





NOTES:-

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
  - RIGID BUS IS PROPOSED FOR 110KV MAIN BUS.
  - a) 110KV SWITCHYARD WITH BOUNDARY 'ABCD' SHALL BE FIXED WITH RESPECT TO THE EXISTING ROAD LEVEL. THE CUTTING & FILLING QUANTITIES SHALL BE FINALISED BASED ON RL FIXED.
  - SECURITY COMPOUND WALL SHALL BE PROVIDED ALONG THE BOUNDARY LINE "ABCD"
  - 5M WIDE APPROACH ROAD SHALL BE PROVIDED IN THE STATION SITE INCLUDING THAT IN THE SWITCH YARD AS INDICATED IN THE SITE PLAN & DETAILED LAYOUT PLAN.
  - FOR DETAILS OF BOUNDARY DIMENSIONS & CO ORDINATES, REFER DRG. TOPOGRAPHICAL SURVEY WITH BLOCK LEVELS.
  - CONTROL ROOM OF SIZE 20.5X10.7M OF STANDARD CONTROL ROOM BUILDING IS PROPOSED FOR THIS STATION.
  - TO FIX EXACT LOCATION OF STATION YARD, FIRST FIX THE 110KV STRUCTURE LINE A1-A2 WITH CO ORDINATES OF POINTS GIVEN BELOW.
- | POINTS | S-N   | W-E   |
|--------|-------|-------|
| A1     | -2.38 | 67.9  |
| A2     | -2.07 | 59.68 |
- FOR BILL OF MATERIALS/EQUIPMENTS/STATION STRUCTURES & MOUNTING STRUCTURES REFER ANNEXURE- SCHEDULE OF REQUIREMENTS.
  - ROUTE OF PROPOSED CABLE DUCT FOR SSY -1 & SSY-2 TYPES ARE INDICATED IN THE LAYOUT PLAN. FROM MAIN CABLE DUCTS ie. SSY-1 & SSY-2 TYPE TO THE RESPECTIVE EQUIPMENTS 'SSY-3' TYPE HUME PIPE SHALL BE PROVIDED FOR THE COMBINATION OF CONTROL & POWER CABLE 'SSY-4' TYPE SHALL BE PROVIDED & FOR ONLY CONTROL CABLE/ POWER CABLE. REFER TYPES OF CABLE DUCT DRAWING FOR OTHER DETAILS.
  - SPACE IS EARMARKED ON EITHER SIDE OF 110KV BAYS FOR FUTURE PROVISION, DEPENDING UPON THE ORIENTATION OF 110KV LINES. THE BAYS CAN BE EXTENDED ON ANY SIDE.
  - CABLE DUCT WHICH CROSSES 5M WIDE ROAD SHALL BE SUITABLY DESIGNED TO TAKE CARE OF THE LOAD OF THE VEHICLE WITH TRANSFORMER.
  - a) APPROVED IN 86TH TCC MEETING DATED-29.06.2021.  
b) AS PER T.O NOTE Dtd:-07.11.2024.  
c) MD MEETING PROCEEDINGS- DATED:-20.02.2025.
  - OTHER REFERENCE DRAWINGS-
    - SITE PLAN WITH BLOCK LEVEL.
    - CROSS SECTION DRAWING
    - SINGLE LINE DIAGRAM.

TECHNICAL PARTICULARS

SL.NO.	PARTICULARS	110KV RIGID BUS
1.	BASIC INSULATION LEVEL (KV)	550
2.	MINIMUM CLEARANCES	
	a) BETWEEN PHASES	2.0 M
	b) BETWEEN PHASE TO EARTH (CENTRE LINE OF TOWER)	2.1 M
	c) SECTIONAL CLEARANCE	3.5 M
3.	a) HEIGHT OF CROSS BUS CONDUCTOR	6.35 M.
	b) BAY WIDTH	8.2 M
	c) HEIGHT OF MAIN BUS	4.6 M
4.	HEIGHT OF CENTRE OF TERMINAL PAD PERTAINING TO VARIOUS EQUIPMENTS	
	a) ISOLATORS ADJACENT TO MAIN BUS	6.35 M
	b) OTHER ISOLATORS AND EQUIPMENTS	4.6 M
5.	MATERIALS OF THE BUS	
	a) MAIN ALUMINIUM TUBE BS 1600 SCH.40	75 MM DIA
	b) MAIN STRUNG BUS	-
	c) CROSS BUS	63 MM DIA
	i) ALUMINIUM TUBE ES.1600 SCH.40	MOOSE
	ii) ACSR CONDUCTOR	
6.	POST INSULATORS USED FOR BUS SUPPORTS AS PER IS 5350 PART II & III	
	a) NO.OF UNITS/STACK	1
	b) VOLTAGE CLASS	110KV
	c) HEIGHT OF INSULATOR STACK (MM)	1220
	d) PITCH DIA HOLES AT TOP (MM)	127
	e) NO. OF FIXING BOLTS	4
7.	a) 11KV, 90KN DISC INSULATORS	
	i) TENSION STRING	8
	b) 11KV, 90KN DISC INSULATORS	
	i) SUSPENSION STRING	8

R1	10.07.2025	REVISED AS PER T.O NOTE Dtd:-07.11.2024 AND AS PER PROCEEDINGS OF MD MEETING DATED:20.02.2025
REVISION	DATE	
KARNATAKA POWER TRANSMISSION CORPORATION LIMITED		
TECHNICAL PARTICULARS OF LAYOUT PLAN FOR THE PROPOSED 110/11KV SUB STATION AT MUDENUR IN RANEBENNU TALUK, HAVERI DISTRICT.		
DRG.NO.: KPTCL/TECH/SS-110/843/R1	DATE: 10.07.2025	SHEET 2 OF 4
AP-14170		
A.E	A.E.E	CEE (P&C)
DRN	CHD	REC
	SUB	APPROVED