DTC Plant Enquiry, Our Ref 4712893, Your Ref 22/1707/Full' generated for Aldershot(Statutory Enquiries)(ee@ngdatel.com at 20/05/2024 12:27:24. This drawing is reproduced from our records archive at the time of enquiry.

BINAYA TAMRAKAR 28.05.2024

Rev	Revision Note	Date	Drawn by	Approved
1-0	Original Design:P-0102079-DWG-711-Rev0(TBS) JPID: 876894	15/05/24	BT	N/A
1-1	Original Design:P-0102079-DWG-001-Rev0	28/05/24	BT	N/A

HV POINT OF CONNECTION
POWER ON TO CARRY OUT 2No. HV STRAIGHT JOINTS ONTO THE EXISTING UKPN 3c 300mm² AL XLPE HV CABLE BETWEEN (HAM ROAD SHOREHAM AND CORRALLS 521304).
2No. 300mm² AL XLPE CABLE LAID UP TO THIS POINT BY POWER ON.
UKPN REF: 8200055069 / QID 3200043304
GRID REF: TQ 22225 05131

EXISTING UKPN 11kV 300m² SAC/XLPE TRIPLEX HV CABLE (11kV) TOWARDS 'HAM ROAD SHOREHAM (522791)'

EXISTING UKPN 11kV 300m² SAC/XLPE TRIPLEX HV CABLE (11kV) TOWARDS 'NUDE 521288'

OFF SITE
ON SITE

11kV 300mm² SAC/XLPE Triplex
57m

11kV 300mm² SAC/XLPE Triplex
62m

11kV 300mm² SAC/XLPE Triplex
10m

INTEGRAL SUBSTATION ROOM PROVIDED BY OTHERS

FREE WHARF, PHASE 2 IDNO SUBSTATION #1
1000kVA
11/0.433kV
Dyn11 KNAN
MIC/MEC 833kVA/0kVA

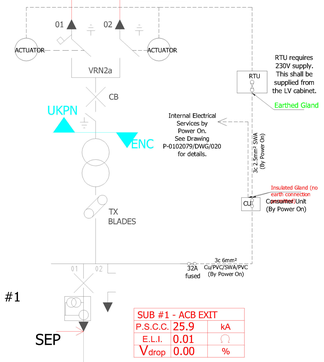
TLF Protection
Transformer Size 11kV (kVA)

CT Ratio	315	500	800	1000
50/5	5A	10A		
100/5		5A	7.5A	10A

STANDARD ACB PROTECTION SETTINGS TO GRADE WITH STANDARD UKPN TLF & VIP RELAY SETTINGS	
Transformer Rating	500kVA
ACB Type	Masterpact NW08H1 with Micrologic 5.0A control unit
Ir (xIn)	
Isd (xIr)	4
Ii (xIn)	Off
tr (s)	4
tsd (s)	0.1 with i^2t on
Overload trip current	830A
Earth fault 5 sec trip current	3,235A
Notes	Above settings assume standard "long term rating" plug used.

FREE WHARF IDNO SUBSTATION #1

Way	Fuse	Feeder Name
1	1600A	BNO SUPPLY
2	N/A	POT END



SUB #1 - ACB EXIT		
P.S.C.C.	25.9	kA
E.L.I.	0.01	
Vdrop	0.00	%

INTEGRAL SUBSTATION ROOM PROVIDED BY OTHERS

FREE WHARF, PHASE 2 IDNO SUBSTATION #2
500kVA
11/0.433kV
Dyn11 KNAN
MIC/MEC 499kVA/0kVA

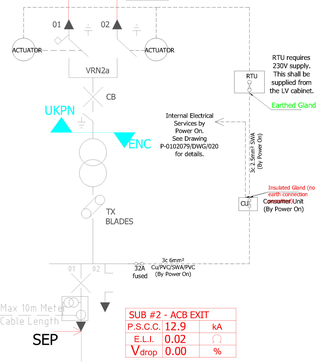
TLF Protection
Transformer Size 11kV (kVA)

CT Ratio	315	500	800	1000
50/5	5A	10A		
100/5		5A	7.5A	10A

STANDARD ACB PROTECTION SETTINGS TO GRADE WITH STANDARD UKPN TLF & VIP RELAY SETTINGS	
Transformer Rating	1000kVA
ACB Type	Masterpact NT16H2 with Micrologic 5.0E control unit
Ir (xIn)	
Isd (xIr)	4
Ii (xIn)	Off
tr (s)	1
tsd (s)	0.1 with i^2t
Overload trip current	1,668A
Earth fault 5 sec trip current	4,960A
Notes	Above settings assume standard "long term rating" plug used.

FREE WHARF IDNO SUBSTATION #2

Way	Fuse	Feeder Name
1	800A	PLANT ROOM
2	N/A	POT END



SUB #2 - ACB EXIT		
P.S.C.C.	12.9	kA
E.L.I.	0.02	
Vdrop	0.00	%

Meter not to be within DNO substation
METERING CTs
500kVA/800A ACB - CT RATIO 800/5

WEATHERPROOF METER ENCLOSURE BY OTHERS

PRIMARY SWITCHROOM - BLOCK F - LOWER GROUND LEVEL

LV TAILS BY OTHERS

AWA's to be earthed at customer's LV switchboard

BNO SUPPLY:833kVA
(LV PANEL BY OTHERS)

EARTHING REQUIREMENT AT CUSTOMER'S INTAKE POINT:
WHERE THE CUSTOMER IS INSTALLING A SEPARATE EARTH MAT, A MEANS FOR DISCONNECTING IT MUST BE PROVIDED TO FACILITATE MEASURING THE RESISTANCE. THIS MUST BE PROVIDED IN AN ACCESSIBLE POSITION (IN ACCORDANCE WITH THE CURRENT EDITION OF THE IEE WIRING REGULATIONS).

CUSTOMER'S LV TAILS REQUIREMENTS:
1) ACB WILL NOT ACCEPT MULTI-CORE CABLES
2) MAX 630mm² 1c Cu WITH AWA (ALUMINIUM WIRE ARMOUR), 2No. CABLES PER PHASE AND 1No. NEUTRAL (1/2 sized)
3) 1No. SEPARATE G/Y PVC EARTH CONDUCTOR (CPC)
4) NO FACILITY FOR EARTHED GLAND AT SUBSTATION (WOODEN COMPRESSION BLOCK ONLY)
5) C884 LUGS REQUIRED IN ACB PILLAR
6) LOAD TO BE BALANCED ACROSS ALL THREE PHASES SO FAR AS REASONABLY PRACTICABLE
7) LARGE AMOUNTS OF HARMONIC DISTORTION NOT PERMITTED FOR CONNECTION.
8) LV CABLES TO COMPLY WITH BS7671 INCLUDING THE FOLLOWING:
a) EARTH LOOP IMPEDANCE AT (UNEARTHED) SUBSTATION END OF CABLES SUFFICIENTLY LOW TO ACHIEVE MAX 5 SECOND DISCONNECTION OF ACB WITH SETTINGS AS SHOWN ABOVE
b) WHERE SUBSTATION ACB IS USED TO PROVIDE BOTH OVERLOAD AND SHORT CIRCUIT PROTECTION THE LV CABLES MUST BE SIZED TO CARRY OVERLOADS UP TO THE ACB SETTINGS - NOT JUST TRANSFORMER FULL LOAD CURRENT (FLC) OR AUTHORISED SUPPLY CAPACITY (MIC/MEC)
c) WHERE THE CUSTOMER'S MAIN INCOMING CIRCUIT BREAKER OR FUSES PROVIDE OVERLOAD PROTECTION THEN SMALLER CABLES MAY BE USED (REFER BS 7671 CLAUSE 433). IN THIS CASE THE CUSTOMERS DESIGNER MUST STILL CHECK THAT THE CABLES ARE ADEQUATELY RATED FOR THE SHORT CIRCUIT PROTECTION AFFORDED BY THE SUBSTATION ACB SETTINGS GIVEN ABOVE

LV TAILS BY OTHERS

AWA's to be earthed at customer's LV switchboard

PLANT ROOM SUPPLY: 499kVA
(LV PANEL BY OTHERS)

EARTHING REQUIREMENT AT CUSTOMER'S INTAKE POINT:
WHERE THE CUSTOMER IS INSTALLING A SEPARATE EARTH MAT, A MEANS FOR DISCONNECTING IT MUST BE PROVIDED TO FACILITATE MEASURING THE RESISTANCE. THIS MUST BE PROVIDED IN AN ACCESSIBLE POSITION (IN ACCORDANCE WITH THE CURRENT EDITION OF THE IEE WIRING REGULATIONS).

CUSTOMER'S LV TAILS REQUIREMENTS:
1) ACB WILL NOT ACCEPT MULTI-CORE CABLES
2) MAX 630mm² 1c Cu WITH AWA (ALUMINIUM WIRE ARMOUR), 2No. CABLES PER PHASE AND 1No. NEUTRAL (1/2 sized)
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LEGEND
- HV Cable (& Existing HV)
- LV Cable
- Live LV Cable
- Earth Bonding
- Termination
- Joint (HV / LV / Live LV)
- Pressure End (LV / Live LV)
- Earth Rod

This plan shows those cables owned by The Electricity Network Company Ltd. Other cables may be present in the area but their ownership and location may not be present in this area. Information with regard to such cables should be obtained from the relevant owners. The information shown on this plan is given without warranty, the accuracy thereof cannot be guaranteed. No liability of any kind whatsoever is accepted by the company, its agents, servants or contractors for any error or omission. Safe digging practices, in accordance with HSE guidelines, should be employed to locate the exact position of cables, services and other equipment on site before any mechanical plant is used. It is your responsibility to ensure that this information is provided to all persons (either direct labour or contractors) working for you on or near electrical equipment.

This electrical network design has been carried out by :
Electricity Network Manager
GTC
Woodpit Business Park
Bury St Edmunds
Suffolk
IP30 9UP
Tel : 01359 240363
Fax : 01359 244398
www.gtc-uk.co.uk

All cables and equipment used on this design are to be in accordance with G81 standards.

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the electricity network co

Drawing Scale :	NTS
O.S.REF :	522295, 105107
Network Number :	N0023683-1
Project Number :	
Drawing Number :	EN0023683-1_R1-1_2_of_2 Schematic
Developer :	HG Construction Ltd
Enquirer :	Power On Connections
Location :	Brighton Road, Shoreham-By-Sea, WEST SUSSEX, BN43 6RW

THIS DRAWING SHOWS:
SCHEMATIC **BLOCK E**
TOTAL PLOTS: 7

Block E Level 3:

SHEET SIZE A0