

TAMIL NADU TRANSMISSION CORPORATION LIMITED

ABSTRACT

TANTRANSKO – Provision of dual 110 V DC source for 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panels at Arani 230/110 kV SS in Villupuram Operation Circle of System Operation/Chennai – Administrative approval – Accorded

TECHNICAL BRANCH

(Per) CH TANTRANSKO Proceedings No. 37

Dated: 08.05.2026
Parabhaava Varudam
Chithirai - 25
Thiruvalluvar Aandu - 2057

READ: Chairman's approval dated : 08.04.2026

PROCEEDINGS:

1. The Tamil Nadu Transmission Corporation Limited hereby approves the proposal for provision of dual 110 V DC source for 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panels at Arani 230/110 kV SS in Villupuram Operation Circle of System Operation/Chennai at an estimated cost of Rs. 212.597 lakhs Gross and Rs.120.392 lakhs Nett as per the recommendation of SRPC Protection Audit Committee. The detailed estimate and report are annexed to these proceedings.
2. The expenditure is chargeable to TANTRANSKO - Funds - Capital Expenditure - Villupuram Operation Circle - 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, TANTRANSKO 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.
4. The works will be taken up after ensuring necessary budget provision.

// BY ORDER OF THE CHAIRMAN//

J.PREMALATHA
CHIEF ENGINEER/TRANSMISSION

Encl: Report and detailed estimate

To

The Chief Engineer/System Operation/Chennai

(Per) CH TANTRANSCO Proceedings No. 37, dated : 08.05.2026

Copy to:

The Managing Director/TANTRANSCO/Chennai-2
The Director/Distribution/TNPDCL/Chennai-2
The Director/Transmission Projects/TANTRANSCO/Chennai-2
The Director Operation/TANTRANSCO/Chennai-2
The Director/Finance/TANTRANSCO/Chennai-2
The Chief Engineer/Transmission Projects/ Trichy
The Chief Engineer/System Operation/Chennai
The Superintending Engineer/Operation/Villupuram
The Superintending Engineer/GCC/Trichy
The Superintending Engineer/Transmission-I/Chennai -2
The Superintending Engineer/Transmission-II/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//

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08/05/2026

EXECUTIVE ENGINEER/MASTER PLAN II

Enclosure to (Per) CH TANTRANSCO Proceedings No. 37, dated : 08.05.2026

REPORT TO ACCOMPANY THE ESTIMATE

This proposal envisages provision of dual 110 V DC source for 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panels at Arani 230/110 kV SS in Villupuram Operation Circle of System Operation/Chennai at an estimated cost of Rs. 212.597 lakhs Gross and Rs.120.392 lakhs Nett as per the recommendation of SRPC Protection Audit Committee.

Need:

Arani 230/110 kV SS was commissioned on 16.03.1983. At present there are 4 Nos. 80 MVA, 230/110 kV auto transformers, 5 Nos. 230 kV feeders, 9 Nos. 110 kV feeders and 2 nos. 110 kV capacitor banks available at Arani 230/110 kV SS.

The administrative approval was accorded for procurement of materials for Renovation & Modernisation of 400 kV & 230 kV Substations and Hydro Power stations by availing funding assistance from Power System Development Fund (PSDF) vide (Permanent) TANTRANSCO Proceedings (Ch) No.48, dated: 08.03.2018.

The SRPC Protection Audit Committee has recommended for provision of dual DC source for 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panel at Arani 230/110 kV SS. The materials along with Control cables of various sizes were drawn under PSDF scheme.

The PSDF funding scheme was closed and the work is to be executed under TANTRANSCO funds.

Details of work involved:

- Erection of Control and Relay panels for 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panels at Arani 230/110 kV SS.
- Laying of Control cables of different size.
- Dismantling of existing Control and Relay panels and Control cables of different size.

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08/05/2026
EXECUTIVE ENGINEER/MASTER PLAN II

Estimate for provision of dual DC source of 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panel at Arani 230/110 kV SS in Villupuram Operation Circle of System Operation/Chennai

PART I : Chargeable To New Asset :1020400

S.No	DESCRIPTION	QTY		RATE	PER	AMOUNT in Lakhs
1	Control & Relay Panel for 230 kV feeder	3	No	7.425	E	22.275
2	Control & Relay Panel for 230 kV auto transformer	2	No	8.833	E	17.666
3	230 kV Busbar Protection relay panels (Equipped upto 20 circuits) Double bus	1	No	22.497	E	22.497
4	Control cable armoured (Copper,Multi stranded) - 20x2.5 sq.mm	10.916	km	5.400	km	58.946
5	Control cable armoured (Copper,Multi stranded) - 14x2.5 sq.mm	0.585	km	3.800	km	2.223
6	Control cable armoured (Copper,Multi stranded) - 8x4 sq.mm	5.262	km	3.487	km	18.349
7	Control cable armoured (Copper,Multi stranded) - 4x4 sq.mm	1.39	km	1.897	km	2.637
8	Cost of materials					144.593
9	Contingencies @1%					1.446
10	Sub total					146.039
11	Labour Charges (As per report received from CE/SO)					8.041
12	Sub total					154.080
13	Establishment & Supervision charges @15%					23.112
14	Sub total					177.192
15	GST @18%					31.895
16	Total Electrical					209.086
17	Add dismantling charges (As per report received from CE/SO)					3.511
18	Total (Gross)					212.597
19	Less credit					92.205
20	Total (Nett)					120.392

Part I A: Dismantling Charges Chargeable to A/c code No. 4021137 (As per report received from CE/SO)

=

3.511 lakhs

Estimate for provision of dual DC source of 3 nos 230 kV feeders, 2 nos 230 kV auto transformers, 1 no bus coupler and bus bar protection panel at Arani 230/110 kV SS in Villupuram Operation Circle of System Operation/Chennai

Part II : Accumulated Depreciation Chargeable to (STOCK) A/c code No. 1011300

Sl.No	Description	Qty	Original cost of asset in lakhs	Full life period	Useful life period	Acc.Dep = 0.9* (col.4*col.6/col.5)
1	Released materials as per Part IV	Part IV	92.205	25	25	82.985
2	Total		92.205			82.985

Part III Devolution of old equipment to store

Part III = Part IV - Part II = 9.22 lakhs

PART IV REMOVAL OF OLD ASSET CHARGABLE TO A/c No. 1010300

Sl.No	Description	Qty	Original cost in lakhs	Original erection charges	Original centage	Original cost of asset in lakhs
1	Control & Relay Panel for 230 kV feeder	5 Nos	18.563	1.856	3.063	23.482
2	Control & Relay Panel for 230 kV auto transformer	3 Nos	13.250	1.325	2.186	16.761
3	Control cable armoured (Copper,Multi stranded) - 20x2.5 sq.mm	10.916 km	29.473	2.947	4.863	37.284
4	Control cable armoured (Copper,Multi stranded) - 14x2.5 sq.mm	0.585 km	1.112	0.111	0.183	1.406
5	Control cable armoured (Copper,Multi stranded) - 8x4 sq.mm	5.262 km	9.174	0.917	1.514	11.605
6	Control cable armoured (Copper,Multi stranded) - 4x4 sq.mm	1.39 km	1.318	0.132	0.218	1.668
	Total					92.205
Rs. In Lakhs						
Abstract						
Part I: New Asset Chargeable					Gross	212.597
					Nett	120.392
Part I (a):Dismantling charges Chargeable						3.511
Part II: Accumulated Depreciation Chargeable						82.985
Part III :Devolution of old equipment to store						9.221
Part IV :Removal of old assets Chargeable						92.205

J. Kiran
08/05/2026
Executive Engineer/Master Plan II

