

**TAMIL NADU TRANSMISSION CORPORATION LIMITED**  
**ABSTRACT**

Electricity – Coimbatore Region – CEDC/North – Replacement of 1 No failed 110/33KV, 16MVA Power Transformer-III at 110/33-22KV Madhampatty SS - Administrative approval – Accorded

**TECHNICAL BRANCH**

(Per) CH TANTRANSCO Proceedings No.149

Dated:09.09.2025  
Visuvavasu Varudam,  
Aavani - 24,  
Thiruvalluvar Aandu 2056

Read : Chairman's Note approval dated 04.09.2025:

**PROCEEDINGS:**

1. The Tamil Nadu Transmission Corporation Limited hereby approves the proposal for the Replacement of 1 No failed 110/33KV, 16MVA Power Transformer-III at 110/33-22KV Madhampatty SS of Coimbatore Operation Circle (CEDC/North) of Coimbatore Region at an estimated cost of Rs. 132.11 Lakhs Gross and Rs. 9.87 Lakhs Nett. and ratification for having replaced the failed power transformer with healthy Power Transformer in anticipation of approval.
2. The detailed estimate and report are annexed to these proceedings.
3. The expenditure is chargeable to TANTRANSCO - Funds - Capital Expenditure - CEDC/North of Coimbatore Operation circle of Coimbatore Region - A/C code No:1020400.
4. By virtue of the provisions contained in sub-section (2) (a) of section 185 of the Electricity Act, 2003, TANTRANSCO being the Transmission utility, 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.
5. The works will be taken up after ensuring necessary budget provision.

// BY ORDER OF THE CHAIRMAN//

K.SRIDHARAN  
**CHIEF ENGINEER/TRANSMISSION(FAC),**

Encl: Report and detailed estimate.

To

The Chief Engineer/Distribution/Coimbatore Region

Enclosure to (Per) CH TANTRANSCO Proceedings No.149, dated: 09.09.2025

Copy to:

The Managing Director/TANTRANSCO/Chennai-2

The Director/Transmission Projects/TANTRANSCO/Chennai-2

The Director/Distribution/TNPDCL/Chennai-2

The Director Operation/TANTRANSCO/Chennai-2

The Director/Finance/TANTRANSCO/Chennai-2

The Chief Engineer/System Operation/Trichy

The Chief Engineer/Transmission Projects II/Trichy

The Superintending Engineer/Coimbatore EDC/North

The Superintending Engineer/Operation/Coimbatore Circle

The Superintending Engineer/GCC/Coimbatore

The Superintending Engineer/Planning Transmission /Chennai -2

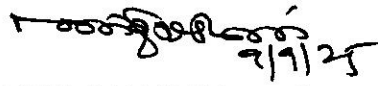
The Superintending Engineer/System Studies/Chennai -2

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

B.P.Section (Administrative Branch)

Stock file

//FORWARDED BY ORDER//



EXECUTIVE ENGINEER/MASTER PLAN I  
TANTRANSCO

**REPORT TO ACCOMPANY THE ESTIMATE**

This proposal envisages the Replacement of 1 No failed 110/33KV, 16MVA Power Transformer-III at 110/33-22KV Madhampatty SS of Coimbatore Operation Circle (CEDC/North) of Coimbatore Region at an estimated cost of Rs. 132.11 Lakhs Gross and Rs. 9.87 Lakhs Nett.

Need:

At present, Madhampatty 110/33-22KV SS is having 3 Nos. 16MVA, 110/22KV Power Transformer and 1 No. 16MVA, 110/33KV Power Transformer. The 16MVA, Atlanta make 110/22KV Power Transformer-III bearing serial No.1129A/5350 (repair unit) YOM:2018 was in service at Madhampatty 110/33-22KV SS from 02.01.2019.

On 10.03.2025, 33KV Thondamuthur feeder breaker at 110/33-22KV Madhampatty SS was tripped with B phase O/L (I) relay indication. After resetting relay indication, the feeder breaker was test charged and found normal.

On 14.03.2025, 33KV Thondamuthur feeder breaker at 110/33-22KV Madhampatty SS fault tripped with B phase O/L (T&I). At the same time, 3KV LV-III and 110KV GC-II breakers also tripped with actuation of differential relay with indication Y phase O/L(T) in Power Transformer – III, 110/33KV, 16MVA, ATLANTA make, Bearing Sl.No. 1129A/5350. Immediately, the above Power Transformer-III was isolated from service. The above power transformer has served for more than 6 years in 110/33-22KV Madhampatty SS. The loads were managed with nearby 110/11KV S.N.Palayam SS and 110/11 KV Devarayapuram SS.

The MRT test results revealed that there is considerable deviation and abnormal in AC voltage tests such as Core Balance test, LV and HV magnetizing current test and open circuit test compared with the previous test results.

The DGA test revealed that there is presence of fault gases and acetylene gas value was 15 ppm and further suspended arcing fault. The internal examination carried out by R&D wing on 15.03.2025 revealed that there is Y phase coil unshaped, Y phase coil top surge ring found dislocated, wooden blocks and spacer pieces released coil assembly, yoke tie frame bolts found broken, released nuts from bolts were found at the bottom of the main tank. The above Power Transformer has failed

beyond guarantee period. The above fault could not be attended at site and hence recommended to lift the above power transformer for repairing and reconditioning.

The date of replacement of the failed transformer with healthy Power Transformer of capacity 16 MVA 110/22KV VEI Pvt. Ltd. Make(YOM: 2014) is on 27.03.2025.

Details of works:

- Erection of 1 No. healthy 16 MVA Power Transformer at the existing Madhampatty 110/33kV SS.
- Dismantling of failed 1 No. 16 MVA Power Transformer at the existing Madhampatty 110/33kV SS.

  
7/3/25  
EXECUTIVE ENGINEER/MASTER PLAN I  
TANTRANSCO

ESTIMATE FOR REPLACEMENT OF THE FAILED 16 MVA, 110/33KV POWER TRANSFORMER-3 WITH A HEALTHY UNIT OF SAME CAPACITY AT MADHAMPATTY 110/33-22KV SS IN COIMBATORE EDC/NORTH

Part - I: Cost of new asset

Rs in lakhs

Sl.No	DESCRIPTION	QTY	RATE	PER	AMOUNT
1	16MVA, 110/33 kV power transformer with OLTC	1 No.	102.110	No	102.110
	Cost of materials				102.110
	Contingencies 1%	actuals			1.021
	Labour & Transport charges (Actual Labour charges)	LS			6.430
	Sub total				109.561
	Estt & supervision charges @ 15 %				16.434
	Dismantling charges	actuals			6.112
	<b>Gross</b>				<b>132.107</b>
	Less credit				122.237
	<b>Nett</b>				<b>9.870</b>

(Rate as per PO/CE/TR: 2602/20.09.2014)

Part I(A):Dismantling charges

6.11 Lakhs

Part II:Accumulated Depreciation

Sl.No	Name of the item	Original cost	Total life in years	Life served in years	Accum. depre. 0.9(Cl.3x Cl.5/ Cl.4)	
1	16 MVA,110/33kV PowerTransformer	122.24	25	6	26.40	
		<b>122.24</b>			<b>26.40</b>	

Part III: Devolution of old equipment to stores

Part IV - Part II = 95.83 lakhs

Part IV: Removal of old asset

Rs. in lakhs

Sl.No	Name of the item	QTY	Original Cost	Original Erection Charges 10%	Original Centages 15%	Original Cost of Asset
1	16 MVA, 110/33kV Power Transformer	1	96.630	9.663	15.94	122.24
	<b>Total</b>					<b>122.24</b>

(Rate as per PO/CE/TR: 2773/17.02.2016)

ABSTRACT

Part - I:Cost of new asset

**RS IN LAKHS**  
**GROSS 132.11**  
**NETT 9.87**  
**6.11**  
**26.40**  
**95.83**  
**122.24**

Part I(A):Dismantling charges

Part II:Accumulated Depreciation

Part III: Devolution of old equipment to stores

Part IV: Removal of old asset

  
 Executive Engineer/Master Plan-I  
 TANTRANSO