

110kV STATION MINIMUM ALL YEAR ROUND RATINGS		
	NOMINAL RATING	SHORT CIRCUIT RATING
BUSBAR	2500A	31.5kA
FEEDER BAY	1250A	31.5kA
TRANSFORMER BAY	1250A	31.5kA
COUPLER BAY	2500A	31.5kA
SECTIONALISER BAY	2500A	31.5kA

LEGEND	
LT	LINE TRAP
SA	SURGE ARRESTER
VT	VOLTAGE TRANSFORMER
CT	CURRENT TRANSFORMER

HV BAY CONDUCTOR RATINGS SHALL OUTLINE RATINGS FOR SUMMER WINTER & AUTUMN.

IEC DESIGNATOR (ESB DESIGNATOR)	DESCRIPTION
QA1(CB)	CIRCUIT BREAKER
QB1(DA)	BUSBAR DISCONNECT
QB2(DB)	BUSBAR DISCONNECT
QB3(DL)	LINE DISCONNECT
QB4(DT)	TRAFD DISCONNECT
QC3(DE)	EARTH DISCONNECT
QC3(DEM4)	TRANSFORMER EARTH SWITCH
QB11/QB12/QB21/QB22 (SA1-2 SA1/SA1-2 SA2/SB1-2 SB1/SB1-2 SB2)	SECTIONALISER DISCONNECT
QA1(SA1-2 CB, SB1-2 CB)	SECTIONALISER CIRCUIT BREAKER
QB1(K1-DA, K2-DA)	WING COUPLER
QB2(K1-DB, K2-DB)	BUSBAR DISCONNECT
QA1(K1-CB, K2-CB)	WING COUPLER CIRCUIT BREAKERS

- KEY
- NEW
 - FUTURE
 - CUSTOMER
 - MULTICORE CT
 - ▲ (OHL) OVER HEAD LINE
 - ▲ CABLE SEALING END
 - CABLE

NOTE 1: THIS SLD IS AN ELECTRICAL REPRESENTATION OF THE STATION FOR PHYSICAL LAYOUT REQUIREMENTS REFER TO EIRGRID GENERAL FUNCTIONAL SPECIFICATION XDS-GFS-00-001.

NOTE 2: THE SPECIFIC MINIMUM 3 PHASE SHORT CIRCUIT BAY RATING 31.5kA, APPLIES TO BOTH ELECTRICAL AND MECHANICAL FORCES.

NOTE 3: ALL NEW 110kV DISCONNECTS SHALL BE MOTORISED (IN SINGLE AND DOUBLE BUSBAR STATIONS).

NOTE 4: SCS TBC. AIS STATION.

NOTE 5: REFER TO PROJECT SPECIFIC PROTECTION SPEC FOR:
 1. SPECIFIC BAY CT & VT RATINGS, BURDEN & ACCURACY CLASS REQUIREMENTS.
 2. TELEPROTECTION CHANNEL REQUIREMENTS
 3. TX NEUTRAL EARTH REQUIREMENTS

NOTE 6: INSTRUMENT TRANSFORMER CORES & WINDINGS ARE NOT TO BE SHARED ACROSS THE PROPERTY BOUNDARY FENCE WITH THE EXCEPTION OF A CT CORE FOR DIFFERENTIAL PROTECTION AND A VT WINDING FOR VOLTAGE SYNCHRONISATION WHERE APPLICABLE.

NOTE 7: REQUIREMENT AND POSITION OF SA/CT/VT IN IPP COMPOUND TO BE DETERMINED BY IPP. CUSTOMER TO DEMONSTRATE THAT TSO CABLE IS SUITABLY PROTECTED FROM OVER VOLTAGES.

NOTE 8: CUSTOMER EQUIPMENT TBC.

NOTE 9: OWNERSHIP BOUNDARIES TBC.

NOTE 10: REFER TO THE PROTECTION SPEC FOR SINGLE POLE CIRCUIT BREAKER CONTROL REQUIREMENTS.

NOTE 11: A PROTECTION SLD SHALL BE SUBMITTED FOR DETAILED DESIGN & AS-BUILT PURPOSES INCLUDING THE FOLLOWING:
 1. HV PLANT RATINGS FOR ALL HV COMPONENTS INCLUDING PROTECTION REQUIREMENTS AS OUTLINED IN NOTE 5.
 2. A LEGEND OUTLINING PROTECTION RELAY DETAILS USED INCLUDING RELAY TYPE, ANSI DEVICE NUMBERS AND LONG WIRED MLFB/ORDER CODE.
 3. PROTECTION RELAY INPUTS SHOWN WIRED TO INSTRUMENT TRANSFORMER CORES.

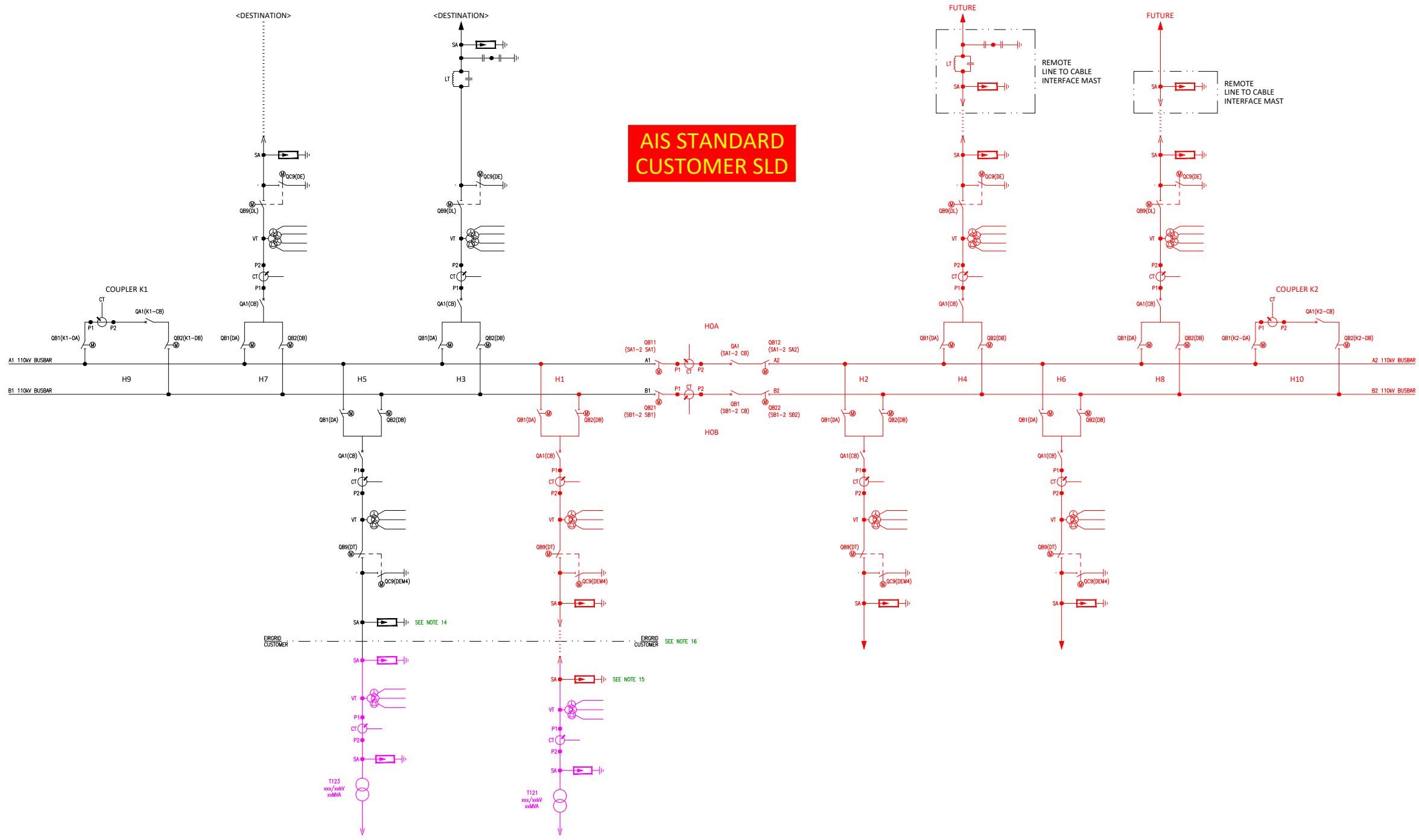
NOTE 12: ALL SA REQUIREMENTS TO BE CONFIRMED BASED ON INSULATOR COORDINATION STUDY.

NOTE 13: HIGHER SHORT CIRCUIT RATING MAY BE REQUIRED DEPENDING ON LOCATION OF THE SUBSTATION CONNECTION.

NOTE 14 (AS ILLUSTRATED ON DRAWING): MANDATORY REQUIREMENT FOR SA PRIOR TO EIRGRID/CUSTOMER BOUNDARY.

NOTE 15 (AS ILLUSTRATED ON DRAWING): MANDATORY REQUIREMENT FOR SA AT CUSTOMER END OF UNDERGROUND CABLE. THIS SA MAY BE WITHIN THE CUSTOMER COMPOUND BUT WILL BE OWNED BY THE TAO.

NOTE 16: THE DASHED LINE IS A GENERAL INDICATION OF THE BOUNDARY BETWEEN THE TRANSMISSION SYSTEM AND THE CUSTOMER'S INSTALLATION. THE OWNERSHIP OF EQUIPMENT HOWEVER IS INDICATED BY COLOUR, FOR EXAMPLE CUSTOMER OWNED EQUIPMENT IS SHOWN IN: THERE SHALL NOT BE ANY CUSTOMER OWNED HV EQUIPMENT LOCATED ON THE EIRGRID SIDE OF THE DASHED LINE. SOME TAO OWNED HV EQUIPMENT WILL HOWEVER BE LOCATED ON THE CUSTOMER'S SIDE OF THE DASHED LINE.



03	UPDATED TO MATCH THE LAYOUT DRAWING, NOTES UPDATED	DA	CC/AB	AG	27/07/2021
02	NOTES 10 & 11 UPDATED, NOTE 14 INCLUDED, NOTE INCLUDED BELOW RATINGS TABLE.	DA	NK	CF	21/11/2019
01	SLD UPDATED IN LINE WITH LATEST AIS LAYOUT AND PROTECTION DETAILS REMOVED	CHC	NK	CF	16/09/2019
00	FIRST ISSUE	JB	KF	PM	29/06/2015
REV	DESC	DRAWN	CHECKED	APPROVED	DATE

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PROJECT			
STANDARD 110kV AIS CUSTOMER SLD			
DRAWING TITLE			
STANDARD 110kV C-TYPE AIS BUSBAR CONFIGURATION			
No of Shts	1	SIZE	A3
SCALE	N/A		
DRAWING NUMBER	XDN-SLD-STND-H-005		
SHEET	001	REV	03