



TNEB LIMITED

**TAMIL NADU GENERATION AND
DISTRIBUTION CORPORATION LIMITED**

**TAMIL NADU TRANSMISSION CORPORATION
LIMITED**

DATA CARD
(2019-20)

Installed capacity as on 01.04.2020
(PLANT WISE BREAK UP DETAILS)

A. Conventional Energy Sources

Thermal		
Sl.No.	Name of Power Station	Capacity in MW
1	Mettur Thermal Power Station-I (4x210 MW)	840
2	Tuticorin Thermal Power Station (5x210 MW)	1,050
3	North Chennai Thermal Power Station –I (3x210MW)	630
4	Mettur Thermal Power Station II (1x600 MW)	600
5	North Chennai Thermal Power Station –II (2x600 MW)	1200
	Total (Thermal)	4,320.00

Gas		
Sl. No.	Name of Power Station	Capacity in MW
1	Basin Bridge (4x30 MW)	120.00
2	Thirumakottai (Kovilkalappal) (1x107.88 MW)	107.88
3	Valuthur (Phase I- 95MW & Phase II-92.2MW)	187.20
4	Kuttalam (1x101 MW)	101.00
	Total (Gas)	516.08

Installed capacity as on 01.04.2020 (Contd...)
(PLANT WISE BREAK UP DETAILS)

Central Generating Stations				
Sl. No	Stations	No of Units x capacity in MW	Total Capacity (MW)	Share in MW
1	NTPC Ramagundam TPS Stage I &II	3x200 + 3x500	2100	499
2	NTPC Ramagundam TPS Stage III	1x500	500	125
3	Talcher STPP stage II	4x500	2000	487
4	Simhadri stage II	2x500	1000	211
5	NTECL-Vallur STPS units I, II & III	3x500	1500	1,066
6	Kudgi STPS- Stage I	3x800	2400	323
7	NLC TS-II Stage 1	3x210	630	190
8	NLC TS-II Stage 2	4x210	840	283
9	NLC – TPS 1 Expansion I	2x210	420	227
10	Neyveli TS 2 Expansion units I & II	2x250	500	270
11	NNTPSS	1x500	500	327
12	NTPL- Tuticorin units I & II	2x500	1000	414
13	MAPS	2x220	440	331
14	KAPS U 1 & 2	2x220	440	120
15	KAPS U 3 & 4	2x220	440	106
16	Kudankulam NPP U1	1x1000	1000	589
17	Kudankulam NPP U2	1x1000	1000	563
18	External Assistance from ER			35
	TOTAL (CGS)		16,710	6,166

Installed capacity as on 01.04.2020 (Contd...)

(PLANT WISE BREAK UP DETAILS)

Power purchases

Independent Power Plants (IPP)			
Sl. No.	Name of Power Station	Type of Fuel	Share in MW
1	Pillaiperumalnallur GTPP (1x 330.50 MW)	Natural gas/Naphtha	330.50
2	TAQA Neyveli Power Company (1x250 MW)	Lignite	250.00
3	LANCO Tanjore Power Company (1x113.20 MW)	Natural gas	113.20
4	Pioneer Power Limited (1x 52.80 MW)	Natural gas	52.80
Total (IPP)			746.50

Long Term Open Access (LTOA)			
Sl. No.	Traders / Generators	Type of Fuel	Quantum in MW
1	OPG (Intra-state)	Coal	74
2	Coastal Energen (Intra-state)	Coal	558
3	IL&FS (Intra-state)	Coal	540
4	Jindal Power Ltd.	Coal	400
5	DB Power	Coal	208
6	BALCO	Coal	200
7	KSK Mahanadhi	Coal	500
8	GMR /EMCO	Coal	150
9	Dhariwal	Coal	100
10	Athunik	Coal	100
TOTAL (LTOA)			2,830

Medium Term Open Access (MTOA)			
Sl. No.	Traders/Generators	Type of Fuel	Quantum in MW
1.	PTC (Through IL & FS)	Coal	550
Total (MTOA)			550

Installed capacity as on 01.04.2020 (Contd...)
(PLANT WISE BREAK UP DETAILS)

Captive Power Plants		
Sl.No.	Traders/Generators	Quantum in MW
	Captive Generators (Open Access Quantum)	906*
	* These Captive/Third party generators, by open access, wheel power through grid to open access customers	
	Total (CPP)	906.00
	Total (Power Purchases)	5032.50
	Total Conventional Energy Sources	16,034.58 MW

B. Renewable Energy Sources

HYDRO

Sl.No.	Name of Power Station	Capacity in MW
	Hydro – Non Irrigation	
1	Kundah PH I (3x20 MW)	60
2	Kundah PH II (5x35 MW)	175
3	Kundah PH III (3x60 MW)	180
4	Kundah PH IV (2x50 MW)	100
5	Kundah PH V (2x20 MW)	40
6	Kundah PH VI (1x30 MW)	30
7	Pykara PH (3x7) +(1x11) + (2x13.6 MW)	59.2
8	Moyar PH (3x12 MW)	36
9	Aliyar PH (1x60 MW)	60
10	Suruliyar PH (1x35 MW)	35
11	Poonachi Mini PH (2x1 MW)	2
12	Maravakandy Mini PH (1x0.75 MW)	0.75
13	Mukurthy Mini PH (2x0.35 MW)	0.70
14	Pykara Micro PH (1x2 MW)	2.0
15	PUSHEP (3x50 MW)	150
16	Kodayar PH I (1x60 MW)	60
17	Kodayar PH II (1x40 MW)	40
	Sub-Total	1,030.65
	Pumped storage	
18	Kadamparai PH (4x100 MW)	400
	Total Hydro – Non Irrigation	1,430.65

Installed capacity as on 01.04.2020 (Contd...)

(PLANT WISE BREAK UP DETAILS)

Sl.No.	Name of Power Station	Capacity in MW
	Hydro – Irrigation	
1	Sarkarpathy PH (1x30 MW)	30
2	Sholayar PH-I (1x42 MW) + (1x42 MW)	84
3	Sholayar PH-II (1x25 MW)	25
4	Mettur Dam PH (4x12.5 MW)	50
5	Mettur Tunnel PH (4x50 MW)	200
6	Bhavani Kattalai Barrage PH –I (2x15 MW)	30
7	Bhavani Kattalai Barrage PH- II (2x15 MW)	30
8	Bhavani Kattalai Barrage PH- III (2x15 MW)	30
9	Lower Mettur Barrage PH-I (2x15 MW)	30
10	Lower Mettur Barrage PH-II (2x15 MW)	30
11	Lower Mettur Barrage PH-III (2x15 MW)	30
12	Lower Mettur Barrage PH-IV (2x15 MW)	30
13	Lower Bhavani Micro Hydrel PH (4x2 MW)	8
14	Lower Bhavani RBC (2x4 MW)	8
15	Sathanur Dam PH (1x7.5 MW)	7.5
16	Periyar PH (4x42)	168
17	Papanasam PH (4x8 MW)	32
18	Servalar PH (1x20 MW)	20
19	Vaigai Small PH (2x3 MW)	6
20	Thirumurthy Mini PH (3x0.65 MW)	1.95
21	Aliyar Mini PH (2x1.25 MW)	2.5
22	Amaravathi (2x2 MW)	4
23	Perunchani (2x0.65 MW)	1.3
24	Periyar Vaigai Mini PH-I (2x2 MW)	4
25	Periyar Vaigai Mini PH-II (2x1.25 MW)	2.5
26	Periyar Vaigai Mini PH-III (2x2 MW)	4
27	Periyar Vaigai Mini PH – IV (2x1.25 MW)	10
28	Bhavani Barrage 1 PH (2x5 MW)	10
29	Bhavani Barrage 2 PH (2x5 MW)	2.5
	Total Hydro – Irrigation	891.25
	Grand Total Hydro	2,321.90

Installed capacity as on 01.04.2020 (Contd...)
(PLANT WISE BREAK UP DETAILS)

Sl.no.	Description	Capacity in MW
1	Hydro *	2321.90
2	Wind **	8,522.95
3	Solar	4,049.95
4	Biomass	265.59
5	Co-generation (Bagasse)	710.90
	Total Renewable Energy Sources including Hydro	15,871.29

* : As per the CEA memorandum dated 08.03.2019, hydro generation has been considered as renewable energy resource and has been deleted from conventional sources.

** : Excluding 689.01 MW connected to Central Transmission Utility (CTU)

Installed capacity as on 01.04.2020 - ABSTRACT

Sl.no.	Description	Capacity in MW
1	Total Conventional Energy Sources	16,034.58
2	Total Renewable Energy Sources including Hydro *	15,871.29
	Grand Total – Installed capacity in MW as on 01.04.2020	31,905.87

* : As per the CEA memorandum dated 08.03.2019, hydro generation has been considered as renewable energy resource and has been deleted from conventional sources.

Ongoing and New Projects

Sl.No	Project	Capacity (MW)	Cost (Rs in crore)
Ongoing projects			
1.	ETPS Expansion Thermal Power Project (1 x 660MW)	660	6,381
2.	Ennore SEZ Thermal Power Project (2 x 660MW)	1,320	9,800
3.	North Chennai Thermal Power Station Stage-III (1 x 800 MW)	800	6,376
4.	Uppur Thermal Power Project (2x800MW)	1,600	12,778
5.	Udangudi Thermal Power project Stage – I (2 x 660MW)	1,320	13,077
6.	Kundha Pumped storage Hydro Electric Project (4 x 125 MW)	500	1,831
7.	Kollimalai Hydro Electric Project (1X20MW)	20	339
Sub Total - Ongoing projects		6,220	50,582
New Projects			
8.	Ennore Replacement Thermal Power Project (1x660MW)	660	5,400
9.	Udangudi Expansion Project Stage-II (2x660MW)	1,320	8,745
10.	Udangudi Expansion Project Stage-III (2x660MW)	1,320	8,745
11.	Sillahalla Pumped Storage HEP (8x250 MW in 2 Stages)	2,000	7,000
12.	Kadaladi Thermal Power Project (5x800 MW)	4,000	24,000
13.	Cheyyur Ultra Mega Power Project - 4000 MW (5 x 800 MW); Total estimate: Rs. 25,970 crore	1,600 (share)	-
14.	Kadaladi Ultra Mega Solar Photo Voltaic Power Park Project (500 MW)	500	2,350
15.	Floating Solar PV Power Projects Theni, Salem and Erode districts	250	1,125
16.	2 x 730 MW Gas Turbine Combined Cycle Power Project.	1,460	5,000
Sub Total - New projects		13,110	62,365
Grand total		19,330	1,12,947

CONSUMERS AND CONSUMPTION

Consumers	Tariff	Consumers as on 31.03.20 (in lakhs)	Consumption in MU (Provisional)
HT (Including sale to traders)	I to V	0.10	32,421
LT			
Domestic	I A	221.09	28,650
Huts	I B	10.09	490
Bulk Supply	I C	0.01	9
Public Lighting & Water supply	II A	7.46	2,304
Recognised Educational Institutions & Private Educational Institutions	II B (1) & II B (2)	0.95	454
Actual places of public worship	II C	1.51	141
Cottage and Tiny Industries	III A (1)	2.25	302
Power Looms	III A(2)	1.61	1,057
Industries	III B	3.25	7,314
Agriculture	IV	21.22	13,811
Commercial	V	34.30	7,725
Temporary Supply	VI	3.71	266
Total (HT & LT)		307.54	94,944

Tariff rates ordered in TNERC -subsidized rate (Payable by the consumer) with effect from 11.8.2017

I- HIGH TENSION SUPPLY			
Tariff	Category of Consumers	Demand Charges Rs. Per kVA p.m.	Energy Charges Ps./Unit
I-A	Industries, Registered factories, Textiles, Tea estates, etc.,	350	635
I-B	Railway Traction	300	635
II-A	Govt. and Govt. aided Educational Institutions, Govt. Hospitals, Public Lighting & Water supply, Places of Worship etc.,	350	635
II - B	Private Educational Institutions & hostels	350	635
III	Commercial and other categories, Private Communication providers, Cinema Studios and Cinema Theatres	350	800
IV	Lift Irrigation for Agriculture under Co-op Societies	Nil	0
V	HT Temporary Supply for construction and other temporary purposes	350	1100

II- LOW TENSION SUPPLY			
	(Unit slabs bi-monthly)	Energy Charges Ps./ Unit	Fixed Charges for 2 months Rs.
I-A	Domestic, Handloom, Nutrition Centres etc.		
	Consumption upto 100 units bi-monthly		
	0-100 units	0	0
	Consumption from 101 units to 200 units bi-monthly		
	0-100 units	0	20/service
	101-200 units	150	
	Consumption from 201 units to 500 units bi-monthly		
	0-100 units	0	30/service
	101-200 units	200	
	201 to 500 Units	300	
	Consumption from 501 units and above bi-monthly		
	0-100 units	0	50/service
	101-200 units	350	
	201 to 500 Units	460	
501 units and above	660		
For Hand Loom in residences, 0-200 units bi-monthly is free (Above 200 units bi-monthly, the corresponding slab in the domestic tariff is applicable)			
I-B	Huts in village panchayats, TAHDCO: Metered	0	0
	Till meters are fixed:-	0	0
I-C	L.T. Bulk supply, Railway Colonies, Defence colonies etc.	460	120/service
II-A	Public lighting, water supply, sewer Village Panchayats/Town Panchayat Municipality/Corporations.	635	120/kW
II- B(1)	Govt and Aided Educational Institutions, Govt. Hospitals etc.	575	120/kW
II B(2)	Private Educational Institutions & hostels	750	120/kW
II-C	Places of Public worship, Mutts		
	0-120 units	285	120/kW
	Above 120 Units	575	
III-A (1)	Cottage, Tiny Industries, (Upto 10HP)		
	Upto 500 Units	400	40/kW
	Above 500 Units	460	
III- A(2)	Power Looms (contracted load does not exceed 12 KW) and upto 10 HP) incl. Winding etc.		
	0-500 units	0	0
	501-750 units	0	0
	751-1000 units	230	70/kW
	1001-1500 units	345	
	Above 1500 Units	460	

III-B	Industries	635	70/kW
IV	Agriculture & Govt. Seed Farms and SFS: Metered	0	0
	Till meters are fixed:---	0	0
V	Consumers not categorized under LT – IA, IB, IC, IIA, IIB(1), IIB(2), IIC, IIIA(1), IIIA(2), IIIB, IV & VI		
	consumption upto 100 units bi-monthly		
	0-100 units	500	140/kW
	consumption above 100 units bi-monthly		
	For all units	805	140/kW
VI	Temporary Supply		
	Temporary activities such as construction of commercial complexes/residential building/ complexes. Additional construction of beyond 2000 square feet in the premises of an existing consumer.	1200	Rs.690/kW
	Lavish illuminations		

STAFF STRENGTH AS ON 31.03.2020

Class	Cadre	Sanctioned	Utilised	Vacant
I	Provincial	1,412	1,282	130
II	Provincial	13,068	10,358	2,710
III	Provincial	29,715	18,884	10,831
IV	Provincial	1,472	1,078	394
III & IV	RWE	89,803	52,675	37,128
Total		1,35,470	84,277	51,193

SALIENT FEATURES AT A GLANCE

Details	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20
Installed capacity (MW) (Conventional Energy)	10,236.94	10,364.54	10,515.34	11,884.44	13,231.44	17,976.48	18,732.78	18,747.28	18,299.66	# 16,034.58
Installed capacity (MW) (Renewable Energy)	6,646.07	7,792.03	7,999.03	8,219.67	8,470.16	9,629.52	10,465.14	11,112.71	12,179.65	15,871.29
Total Installed capacity (MW)	16,883.01	18,156.57	18,514.37	20,104.11	21,701.60	27,606.00	29,212.39	29,859.99	30,479.31	31,905.87
Generation & Purchase(MU)	76,071	76,535	74,872	89,793	94,128	99,691	1,05,728	1,06,827	1,13,790	1,14,229
Energy Sales (MU)	58,858	61,387	58,810	70,976	76,828	79,464	83,020	85,890	91,918	94,944
Substations (Nos.)	1,343	1,320	1,341	1,392	1442	1,499	1,547	1,592	1,682	1,784
EHT Lines (Lakh Ckt.Kms.)	1.77	1.80	1.84	1.89	1.95	2.00	2.04	2.09	0.34	0.35
HT lines (Lakh.Kms.)									1.77	1.81
LT lines (Lakh.Kms.)	5.56	5.67	5.78	5.88	5.98	6.10	6.19	6.28	6.28	6.35
Distn.Transformers (Nos.)	2,03,794	2,12,919	2,21,288	2,31,224	2,46,748	2,64,029	2,82,028	2,93,301	3,09,468	3,27,163
Per capita consumption (Units)	1040	1065	1011	1196	1228	1,280	1,340	1,389	1,467	1515
ELECTRIFICATION										
Towns, Villages & Hamlets (Nos.)	63,956	63,956	79,263*	79,248*	79,245*	79,245*	79,279*	79,283*	79,317*	79,360*
Pumpsets (Lakhs)	19.85	20.16	20.33	20.47	20.46	20.60	20.73	21.03	21.17	21.22
Consumers (Lakhs)	223.44	231.80	243.51	252.32	264.67	270.26	279.27	288.09	295.98	307.54

* Habitations electrified.

As per the CEA memorandum dated 08.03.2019, hydro generation has been considered as renewable energy resource and has been deleted from conventional sources.

ACHIEVEMENTS (2019-20)

Maximum peak demand reached is 16,151MW on 03.04.2019 and the maximum energy consumption is 369.940 MU on 12.04.2019.
