

TAMILNADU POWER DISTRIBUTION CORPORATION LIMITED
ABSTRACT

Electricity – Kanchipuram Region – Chennai / South II EDC - Establishment of Rajiv Gandhi Salai 33/11 kV indoor SS at Kottivakkam with 2x16 MVA power transformers – Administrative approval - Accorded.

TECHNICAL BRANCH

(Per). MD TNPDC Proceedings No: 88

Dated: 16.10.2026

Parabhava Varudam

Puratasi : 29

Thiruvalluvar Aandu 2057

READ: Chairman cum Managing Director's approval dated: 15.10.2026.

PROCEEDINGS:

1. The Tamilnadu Power Distribution Corporation Ltd. hereby approves the proposal for establishment of Rajiv Gandhi Salai 33/11 kV indoor SS at Kottivakkam with 2x16 MVA power transformers in Chennai/South II EDC of Kanchipuram Region at an estimated cost of Rs.2177.62 lakhs Gross and Nett subject to commissioning of additional 50 MVA, 110/33 kV Power Transformer at Tharamani 400/230-110/33 kV SS. The detailed estimates and report are annexed to these proceedings.
2. The expenditure is chargeable to TNPDC - Funds - Capital Expenditure - Chennai / South II EDC – A/c code no. 1020300.
3. By virtue of the provisions contained in sub-section (2) (a) of section 185 of the Electricity Act, 2003, the TNPDC being the Licensee and successor entity of Tamil Nadu Electricity Board will exercise the powers of the Telegraph Authority under the provisions of section 164 of the Electricity Act, 2003, which have already been conferred upon the Board under section 51 of the Indian Electricity Act, 1910.
4. The work is to be taken up after ensuring budget provision.

// BY ORDER OF THE CMD //

N.SIVAGAMI
CHIEF ENGINEER / PLANNING & RC (FAC)

Encl: Report and detailed estimate.

(Per.) MD TNPDC Proceedings No: 88 dt.16.10.2026

To

The Chief Engineer/ Distribution / Kanchipuram Region.

Copy to:

The Director/Distribution/ TNPDC / Chennai-2

The Director/Finance/ TNPDC / Chennai - 2

The Chief Engineer/ Material Management / Chennai -2

The Superintending Engineer/ Chennai / South II EDC

The Superintending Engineer / RE & I(D) / Chennai -2

The Superintending Engineer/ CDC / Chennai -2

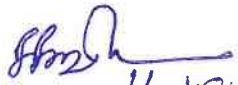
The Company Secretary/ TNPDC/ Chennai -2

The Resident Audit Officer (AGO'S Unit) / Chennai -2

B.P. Section (Administrative Branch)

Stock to file

// FORWARDED BY ORDER //


16.10.2026

EXECUTIVE ENGINEER/MASTER PLAN I

(Per.) MD TNPDC Proceedings No: 88 dt.16.10.2026

REPORT TO ACCOMPANY THE ESTIMATE

This proposal envisages proposal for establishment of Rajiv Gandhi Salai 33/11 kV indoor SS at Kottivakkam with 2x16 MVA power transformers in Chennai EDC/ South II of Kanchipuram Region at an estimated cost of Rs.2177.62 lakhs Gross & Nett. subject to commissioning of additional 50 MVA, 110/33 kV Power Transformer at Tharamani 400/230-110/33 kV SS.

Need:

M/s. Perungudi Developers Pvt Ltd., has developed a housing project with 636 Nos. dwelling units in Kottivakkam village with a load of 6.09 MVA. It is to be stated that 636 Nos. services with the connected load of 6.09 MVA have been temporarily effected through 11 kV OMR feeder of Perungudi 110/33/11 kV SS. However, on commissioning of new 11 kV Appasamy feeder at Tidel park 110/33-11 kV SS for which works are under progress on DCW basis, the entire load of the above developer will be fed from the above feeder.

In this regard, it is to be stated that as per TNERC notification No. TNERC/ DC/08-12 dt:24.08.2009, space/land has to be allotted for the establishment of substation in case of group housing/commercial complex where the total demand exceeds 5 MVA. As the demand of M/s. Perungudi Developers Pvt Ltd., exceeds 5 MVA, they have allotted 425 Sq.mtr of vacant land at free of cost in SF No.281/2B1A1, 282/4,5,6,7, 283/2A1,2B,2C,2D, Kottivakkam village, Rajiv Gandhi Salai (OMR) for the establishment of new 33/11 kV SS.

At present, ECR Road, Santhosh Nagar, Tharamani and its surrounding areas are being fed from Tharamani 33/11 kV SS and Perungudi 110/33/11 kV SS. The details of the substations and the feeders feeding the above area are furnished below:

Tharamani 33/11 kV SS is in service with 3x16 MVA, 33/11 kV power transformers. The sustained peak reached is 42 MVA and is loaded to 87.5% of its installed capacity. Load growth in this area is 4.85% per annum. The details of the feeders feeding the above area are as below:

Sl No.	Name of the 11 kV feeder	CL in MVA	Length in kms	Peak in MVA	Voltage regn. %	Line loss in LU
1	Rajiv Nagar	4.7	1.89	4.1	0.79	0.622
2	Concord	9.574	1.87	7.5	0.56	1.588
3	Kamarajar Nagar	7.95	4.98	6.5	1.97	5.468

Perungudi 110/33/11 kV SS is in service with 3x16 MVA, 33/11 kV power transformers. The sustained peak reached on the existing 33/11 kV power transformers is 40 MVA and is loaded to 83.3% of its installed capacity. Load growth in this area is 4.61% per annum. The details of the feeders feeding the above area are as below:

Sl. No.	Name of the 11 kV feeder	CL in MVA	Length in kms	Peak in MVA	Voltage regn. %	Line loss in LU
1	Nehru Nagar	7.759	2.36	6.5	0.47	0.927
2	Industrial	14.31	6.34	10.5	2.46	8.629
3	Kandanchavadi	8.05	3.18	7.5	0.88	2.153

It may be seen that all the 11 kV feeders feeding the area from Perungudi 110 kV SS & Tharamani 33 kV SS are loaded to its full capacity. Bifurcation of the feeders are not feasible, as extension of feeder bays at Tharamani 33 kV SS & Perungudi 110 kV SS are not feasible due to space constraint.

Power requirement in and around ECR Road, Santhosh Nagar, Tharamani and its surrounding area are drastically increasing every year due to development of educational institutions, industries, commercial buildings, housing flats etc. and the same could not be accommodated in the existing Perungudi 110 kV SS and Tharamani 33 kV SS. Enhancement of existing Power Transformer capacity at Tharamanai 33 kV SS is not feasible due to space constraint.

The nearby substations to Tharamani 33/11 kV SS are Tidel Park 110 kV SS and Perungudi 110 kV SS which are at a distance of 2.5 kms. & 3 kms. respectively. Load transfer from Tharamani 33 kV SS to the above nearby SS are not feasible, as the existing Power Transformers at the above nearby SS are already loaded more than 70% of its capacity.

Likewise, transfer of load from Perungudi 110 kV SS to the nearby Tharamani 33 kV SS and ETL 110/33-11 kV SS are also not feasible, as the existing Power Transformers at the above nearby SS are already loaded more than 70% of its capacity.

Hence, in order to give relief to the existing substations, to cater the loads of M/s. Perungudi Developers Pvt Ltd. and to accommodate the future load growth in this area, establishment of Rajiv Gandhi Salai 33/11 KV SS is essentially required.

Reduction in line loss:

On establishment of Rajiv Gandhi Salai 33/11 kV SS, the feeder regulation details and load to be retained in the existing feeders post establishment of the proposed SS are detailed below:

S No	Name of SS	Name of 11 KV feeder	CL in MVA	Length in kms.	Voltage Regn %	Line Loss in LU
1	Tharamani 33/11 kV SS	Rajiv Nagar	3.7	1.74	0.57	0.361
		Concord	5.574	1.17	0.23	0.402
		Kamarajar Nagar	6.15	3.53	1.16	2.600
2	Perungudi 110/33/11 kV SS	Nehru Nagar	3.149	0.73	0.07	0.058
		Industrial	9.035	1.86	0.75	2.147
		Kandanchavadi	4.7	1.99	0.36	0.571

On establishment of the proposed Rajiv Gandhi Salai 33/11 kV SS, the savings in line loss will be of 11.636 LU per annum and yield revenue of Rs.121.13 Lakhs per annum.

The Road cut restoration charges as per field rates has been adopted for 33 kV & 11 kV Cable laying works. The executing wing will be requested to adopt the road cut restoration charges as per the road type applicable at the time of execution.

Details of power transformer capacity proposed:

Connected load to a tune of 26.125 MVA (6.8 MVA from Tharamai 33 kV SS , 13.235 MVA from Perungudi 110kV SS & 6.09 MVA of M/s.Perungudi Developers Pvt Ltd) has been proposed to be transferred to the proposed Rajiv Gandhi Salai 33/11 kV SS. The anticipated peak to be incident on the proposed Rajiv Gandhi Salai 33/11 kV SS will be of 20.39 MVA. Hence, it is proposed to install 2x16 MVA, 33/11 kV power transformers at the proposed 33/11 kV SS.

Adequacy of Transmission System

Details of Source SS:

Sl.	Description	Main Source	Alternate Source
a)	Name of the source SS	Taramani 400/230-110/33 kV SS	Tidel Park 110/33-11 kV SS
b)	110/33 kV power transformer	1x50 MVA (110/33 kV) 2 nd 50 MVA to be allotted	2x50 MVA (110/33 kV)
c)	Sustained Peak reached	24.38 MVA	68 MVA
d)	Now Proposed addition in MVA	32 MVA	32 MVA
e)	Total anticipated peak in MVA	24.34+32 = 56.38 MVA	68+32= 100 MVA
f)	Pr tr capacity is adequate	Adequate. Subject to the condition on commissioning 2 nd 50 MVA Power transformer as per original sanction.	Adequate.

Details of Source feeder:

Sl.	Description	Main Source	Alternate Source
a)	Name of the feeder	33 kV Taramani - Rajiv Gandhi #	33 kV Tidel park – Rajiv Gandhi # *
b)	Size/capacity of conductor	33 kV, 1x630 Sq.mm. UG cable/32.29 MVA	33 kV, 1x630 Sq.mm UG cable/ 32.29 MVA
c)	Present loading in MVA	New feeder	New feeder
d)	Proposed addition in MVA	32 MVA	32 MVA
e)	Cable capacity is adequate	Adequate	Adequate

Details of works involved:

- Establishment of new 33/11 kV indoor SS with 2x16 MVA power transformers and allied equipments.
- Laying of 3 runs of 33 kV, 1x630 Sq.mm XLPE cable from Taramani 400/230-110/33 kV GIS SS to the proposed Rajiv Gandhi Salai 33/11 KV SS to a route length of 2.0 kms.

- Laying of 3 runs of 33 kV, 1x630 Sq.mm XLPE cable from Tidel Park 110/33-11 kV SS to the proposed Rajiv Gandhi Salai 33/11 kV SS to a route length of 2.5 kms.
- Laying of 11 kV 3x300 sq.mm. cable of 7.2 kms. for providing 11 kV link lines.
- Spare 33 kV GIS bay available at Taramani 400 kV GIS SS is proposed to be utilized for providing 33 kV source to proposed Rajiv Gandhi Salai 33/11 kV SS.
- Provision of 33 kV feeder bay at the existing Tidel Park 110 kV SS is under TANTRANSCO scope, the Chief Engineer/Transmission will be requested to make necessary arrangement for provision of 33 kV bay extension at Tidel Park 110 kV SS, so as to feed the proposed Rajiv Gandhi Salai 33 kV SS.

Land availability:

M/s. Perungudi Developers Pvt Ltd., (Appasamy Real Estates) have allotted land to an extent of 425 Sq.mts, Survey no. 281/2B1A1, 282/4,5,6,7, 283/2A1,2B,2C,2D, Kottivakkam village, Rajiv Gandhi Salai (OMR), Chennai District and handed over as gift deed registered in favour of TNPDCCL for establishment of the proposed 33/11 kV SS at free of cost.

The Superintending Engineer/CDC/Chennai/TNPDCCL has certified that the land is suitable for establishment of 33/11 kV Indoor SS with certain conditions and the CE/D/Kanchipuram Region is requested to carry out the same before commencement of Substation erection works.


16.10.2026

Executive Engineer/Master Plan 1

**ABSTRACT ESTIMATE FOR ESTABLISHMENT OF RAJIV GANDHI SALAI 33/11 KV
INDOOR SS AT KOTTIVAKKAM WITH 2X16 MVA POWER TRANSFORMERS IN
CHENNAI EDC/SOUTH II OF KANCHIPURAM REGION**

ABSTRACT

SL NO	DESCRIPTION	Amount in Lakhs
1	Establishment of Rajiv Gandhi Salai 33/11 kv indoor SS with 2x16 MVA power transformers	985.40
2	Erection of 33 kv & 11 kv link lines	1192.22
	Total	2177.62


16.10.2026
EXECUTIVE ENGINEER/MASTER PLAN I

**ERECTION OF 33 KV FEEDER UG CABLE & 11 KV LINK LINES TO
RAJIV GANDHI SALAI 33/11 KV INDOOR SS**

Sl. No	Description	QTY		Rate in Lakhs	PER	Amount in Lakhs
1	Laying of 33 kV, 1x630 sq.mm. UG cable from Taramani 400/230-110/33 kV GIS SS to proposed Rajiv Gandhi Salai 33/11 kV SS	2	kms	179.97	km	359.94
2	Laying of 33 kV, 1x630 sq.mm. UG cable from Tidel Park 110/33-11 kV SS to proposed Rajiv Gandhi Salai 33/11 kV SS	2.5	kms	179.97	km	449.93
3	Laying of 11 kV, 3x300 Sq.mm. UG cable for 11 kV link lines	7.2	kms	53.11	km	382.36
	Total (Gross and Nett)					1192.22

**ESTIMATE FOR ESTABLISHMENT OF RAJIV GANDHI SALAI 33/11 KV INDOOR SS AT KOTTIVAKKAM
WITH 2X16 MVA POWER TRANSFORMERS IN CHENNAI EDC/SOUTH II OF KANCHIPURAM REGION**

Sl. No	DESCRIPTION	QTY	RATE	PER	AMOUNT in Lakh
I	CIVIL WORKS				
1	Land cost (gift deed)				0.000
2	Control Room building with pile foundation, RCC Cable duct, Land levelling, Water system including Sump and Septic tank, Lead road, Compound wall, Transformer plinth, RCC fire wall etc. including GST *(Standard civil rate for 33/11 kV indoor SS communicated by SE/Civil/Distribution vide U.O.No.SE/C/Dist./F.33 kV Indoor SS/D.45/23 Dt.02.03.2023)				250.00
3	Total Civil works				250.00
II	Electrical Works				
1	33 KV VCB Indoor (Transformer HV)	2 Nos.	13.558	E	27.12
2	33 KV VCB Indoor feeder	2 Nos.	11.904	E	23.81
3	33 kV VCB Indoor (Bus coupler)	1 No.	14.908	E	14.91
4	33 KV Bus Adapter	1 No.	1.954	E	1.95
5	11 KV VCB Indoor (Transformer LV)	2 Nos.	6.863	E	13.73
6	11 KV VCB Indoor feeder breaker	6 Nos.	5.310	E	31.86
7	11 KV VCB Indoor (Bus coupler)	1 No.	7.091	E	7.09
8	11 KV Bus Adapter	1 No.	1.659	E	1.66
9	Control cable			LS	10.00
10	100 KVA, 11 kV/433 V Distribution Transformer	1 Set	4.737	Set	4.74
11	110 V Battery set (1 no.) with 2 Chargers.			Set	8.707
12	AC Panel	1 No.	3.874	E	3.87
13	DC Panel	1 No.	2.868	E	2.87
14	Annunciator Panel	1 No.	1.145	E	1.15
15	Earthing, Painting & Yard lighting	1 Set	10.00	Set	10.00
16	Fire fighting equipment	1 Set		LS	3.00
17	VHF Communication	1 Set		LS	2.40
18	P & T phone	1 No.		E	0.10
19	SCADA			LS	20.00
20	Scientific instruments			LS	5.00
21	T & P materials and Furniture			LS	4.00
22	33 kV, 1x630 sqmm XLPE cable with accessories			LS	10.00
23	11 kV, 1x630 sqmm XLPE cable with accessories			LS	10.00
24	Cost of materials				217.95

**ESTIMATE FOR ESTABLISHMENT OF RAJIV GANDHI SALAI 33/11 KV INDOOR SS AT KOTTIVAKKAM
WITH 2X16 MVA POWER TRANSFORMERS IN CHENNAI EDC/SOUTH II OF KANCHIPURAM REGION**

Sl. No	DESCRIPTION	QTY	RATE	PER	AMOUNT in Lakh
25	Contingencies @ 1%				2.18
26	Sub total				220.13
27	Labour and Transport charges @ 15%				33.02
28	GST on labour & transport @ 18%				5.94
29	Sub total				259.10
30	16 MVA, 33/11 KV power transformer with OLTC	2 Nos.	169.900	E	339.80
31	Labour & Transport for trs including GST	2 Nos.	8.00	E	16.00
32	Earthing	2 Nos.	0.55	E	1.10
33	Sub total				616.00
34	Establishment & supervision charges @ 15 %				92.40
35	11 kV capacitor bank 2.4 MVAR	1 Set	27.008	Set	27.01
36	Total for Electrical works				735.40
37	Gross & Nett				985.40

**Estimate for laying of 3 runs of 33 KV, 1x630 sq.mm XLPE (SC) cable for a Route
Length of 1 Kms. by open cut method**

SNO	DESCRIPTION	QTY	RATE	PER	AMOUNT
1	33 KV, 1X630 Sq.mm XLPE UG Cable	3 Kms	15.2356	km	45.71
2	PVC pipe 150 mm	540 Nos.	0.0105	Each	5.69
3	33 kv RCC Cover slab	1680 Nos.	0.0032	Each	5.29
4	33 KV, 1X630 Sq.mm HS Straight joint kits	3 Nos.	0.1038	Each	0.31
5	33 KV, 1X630 Sq.mm HS ID termination kits	3 Nos.	0.0564	Each	0.17
6	Cost of Materials				57.17
7	Contingencies 1%				0.57
8	Total cost of Materials				57.74
9	Labour and Transport	1 Km	10.00	Km	10.00
10	GST on labour & transport@18%				1.80
11	Sub total-1				69.54
12	Estt & supervision charges @ 15 %				10.43
13	Sub total-2				79.97
14	Road - cut charges **	1 Km	100.00	Km	100.00
15	Total (RATE FOR 1 Km)				179.97

Note ***: 1) The road cut charges adopted in the above sample estimate is based on the Chennai EDC rates for estimate purpose only.

2) Hence the rates may be adopted as prevailing in the concerned area and considering the type of the road.

Estimate for laying of 3 runs of 11 KV, 3x300 sq.mm XLPE (SC) cable for a Route Length of 1 km using open cut method

SNO	DESCRIPTION	QTY	RATE	PER	AMOUNT
1	11 KV, 3X300 Sq.mm XLPE UG Cable	1 Kms	19.29000	km	19.29
2	11 KV, 3X300 Sq.mm HS Straight joint kits	5 Nos.	0.05997	Each	0.30
3	11 KV V trough	1680 Nos.	0.00245	Each	4.12
4	PVC pipe 160 mm	180 Nos	0.01054	Each	1.90
5	11 KV, 3X300 Sq.mm HS OD termination kits	1 Nos.	0.02502	Each	0.025
6	11 KV, 3X300 Sq.mm HS ID termination kits	1 Nos.	0.02604	Each	0.026
	Cost of Materials				25.66
	Contingencies 1%				0.26
	sub total				25.92
	Labour and Transport charges	1 Km	10	Km	10.000
	sub total				35.92
	Estt & supervision charges @ 15 %				5.39
	sub total				41.31
	GST 18 % on Labour, Transport				1.800
	sub total				43.105
	Road - cut charges-corporation	1 Km	10.00	Km	10.00
	Total				53.11