

TAMILNADU POWER DISTRIBUTION CORPORATION LIMITED
ABSTRACT

Electricity – Thanjavur Region – Thiruvarur EDC – Enhancement of existing power transformer capacity from 1x8 MVA to 2x8 MVA at Sitheri 33/11 kV SS – Administrative approval - Accorded.

TECHNICAL BRANCH

(Per). MD TNPDC Proceedings No: 80

Dated: 21.09.2026

Parabhava Varudam

Purattasi : 4

Thiruvalluvar Aandu 2057

READ: Chairman cum Managing Director's approval dated: 19.09.2026.

PROCEEDINGS:

1. The Tamilnadu Power Distribution Corporation Ltd. hereby approves the proposal for enhancement of existing power transformer capacity from 1x8 MVA to 2x8 MVA at Sitheri 33/11 kV SS in Thiruvarur EDC of Thanjavur Region at an estimated cost of Rs.169.14 lakhs Gross and Nett. The detailed estimates and report are annexed to these proceedings.
2. The expenditure is chargeable to TNPDC - Funds - Capital Expenditure - Thiruvarur EDC – A/c code no. 1020400.
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 (i/c)

Encl: Report and detailed estimate.

(Per.) MD TNPDC Proceedings No: 80 dt.21.09.2026

To
The Chief Engineer/ Distribution / Thanjavur 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/ Thiruvarur EDC

The Superintending Engineer / RE & I(D) / 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//


21.09.2026

EXECUTIVE ENGINEER/MASTER PLAN I

(Per.) MD TNPDC Proceedings No: 80 dt.21.09.2026

REPORT TO ACCOMPANY THE ESTIMATE

This proposal envisages proposal for enhancement of existing power transformer capacity from 1x8 MVA to 2x8 MVA at Sitheri 33/11 kV SS in Thiruvavur EDC of Thanjavur Region at an estimated cost of Rs.169.14 lakhs Gross and Nett.

Need:

At present, Sitheri 33/11 kV SS is having 1x8 MVA Power Transformer. The peak reached on this SS is 7.82 MVA which is loaded to 97.75% its capacity. Load growth at this SS is about 4.06%.

The details of the nearby substations to the Sitheri 33 kV SS are as below:

Sl. No.	Name of the SS	Pr.Tr.cap in MVA (11 kV level)	Peak in MVA	% of loading	Distance
1	Mannargudi 110/33-11 kV SS	2x16	29.72	92.88%	14 kms.
2.	Kottur 33/11 kV SS	2x8	5.79	36.19%	22.5 kms.

As the above said nearby Mannargudi 110 kV SS & Kottur 33 kV SS are situated far away, load transfer from Sitheri 33 kV SS to the above nearby SS is not feasible. If done so, it will lead to low voltage problem.

It is observed that the voltage regulation of Moonamsethi feeder is beyond the permissible limit of 8%. In this regard, the CE/D/Thanjavur Region has reported that in order to the voltage regulation of the above feeder, it has been proposed to bifurcate the above feeder loads to form 1 No. additional feeder. Hence, provision towards 1 No. 11 kV feeder bays has been made in this proposal. However, the CE/D/Thanjavur Region is instructed to evolve separate improvement proposal for bifurcation of the feeder and obtain administrative approval from the Competent authority.

Hence, in order (i) to avoid overloading of the existing power transformer, (ii) to satisfy N-1 criteria as per CEA Regulation and (ii) to meet the future load growth, it becomes necessary to enhance the existing power transformer capacity from 1x8 MVA to 2x8 MVA at Sitheri 33/11 kV SS.

Adequacy of transmission system:**Details of the Source SS:**

a.	Name of the substation	Mannargudi 110/33 kV SS
b.	110/33 kV power transformer capacity	2x25 MVA
c.	Peak reached in MVA	37 MVA
d.	Proposed addition in MVA	Now proposed enh: 8
e.	Anticipated peak in MVA	45 MVA
f.	Whether pr. tr. capacity is adequate	Adequate

Details of the source feeder:

a.	Name of the feeder	33 kV Mannargudi -- Sitheri #
b.	Size/capacity of the conductor	Dog -- 17.78 MVA
c.	Present loading in MVA	7.82 MVA
d.	Proposed addition in MVA	Now proposed enh: 8 MVA
e.	Anticipated load in MVA	15.82 MVA
f.	Whether the conductor is adequate	Adequate

Details of work involved:

- Erection of 1 No. 8 MVA, 33/11 kV Power Transformer along with its associated equipments at Sitheri 33/11 kV SS.


21.09.2026

Executive Engineer/Master Plan I

**DETAILED ESTIMATE FOR ENHANCEMENT OF EXISTING POWER TRANSFORMER
CAPACITY FROM 1x8 MVA TO 2x8 MVA AT SITHERI 33/11 KV SS IN TIRUVARUR EDC**

S.NO	DESCRIPTION	QTY	RATE	RS. in Lakhs	
				PER	AMOUNT
1	33 kV AB switch	1 No	0.466	E	0.466
2	33 kV LAS	3 Nos	0.038	E	0.114
3	11 kV VCB (1 LV Breaker + 1 feeder)	2 Nos.	1.626	E	3.252
4	11 kV AB switch	4 Nos	0.236	E	0.944
5	11 kV CT	6 Nos	0.250	E	1.500
6	11 kV LAS (Station type)	3 Nos	0.018	E	0.054
7	11 kV LAS (Distn. type)	3 Nos	0.008	E	0.024
8	Plinth for breaker	2 Nos.	2.500	E	5.000
9	Control and Relay panel			LS	7.500
10	Control cable			LS	3.000
11	Fire fighting equipment			LS	0.500
12	Earthing, Painting and Yard lighting			LS	1.000
13	Sub total				23.354
14	Contingencies 1%				0.234
15	Cost of Material				23.588
16	Labour and Transport charges @ 15%				3.538
17	GST on labour & transport @ 18%				0.637
18	Total for material and labour				27.763
19	8 MVA, 33/11 kV Pr.Tr. with OLTC	1 No	88.374	E	88.374
20	Plinth, labour & Transport inclusive of GST	1 No	13.00	E	13.000
21	Earthing	1 No	0.55	E	0.550
22	Estt and Supervision charges 15%				19.453
23	Sub total				149.140
24	33 kV and 11 kV structure modifications etc.,			LS	10.000
25	Civil works such as Fire protection wall, extension of cable duct etc.,			LS	10.000
26	Total Gross & Nett				169.14


21.09.2026
Exe. Engineer/Master Plan I

