

DRAWING IS NOT TO SCALE - IF IN DOUBT, ASK

220 kV GIS STATION MINIMUM ALL YEAR ROUND RATINGS		
FEEDER BAY	NOMINAL RATING	SHORT CIRCUIT RATING
	2500A	40kA
HV BAY CONDUCTOR RATINGS SHALL OUTLINE RATINGS FOR SUMMER WINTER & AUTUMN.		

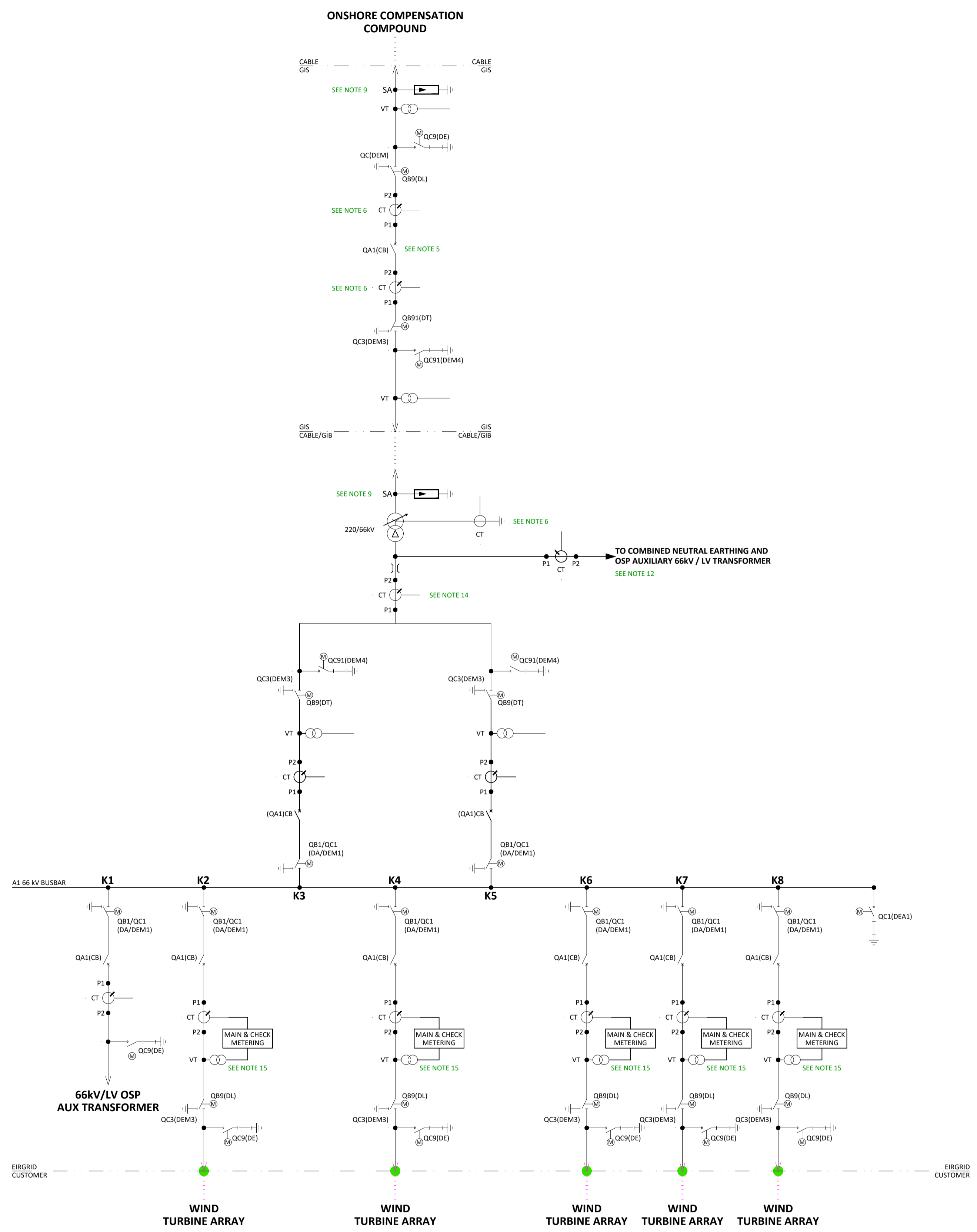
  

STANDARD IEC/ESB DESIGNATORS - GIS	
IEC DESIGNATOR (ESB DESIGNATOR)	DESCRIPTION
QA1(CB)	CIRCUIT BREAKER
QB1(DA)	BUSBAR DISCONNECT
QB9(DL)	LINE DISCONNECT
QB9(DT)	TRAF0 DISCONNECT
QB9(DT)	TRAF0 DISCONNECT
QC/QC1/QC2/QC3 (DEM/DEM1/DEM2/DEM3)	MAINTENANCE EARTH SWITCH
QC1(DEA1)	BUSBAR EARTH SWITCH
QC9(DE)	ISOLATABLE HIGH SPEED EARTH DISCONNECT
QC91(DEM4)	ISOLATABLE HIGH SPEED EARTH DISCONNECT

LEGEND	
SA	SURGE ARRESTOR
VT	VOLTAGE TRANSFORMER
CT	CURRENT TRANSFORMER

- KEY**
- NEW - TO BE OWNED BY EIRGRID
  - NEW - CUSTOMER
  - MULTICORE CT
  - MULTIWINDING VT
  - ) ( THROUGH WALL OF BUILDING
  - ^ CABLE SEALING END / GIS CABLE TERMINATION
  - ..... CABLE
  - CONNECTION POINT

- NOTE 1:**  
THIS SLD IS AN ELECTRICAL REPRESENTATION OF THE STATION. DEVIATIONS IN ASSET CONFIGURATIONS ARE ACCEPTABLE DEPENDING ON THE SPECIFIC PROJECT REQUIREMENTS, I.E. QUANTITY OF MV BAYS, HV TRAFOS, ETC. THE FINAL ARRANGEMENT SHALL BE AGREED WITH EIRGRID.
- NOTE 2:**  
THE SPECIFIC MINIMUM 3 PHASE SHORT CIRCUIT BAY RATING 40kA FOR 220kV SYSTEMS APPLIES TO BOTH ELECTRICAL AND MECHANICAL FORCES.
- NOTE 3:**  
THIS IS AN SCS STATION.  
THIS IS A GIS STATION.
- NOTE 4:**  
ALL 220kV DISCONNECTS SHALL BE MOTORISED.
- NOTE 5:**  
220 kV SINGLE POLE CIRCUIT BREAKER CONTROL REQUIREMENTS SHALL BE EVALUATED AND PROPOSED BY THE CUSTOMER.
- NOTE 6:**  
REFER TO PROJECT SPECIFIC PROTECTION REQUIREMENTS FOR:  
1. CT AND VT REQUIREMENTS  
2. PROTECTION COMMUNICATION REQUIREMENTS  
3. TX NEUTRAL EARTH REQUIREMENTS
- NOTE 7:**  
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 6.  
2. A LEGEND OUTLINING PROTECTION RELAY DETAILS USED INCLUDING RELAY TYPE, ANSI DEVICE NUMBERS AND LONG RELAY MLFB/ORDER CODE.  
3. PROTECTION RELAY INPUTS SHOWN WIRED TO INSTRUMENT TRANSFORMER CORES.
- NOTE 8:**  
THE WINDING CONNECTIONS OF THE 220/66kV TRANSFORMER TO BE VERIFIED DURING PROJECT ENGINEERING.
- NOTE 9:**  
LOCATIONS AND REQUIREMENTS OF THE SURGE ARRESTERS ARE TO BE VERIFIED BY INSULATION COORDINATION STUDY.
- NOTE 10:**  
A SINGLE EXPORT FEEDER/TRANSFORMER IS SHOWN. HOWEVER, OSP CAN HAVE MORE THAN ONE EXPORT FEEDERS/TRANSFORMERS DEPENDING ON PROJECT REQUIREMENTS.
- NOTE 11:**  
THE 66kV NEUTRAL EARTHING IS NOT SHOWN BUT SHALL BE PROVIDED. ITS ARRANGEMENT SHALL BE PROPOSED BY CUSTOMER.
- NOTE 12:**  
2 x 100% REDUNDANT 66kV/LV AUXILIARY POWER TRANSFORMERS ARE REQUIRED. EXACT CONFIGURATION TO BE PROPOSED BY THE CUSTOMER.
- NOTE 13:**  
NUMBER OF 66 kV FEEDERS ARE INDICATIVE AND DEPEND ON PROJECT SPECIFIC REQUIREMENTS.
- NOTE 14:**  
EXACT POSITION OF THE CT (ON THE GAS INSULATED LINE OR TRANSFORMER TURRET) IS SUBJECT TO PROTECTION STUDY OUTPUT AND EIRGRID ACCEPTANCE.
- NOTE 15:**  
MAIN METERING REQUIRES A DEDICATED CT CORE AND DEDICATED VT WINDING FROM THE BAY. CHECK METERING CAN SHARE THE CORE AND WINDING WITH OTHER FUNCTIONS.
- NOTE 16:**  
THE DASHED LINE IS A GENERAL INDICATION OF THE BOUNDARY BETWEEN THE TRANSMISSION SYSTEM AND THE CUSTOMER'S INSTALLATION. THE OWNERSHIP OF THE EQUIPMENT IS INDICATED BY COLOR, FOR EXAMPLE, CUSTOMER OWNED EQUIPMENT IS SHOWN IN PURPLE COLOR.



01	CHANGED CONNECTION POINT TO STRINGS AND UPDATED METERING REQUIREMENTS.	DA	EAM/ System Integrity/ Offshore Operations	NC	28/06/2024
00	FIRST ISSUE	BC	VG / JS / LN	DG / NC	10/01/2023
REV	DESC	DRAWN	CHK'D	APP'D	DATE

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PROJECT			
<b>PHASE 1 - OFFSHORE STANDARDS</b>			
DRAWING TITLE			
<b>TYPICAL SINGLE LINE DIAGRAM FOR OFFSHORE 220/66 kV SUBSTATION</b>			
No of Shts	1	SIZE	A1
DRAWING NUMBER		SHEET	REV
OFD-OSP-504		001	01
SCALE		N/A	