TAMILNADU POWER DISTRIBUTION CORPORATION LIMITED
ABSTRACT

Electricity – Kanchipuram Region – Kanchipuram EDC – Replacement of failed 8 MVA power transformer with a healthy unit of same capacity at Magaral 33/11 kV SS - Administrative approval - Accorded.

TECHNICAL BRANCH

(Per). MD TNPDCL Proceedings No.71

Dated: 29.08.2026.
Sri Parabhava Varudum,
Aavani: 12,
Thiruvalluvar Aandu 2057.

READ: Chairman cum Managing Director's approval dated 27.08.2026.

PROCEEDINGS:

1. The Tamilnadu Power Distribution Corporation Limited hereby approves the proposal for replacement of failed 8 MVA power transformer with a healthy unit of same capacity at Magaral 33/11 kV SS in Kanchipuram EDC in Kanchipuram Region at an estimated cost of Rs.113.85 lakhs Gross and Rs.82.44 Lakhs Nett. The detailed estimate and report are annexed to these proceedings.

2. The expenditure is chargeable to TNPDCL - Funds - Capital Expenditure – Kanchipuram 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 TNPDCL being the Licensee and successor entity of TamilNadu Electricity Board will exercise the powers of the Telegraph Authority under the provisions of section 164 of the Electricity Act, 2003, which have alreadybeen conferred upon the Board under section 51 of the Indian Electricity Act, 1910.

4. The works has to be taken up in order to normalize the supply condition.

// BY ORDER OF THE CMD//

J.PUSHPALATHA
CHIEF ENGINEER/PLANNING & RC

Encl: Report and detailed estimate.

To

The Chief Engineer/Distribution/Kanchipuram Region.

(Per).MD.TNPDCL Proceedings No.71, dated:21.08.2026.

Copy to:

The Director/Distribution/TNPDCL
The Director/Finance/ TNPDCL
The Chief Engineer/ Material Management
The Superintending Engineer/Kanchipuram EDC
The Superintending Engineer/RE&ID/Chennai
The Company Secretary/TNPDCL, Chennai.
The Resident Audit Officer (AGO'S Unit) / Chennai.
B.P.Section (Administrative Branch)
Stock file.

//FORWARDED BY ORDER//

29.08.2026

EXECUTIVE ENGINEER/MASTER PLAN I

(Per).MD.TNPDCL Proceedings No.71, dated: 29.08.2026.

REPORT TO ACCOMPANY THE ESTIMATE

This proposal envisages replacement of failed 8 MVA power transformer with a healthy unit of same capacity at Magaral 33/11 kV SS in Kanchipuram EDC in Kanchipuram Region at an estimated cost of Rs.113.85 lakhs Gross and Rs.82.44 Lakhs Nett.

Need:

Magaral 33/11 kV SS was in service with 2x8 MVA power transformers. The existing 8 MVA Venkateswara (VEI) make power transformer bearing Sl.No.RJM/29/ 16094 has been commissioned at Magaral 33/11 kV SS on 06.06.2017.

On 05.07.2026 at 14.25 hrs, the above 8 MVA Atlanta make power transformer got tripped due to actuation of Bucholz alarm & trip relay with OTI actuation. Hence, the Power Transformer was isolated from service. Back feeding was partially made from the nearby Kaliyampoondi 110 kV SS, Perunagar 33/11 kV SS & Vellakulam 33/11 kV SS and the balance loads were managed with the existing other available 8 MVA power transformer. The year of manufacture of the above power transformer is 2003 and has served 23 years.

The MRT wing had conducted the tests and the test results were found normal. The DGA test results on oil samples revealed that there was significant increase in fault gas levels. Discharge of high energy/arcing inside the power transformer was suspected and internal examination of the power transformer was suggested to be carried out.

Hence, internal examination was carried out by TRB wing on 07.07.2026 and no visible faults were identified. It has been recommended to conduct Sweep Frequency Response Analysis (SRFA) test to ascertain the structural healthiness of the power transformer windings.

The R&D wing had conducted the SFRA tests on 08.07.2026 and it was found that capacitance and Tan Delta value were high for all the three tests (i.e. HV-E, LV-E & HV-LV) which indicated contamination/moisture/insulation burning inside the windings.

Hence, based on the DGA test results and capacitance & Tan Delta value, it was suspected that the power transformer was defective. As the same could not be attended at site, the power transformer was declared as failed.

Since, the loads could not be managed with the back feeding from the nearby substations & with the available other 8 MVA power transformer, it becomes very much essential to replace the above failed 8 MVA power transformer by a healthy unit. Hence, this estimate has been evolved for replacement of the failed 8 MVA power transformer by a healthy unit of same capacity at Magaral 33/11 kV SS

Details of works:

- Erection of 1 No. healthy 8 MVA power transformer at the existing Magaral 33/11 kV SS.
- Dismantling of failed 1 No. 8 MVA power transformer at the existing Magaral 33/11 kV SS.

29-08-2026

EXECUTIVE ENGINEER/MASTER PLAN-I

Replacement of failed 8 MVA power transformer by healthy unit of same capacity at Magaral 33/11 kV SS in Kanchipuram EDC of Kanchipuram Region

Part I : New Asset Chargeable to Capital

Rs.in Lakhs

SL NO	DESCRIPTION	QTY	RATE in Lakhs	PER	AMOUNT in Lakhs
1	8 MVA, 33/11 kV Power Transformer with OLTC (cost data 2025-26)	1 No.	88.374	E	88.37
2	Cost of materials				88.37
3	Contingencies @ 1%				0.884
4	Subtotal				89.258
5	Labour and transport charges			LS	8.000
6	Sub total				97.26
7	Estt & supervision charges @ 15%				14.59
8	Sub total				111.85
9	Dismantling charges			LS	2.00
10	**Gross**				**113.85**
11	Less credit				31.41
12	**Nett**				**82.44**

Part I (a) : Dismantling Charges **2.00**

PART II: Accumulated depreciation charges

SL. No.	DESCRIPTION	Original cost	Full Life Period	Useful Life Period	Accumulated depreciation
1	8 MVA, 33/11 KV Power Transformer	31.41	25	23	26.01
					26.01

Part III : Devolution of old equipment to store

Part III:Part IV - Part II = 31.41 - 26.01 = **5.40**

Part IV : Removal of old assets Charges

SL. NO	Name of the item	Original Cost	Original Erection Charges 10%	Original Centages 15%	Original Cost of Asset
1	8 MVA, 33/11 kV Power Transformer **	24.830	2.48	4.10	31.41
	Total				**31.41**

** Rate as per P.O.Tr.1055 dt.06.02.2003

ABSTRACT

Rs.in Lakhs

Part I : New Asset Chargeable to Capital	**113.85** ***Gross***
	82.44 ***Nett***
Part I (a) : Dismantling Charges	**2.00**
Part II : Accumulated Depreciation Charges	**26.01**
Part III:Devolution of old equipment to store	**5.40**
Part IV : Removal of old assets Charges	**31.41**

29.08.2026

Executive Engineer/Master Plan I