

TAMILNADU POWER DISTRIBUTION CORPORATION LIMITED
ABSTRACT

Electricity – Chennai Region – Chennai EDC/Central – Replacement of failed 16 MVA power transformer with a healthy unit of same capacity at Nehru Indoor Stadium 33/11 kV SS - Administrative approval - Accorded.

TECHNICAL BRANCH

(Per). MD TNPDC Proceedings No.60

Dated: 30.07.2026.

Sri Parabhava Varudum,

Aadi : 14

Thiruvalluvar Aandu 2057.

READ: Chairman cum Managing Director's approval dated 24.07.2026.

PROCEEDINGS:

1. The Tamilnadu Power Distribution Corporation Limited hereby approves the proposal for replacement of failed 16 MVA, 33/11kV Power Transformer with a healthy unit of same capacity at Nehru Indoor Stadium 33/11 kV SS in Chennai EDC/Central of Chennai Region at an estimated cost of Rs.190.56 lakhs Gross and Rs.145.28 lakhs Nett. and ratifies the action of Chief Engineer/Distribution/Chennai Region for having replaced the failed power transformer in anticipation of approval. The detailed estimate and report are annexed to these proceedings.
2. The expenditure is chargeable to TNPDC - Funds - Capital Expenditure – Chennai EDC/Central - A/C code No: 10 20 400.
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.

// BY ORDER OF THE CMD//

J.PUSHPALATHA
CHIEF ENGINEER/PLANNING & RC

Encl: Report and detailed estimate.

To

The Chief Engineer/Distribution/Chennai Region

(Per).MD.TNPDCL Proceedings No.60 dated: 30.07.2026.

Copy to:

The Director/Distribution/TNPDCL

The Director / Finance / TNPDCL

The Chief Engineer/ Material Management

The Superintending Engineer/Chennai EDC/Central

The Superintending Engineer/RE&ID/Chennai

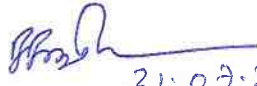
The Company Secretary/TNPDCL, Chennai.

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

B.P.Section (Administrative Branch)

Stock file.

//FORWARDED BY ORDER//


31.07.2026

Executive Engineer/Master Plan - I

REPORT TO ACCOMPANY THE ESTIMATE

This proposal envisages replacement of failed 16 MVA, 33/11kV Power Transformer with a healthy unit of same capacity at Nehru Indoor Stadium 33/11 kV SS in Chennai EDC/Central of Chennai Region and ratifies the action of Chief Engineer/Distribution/ Chennai Region for having replaced the failed power transformer in anticipation of approval at an estimated cost of Rs.190.56 lakhs Gross and Rs.145.28 lakhs Nett.

Need:

Nehru Indoor Stadium 33/11 kV SS was in service with 2x16 MVA power transformers. The 16 MVA Venkateswara Electrical Industries Pvt. Ltd., make power transformer bearing Sl.No.AJS/2/16959 has been commissioned at Nehru Indoor Stadium 33/11 kV SS on 25.01.2006.

On 22.11.2023 at 09.30 hrs, the above 16 MVA Venkateswara Electrical Industries Pvt. Ltd. make power transformer got tripped due to actuation of Bucholz trip relay and Differential relay. Hence, the Power Transformer was isolated from service. Back feeding was partially made from the nearby B&C Mill 33/11 kV SS and Pulianthope 110 kV SS and the balance loads were managed with the existing other available 16 MVA power transformer. The year of manufacture of the above power transformer is 2004 and has served 19 years.

The MRT test results revealed that open circuit test values, magnetic balance test values in R, Y, & B phases were abnormal and insulation resistance value (IR) between HV and LV winding was zero. Hence, inter turn fault in HV & LV coils was suspected.

The DGA test results on oil samples revealed that all fault gas values had significantly increased when compared with the results of previous test conducted on 30.05.2023. Discharge of high energy 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 25.11.2023 and burnt carbonized insulation papers were found scattered on top of the press board and core sheets. No other visible faults were observed. Hence, based on the MRT test results & DGA test results, internal winding insulation faults between HV and LV windings was suspected. As the same could not be attended at site, the power transformer was declared as failed.

In order to normalise the supply, the failed unit was replaced by a healthy 16 MVA power transformer of Venkateswara Electrical Industries Pvt. Ltd., make bearing VEI/16M/577 and the same was commissioned on 17.11.2025. Hence, this estimate has been evolved to regularize the replacement made already at Nehru Indoor Stadium 33/11 kV SS.

The failed power transformer was lifted by M/s.Shree Abirami Engineering Works Pvt. Ltd., for repairing and reconditioning.

In this regard, it is to be stated that as the passage leading to the above substation is very narrow, it was proposed to transport the defective power transformer via Nehru Indoor Stadium. However, a wall has been constructed by Sports Development Authority of India (SDAT) adjacent to the gate at back side of the substation. Hence, transportation of defective power transformer has been made by demolishing the compound wall & grill gate of the Substation and the same has been reconstructed. The expenditure incurred for the same has been included in this proposal.

Details of Works:

- Erection of 1 No. healthy 16 MVA power transformer at the existing Nehru Indoor Stadium 33/11 kV SS.
- Dismantling of failed 1 No. 16 MVA power transformer at the existing Nehru Indoor Stadium 33/11 kV SS.


31.07.2026

EXECUTIVE ENGINEER/MASTER PLAN-I

**Replacement of failed 16 MVA power transformer by healthy unit of same capacity at Nehru
Indoor Stadium 33/11 kV SS in Chennai EDC/Central of Chennai Region**

Part I : New Asset Chargeable to Capital

Rs.in Lakhs

SL NO	DESCRIPTION	QTY	RATE in Lakhs	PER	AMOUNT in Lakhs
1	16 MVA, 33/11 KV Power Transformer (P.O. rate)	1 No.	164.772	E	164.77
2	Restoration of demolished compound wall, grill gate and damaged cable trench between Pr.Trs. including material & labour charges			LS	0.50
3	Cost of materials				165.27
4	Labour and transport charges		Borne by the Company		0.000
5	Sub total				165.27
6	Estt & supervision charges @ 15%				24.79
7	Sub total				190.06
8	Dismantling charges		actual		0.50
9	Gross				190.56
10	Less credit				45.39
11	Nett				145.18

Part I (a) : Dismantling Charges

0.50

PART II Accumulated depreciation charges

SL. No.	DESCRIPTION	Original cost	Full Life Period	Useful Life Period	Accumulated depreciation
1	16 MVA, 33/11 KV Power Transformer	45.39	25	19	31.04
					31.04

Part III : Devolution of old equipment to store

Part III:Part IV - Part II =

45.39 - 31.04

= **14.34**

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	16 MVA, 33/11 KV Power Transformer **	35.878	3.59	5.92	45.39
	Total				45.39

** Rate as per cost data 2004-2005

ABSTRACT

Rs.in Lakhs

Part I : New Asset Chargeable to Capital

190.56 Gross

145.18 Nett

Part I (a) : Dismantling Charges

0.50

Part II : Accumulated Depreciation Charges

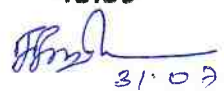
31.04

Part III:Devolution of old equipment to store

14.34

Part IV : Removal of old assets Charges

45.39


 31.03.2026
 Executive Engineer/Master Plan I

