Rs.2221.80 Crores, for 500 MW capacity has been signed with Power Finance Corporation, New Delhi on 19.05.2008 and remaining amount being raised internally.
- The process of setting up of a thermal power plant of 600 MW capacity at Ennore Thermal Power station has reached an advanced stage of planning and contract are expected to be awarded by December 2009 – January 2010.
- Works are also under progress for establishment of 1500 MW (3 x 500 MW) thermal power project under joint venture with National Thermal Power Corporation, at Vallur, in Thiruvallur District.
- A MoU has been signed between TNEB and BHEL on 26.10.2007 in the presence of Hon'ble Chief Minister of Tamil Nadu to form a joint venture for establishing a 1600 MW (2 x 800 MW) coal based thermal power plant at Udangudi in Tuticorin District. A Joint Venture Agreement has been signed between TNEB and BHEL on 26.11.2008 in the presence of the Hon'ble Chief Minister. Foundation stone has also been laid on 22.02.2009 at Udangudi for 2x800 MW BHEL – TNEB Joint Venture Project – "Udangudi Power Corporation Ltd".
- Project activities for establishment of a 1000 MW (2x500MW) Thermal Power Plant at Tuticorin under a Joint Venture with Neyveli Lignite Corporation have commenced. Foundation stone for 2x500 MW Neyveli Lignite Corporation – Tamil Nadu Electricity Board Joint Venture Project "NLC Tamilnadu Power Ltd" was laid on 28.02.2009 at Tuticorin.
- A 2x600 MW Thermal Power Project at Kattupalli of Tiruvallur district has been approved on 05.01.2009. The cost of the above project is about 6000 crores. The land acquisition for the project is under progress.
- Administrative approval has been accorded by the Board for the establishment of Co-generation Plants with capacities 7/12/15/18 MW at an estimated cost of Rs.1176.70 Crores, with a total capacity of 234 MW in 15 nos. Co-operative Sugar Mills and 2 nos. public sector Sugar Mills in Tamil Nadu by TNEB and for carrying out Sugar Mill modernization in all the 17 Sugar Mills at an estimated cost of Rs. 321.77 Crores. Thus the total cost comes around Rs.1500 crores. Notice inviting tender has been issued on 28.01.09. Techno Commercial bid was opened on 16.04.09 and evaluation of Techno Commercial bids is under process.

- Government of Tamil Nadu is also encouraging establishment of coal based thermal power plants under private sector as '**Merchant Power Plants**'. Letters of facilitation have already been issued to ten firms for establishment of power projects for a total capacity of 18,140 MW as below:-

1. M/s. Coastal Energen Pvt. Ltd. Capacity: 1000 MW at Tuticorin
2. M/s. Ind-Bharath Power (Madras) Pvt. Ltd. Capacity: 1320 MW
3. M/s. PEL Power Pvt. Ltd. Capacity: 1320 MW at Nagapattinam
4. M/s. NSL Power Pvt. Ltd. Capacity: 1500 MW at Nagapattinam
5. M/s. Tridem Port & Power company Pvt. Ltd. Capacity: 2000 MW at Nagapattinam
6. M/s. IL&FS Tamil Nadu Power Company Ltd. Capacity: 4000 MW at Cuddalore
7. M/s. SRM Energy Power Pvt. Ltd. Capacity: 2000 MW at Cuddalore
8. M/s. UDI Infrastructure Pvt. Ltd. Capacity: 2000 MW at Cuddalore
9. M/s. Apollo Infrastructure Projects Finance com. Pvt. Ltd. Capacity: 2000 MW
- 10 M/s. Sri City Infrastructure Dev. Pvt. Ltd. Capacity: 1000 MW

Total **18140** MW

## **TRANSMISSION AND DISTRIBUTION IMPROVEMENTS**

Under Transmission & Distribution network, 90 new substations of various voltage categories and 1500 circuit Kms of EHT lines will be added during 2009-10. During the XI Plan period, establishment of 300 new substations and 4,000 Circuit Kms. of EHT lines are programmed.

The Transmission & Distribution losses in Tamil Nadu Electricity Board as a whole have been estimated as 18% for the year 2007-08 considering the units generated, units sold out and by computing the consumption of agricultural and hut services. The Aggregate Technical & Commercial (AT &C) losses in Tamil Nadu Electricity Board have been estimated as 19.71% for the year 2007-08, considering the units generated the units sold and the revenue realized.

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