DRAWING NO. 123A90-DDL-EL-DG-20185

REV. 01

EXISTING SUB-SEA CABLE FROM
HNA5-AFA70 66kV HV SWITCGEAR

3x400 mm²

HV CABLES SPLICE CONNECTION
XB2 (Z2)

3 x (1x300 mm²)

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HNA6-AFA70 - GIS

66kV, 1250A, 3PH, 50Hz, 31.5kA, 1s

VD1

ES
QZ92

1250A
DS
QZ92

LPVT

CB
Q0(QA1)
31.5kA
1250A

DS
QZ91
1250A

ES
QZ91

LPIT

VD2

3 x (1x300 mm²)

01

17

TR100AD1
KNAN
7 MVA
66 ± 8x1,25% / 6,9kV
Dyn11
Zcc = 8%
OLTC

NER
RR-100D1
400 A

3 x 2(1x120 mm²)

TO 6.6kV HV SWITCHGEAR
SG-100D1

LEGEND of SYMBOLS:

- THREE-PHASE TRANSFORMER WITH TAP CHANGER, CONNECTION DELTA STAR
- NER — NEUTRAL EARTHING RESISTOR
- T CONNECTOR
- CABLE AIR TERMINATION
- CIRCUIT BREAKER (MOTOR SPRING CHARGED OPERATION)
- 3 POSITIONs DISCONNECTING & EARTHING SWITCH (MOTOR OPEARTION)
- VOLTAGE & CURRENT TRANSFORMER (3Ø X 2) (LPIT TYPE)
- VOLTAGE TRANSFORMER (3Ø X 2) (LPVT TYPE)
- VOLTAGE DETECTING SENSOR
- SURGE ARRESTOR FOR T-CONNECTOR (N.1 FOR EACH PHASE)

NOTES:

1. A COMBINED CCS/EMCS SYSTEM COMPRISES A MICROPROCESSOR BASED SYSTEM, ASSOCIATED SOFTWARE AND REQUIRED PERIPHERALS FOR MONITORING AND CONTROLLING OF ELECTRICAL POWER NETWORK. ALL ELECTRICAL EQUIPMENT AND PACKAGE UNITS SHALL BE CONNECTED TO THE CENTRAL CONTROL SYSTEM .
2. CROSSWIND SHALL BE ABLE TO CONTROL THE BLPH 66KV MOTORISED CIRCUIT BREAKER Q0 (QA1) & MOTORISED ELECTRICAL DISCONNECTOR / EARTH SWITCH (QZ92, TYPE B) USING THEIR 'HV-SCADA' SYSTEM. THIS BACK-UP / REDUNDANT CONTROL SHALL BE ADDITIONAL TO THAT PROVIDED BY THE CCS AND BE OF HIGHER PRIORITY OVER A SEPARATE FIBRE OPTIC CABLE (FOC). THE CCS OPERATOR AND 'HV-SCADA' SHALL BOTH BE KEPT FULLY AWARE OF EQUIPMENT STATUS AT ALL TIMES. INTERTRIPPING, INHIBITS & INTERLOCKING FOR BLPH 66kV EQUIPMENT SHALL BE AS PER THE WIND FARM.

OLTC	= ON LOAD TAP CHANGE
KNAN	= NON-MINERAL OIL NATURAL AIR COOLED
AN	= AIR NATURAL
QZ	= DISCONNECTING & EARTHING SWITCH
QA	= CIRCUIT BREAKER
VT	= VOLTAGE TRANSFORMER

HOLDS:

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REFERENCES:

1. 123A90-DDL-EL-DG-20015 - ELECTRICAL SINGLE LINE DIAGRAM MV SYSTEMS
2. 123A90-DDL-EL-DG-20158 - OVERALL-KEY SINGLE LINE DIAGRAM
3. 1723001595-EL-DG-00014 - BASE LOAD POWER HUB (BLPH) - 66kV SWITCHGEAR (GIS) GAS SINGLE LINE DIAGRAM
4. 1723001697-EL-DA-00009 - TR-100AD1-NER - GENERAL ARRANGEMENT DRAWINGS

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REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
01	22/03/2024	LBO	AMA	DLO	ACCEPTED FOR CONSTRUCTION (AFC)
00	15/02/2024	LBO	AMA	DLO	ISSUE FOR REVIEW (IFR)

CROSSWIND

ROSETTI MARINO

TITLE :

ELECTRICAL SINGLE LINE DIAGRAM – HV SYSTEMS

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK			SCALE N/A
DRAWN LBO	CHECKED AMA	APPROVED DLO	DATE 22/03/2024
A1	DRAWING NO. 123A90-DDL-EL-DG-20185	SHEET 001	REV. 01

File Name : 123A90-DDL-EL-DG-20185