



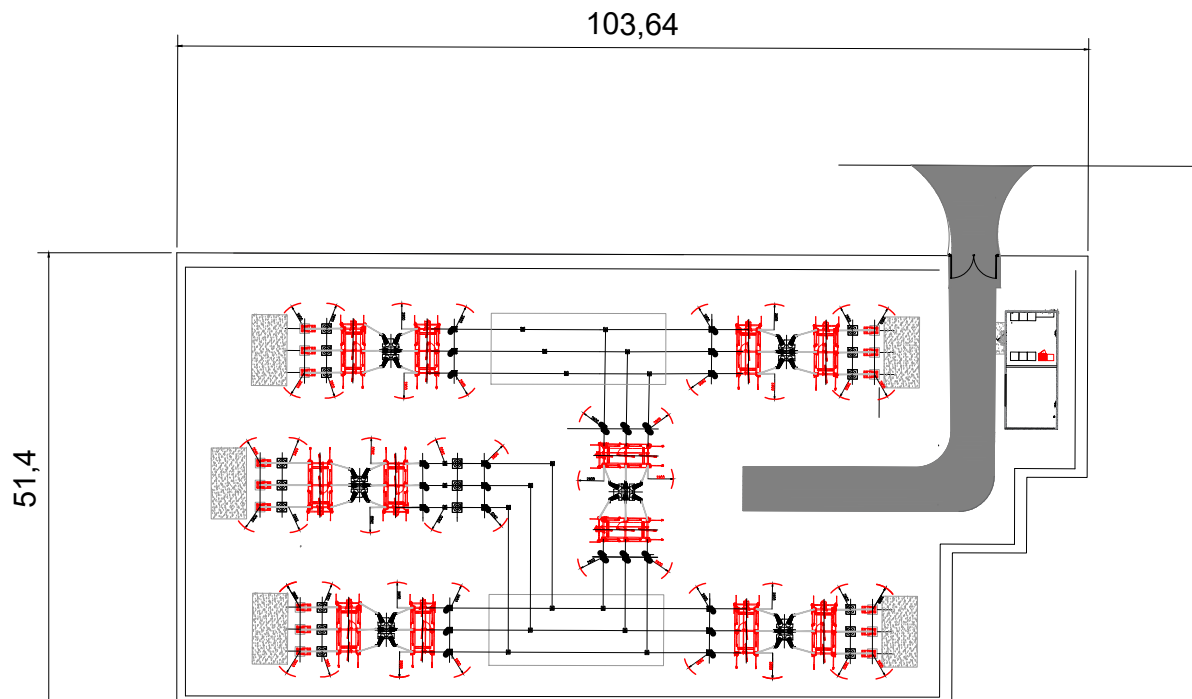
Candwr Solar Farm

Pre-Application Consultation

Onsite Substation Plan

2 July 2026





132KV MINIMUM ELECTRICAL CLEARANCES	
DESCRIPTION	DISTANCE (m)
PHASE TO PHASE CLEARANCE	1.5
PHASE TO EARTH CLEARANCE	1.5
DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS1	3.5
DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DSHT	3.1
INSULATION HEIGHT (PEDESTRIAN ACCESS)	2.4
SAFETY DISTANCE	3.0
VIEWP DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS2	5.5
VIEWP DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DSHT2	4.5

ABBREVIATION:

AUX TX	AUXILIARY TRANSFORMER
CB	CIRCUIT BREAKER
CSE	CABLE SEALING END
CVT	CAPACITIVE VOLTAGE TRANSFORMER
DIS	DISCONNECTOR
E/S	EARTH SWITCH
HK	MARSHALLING KIOSK
PA	PANTOGRAPH
PI	POST INSULATOR
SA	SURGE ARRESTER
TX	TRANSFORMER

TO BE VIEWED IN CONJUNCTION WITH LAYOUT DRAWING WEST BURTON 2 LAYOUT.

THE PROPOSED SUBSTATION LAYOUT IS BASED ON ASSUMPTION THAT THERE ARE NO SITE RESTRICTIONS.

THE PROPOSED BAY BUSBAR SIZE IS 90mm x 7mm. THE BUSBAR SIZE SHALL BE CONFIRMED DURING DETAILED DESIGN.

PRELIMINARY
NOT FOR SITE USE

3	PLANNING ISSUE- DESIGN CHANGE	TB	TB	LGOS	25.02.25
2	PLANNING ISSUE- DESIGN CHANGE	TB	TB	LGOS	25.10.25
1	PLANNING ISSUE- LAYOUT CHANGE	TB	TB	LGOS	15.10.25
0	PLANNING ISSUE	TB	TB	LGOS	06.10.25
Rev	REVISION	Draw	Design	Appd	Date



Project Title

COURTFARM 132/33/11KV SOLAR
PV

Title

COURTFARM 132KV OHL AIS
LOOP-IN SWITCHYARD SUBSTATION
LAYOUT - FOR PLANNING ONLY

Drawn	Designer	Checked	Date Approved
TB	TB	LGOS	25.02.25



Drawing No.

TE@CRF-14.13-PE-GA-AIS-019

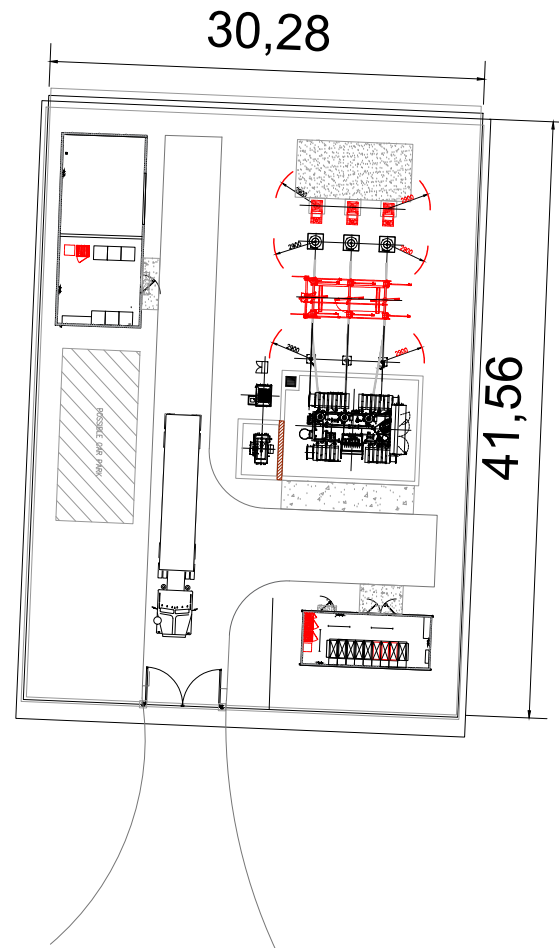
Status	Scale	Rev
PRELIMINARY	NTS	5

103640

DETAILED CROSS SECTION

51400

[illegible]



132KV MINIMUM ELECTRICAL CLEARANCES	
DESCRIPTION	DISTANCE (m)
PHASE TO PHASE CLEARANCE	1.0
PHASE TO EARTH CLEARANCE	1.4
DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS1	3.5
DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DSHT	3.1
INDICATION HEIGHT (PEDESTRIAN ACCESS)	2.4
SAFETY DISTANCE	3.0
NEWP DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS2	3.5
NEWP DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DSHT	4.5

ABBREVIATION:

AUX TX AUXILIARY TRANSFORMER
CB CIRCUIT BREAKER
CSE CABLE SEALING END
CVT CAPACITIVE VOLTAGE TRANSFORMER
DIS DISCONNECTOR
EIS EARTH SWITCH
MK MARSHALLING KIOSK
PA PANTOGRAPH
PI POST INSULATOR
SA SURGE ARRESTER
TX TRANSFORMER

TO BE VIEWED IN CONJUNCTION WITH LAYOUT DRAWING WEST BURTON 2 LAYOUT.

THE PROPOSED SUBSTATION LAYOUT IS BASED ON ASSUMPTION THAT THERE ARE NO SITE RESTRICTIONS.

THE PROPOSED BAY BUSBAR SIZE IS 90mm x 7mm. THE BUSBAR SIZE SHALL BE CONFIRMED DURING DETAILED DESIGN.

PRELIMINARY
NOT FOR SITE USE

2	PLANNING ISSUE - DESIGN CHANGE	TB	TB	LGOS	25.02.25
1	PLANNING ISSUE - LAYOUT CHANGE	TB	TB	LGOS	15.10.25
0	PLANNING ISSUE	TB	TB	LGOS	06.10.25
Rev	REVISION	Drawn	Design	Appd	Date



Project Title

COURTFARM 132/33/11KV SOLAR PV

Title

COURTFARM 132/33KV CUSTOMER SUBSTATION LAYOUT - FOR PLANNING ONLY

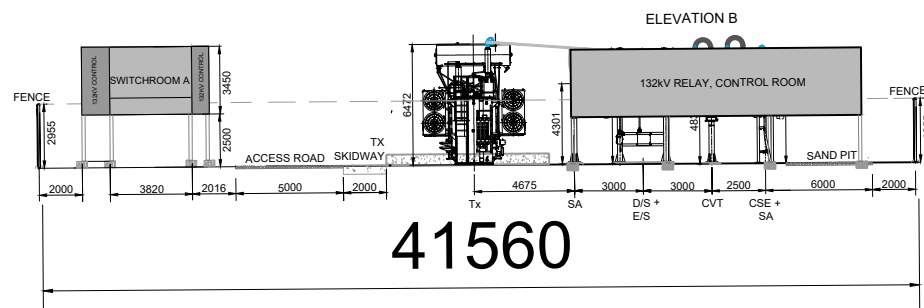
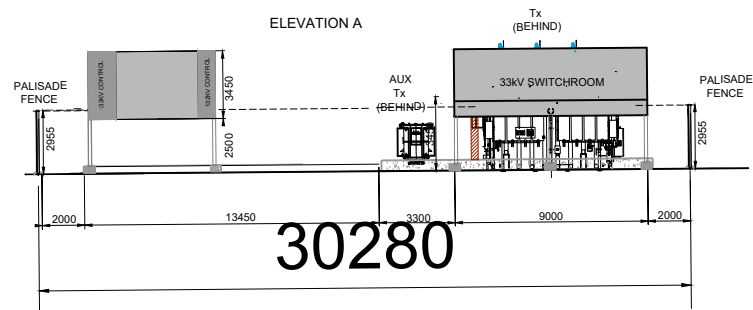
Drawn	Designer	Checked	Date Approved
TB	TB	LGOS	25.02.25



Drawing No

TE@CRF-14.13-PE-GA-33-003

Status	Scale	Rev
PRELIMINARY	NTS	3



132kV MINIMUM ELECTRICAL CLEARANCES	
DESCRIPTION	DISTANCE (m)
PHASE TO PHASE CLEARANCE	1.6
PHASE TO EARTH CLEARANCE	1.5
DESIGN CLEARANCE FOR SAFETY (VERTICAL) D51	3.5
DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) D5H1	3.1
INSULATION HEIGHT (PEDESTRIAN ACCESS)	2.4
SAFETY DISTANCE	3.0
MEWP DESIGN CLEARANCE FOR SAFETY (VERTICAL) D52	5.5
MEWP DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) D5H2	4.5

ABBREVIATION:

TO BE VIEWED IN CONJUNCTION WITH LAYOUT DRAWING
WEST BURTON 2 LAYOUT.

PRELIMINARY
NOT FOR SITE USE

2	PLANNING ISSUE- DESIGN CHANGE	TB	TB	LGOS	25.02.25
1	PLANNING ISSUE- LAYOUT CHANGE	TB	TB	LGOS	15.10.25
0	PLANNING ISSUE	TB	TB	LGOS	06.10.25
Rev	REVISION	Drawn	Design	Appd	Date



Project Title	
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Title	Author	Year	Journal	Volume	Page
1. The Effect of Temperature on the Rate of Reaction	John Doe	2010	Journal of Chemical Education	87	1234
2. Kinetics of the Reaction Between Hydrogen Peroxide and Potassium Iodide	Jane Smith	2011	Journal of Chemical Education	88	1234
3. The Effect of Concentration on the Rate of Reaction	John Doe	2012	Journal of Chemical Education	89	1234
4. The Effect of Surface Area on the Rate of Reaction	Jane Smith	2013	Journal of Chemical Education	90	1234
5. The Effect of Catalyst on the Rate of Reaction	John Doe	2014	Journal of Chemical Education	91	1234

Drawn	Designer	Checked	Date Approved
TB	TB	LGOS	25.02.25



Drawing No
TE@CRF-14.13-PE-GA-33-004

Status	Scale	Rev
PRELIMINARY	NTS	4

17810

33100

FROM 132/33kV SUBSTATION

132kV MINIMUM ELECTRICAL CLEARANCES

DESCRIPTION	DISTANCE (m)
PHASE TO PHASE CLEARANCE	1.6
PHASE TO EARTH CLEARANCE	1.8
DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS1	3.5
DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DSHT	3.1
INSULATOR HEIGHT (PEDESTRIAN ACCESS)	2.4
SAFETY DISTANCE	5.0
WEVP DESIGN CLEARANCE FOR SAFETY (VERTICAL) DS2	5.5
WEVP DESIGN CLEARANCE FOR SAFETY (HORIZONTAL) DS2	4.5

ABBREVIATION:

AUX TX	AUXILIARY TRANSFORMER
CB	CIRCUIT BREAKER
CSE	CABLE SEALING END
CVT	CAPACITIVE VOLTAGE TRANSFORMER
DIS	DISCONNECTOR
E/S	EARTH SWITCH
MK	MARSHALLING KIOSK
PA	PANTOGRAPH
PI	POST INSULATOR
SA	SURGE ARRESTER
TX	TRANSFORMER

TO BE VIEWED IN CONJUNCTION WITH LAYOUT DRAWING

WEST BURTON 2 LAYOUT.

THE PROPOSED SUBSTATION LAYOUT IS BASED ON ASSUMPTION THAT THERE ARE NO SITE RESTRICTIONS.

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PRELIMINARY
NOT FOR SITE USE

2	PLANNING ISSUE- DESIGN CHANGE	TB	TB	LGOS	25.02.25
1	PLANNING ISSUE- LAYOUT CHANGE	TB	TB	LGOS	15.10.25
0	PLANNING ISSUE	TB	TB	LGOS	08.10.25
Rev	REVISION	Drawn	Design	Appd	Date



Project Title

COURTFARM 132/33/11kV SOLAR
PV

Title

COURTFARM 33/11kV CUSTOMER
SUBSTATION ELEVATION - FOR
PLANNING ONLY

Drawn	Designer	Checked	Date Approved
TB	TB	LGOS	25.02.25



Drawing No.

TE@CRF-14.13-PE-GA-11-003

Status	Scale	Rev
PRELIMINARY	NTS	3

17810 EAST

EAST

N

Tx
(BEHIND)

AUX
Tx
— (BEHIND)

33kV RELAY, CONTROL ROOM
and STORES

PALISADE
FENCE

5810

10000

2000

33100

SOUTH

NORTH

PALISADE
FENCE

132kV CONTROL		132kV CONTROL
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ACCESS ROAD SKIDWAY

CSE +
SA

PALISADE
FENCE

ABBREVIATION:

AUX TX	AUXILIARY TRANSFORMER
CB	CIRCUIT BREAKER
CSE	CABLE SEALING END
CVT	CAPACITIVE VOLTAGE TRANSFORMER
D/S	DISCONNECTOR
E/S	EARTH SWITCH
MK	MARSHALLING KIOSK
PA	PANTOGRAPH
PI	POST INSULATOR
SA	SURGE ARRESTER
TX	TRANSFORMER

TO BE VIEWED IN CONJUNCTION WITH LAYOUT DRAWING
WEST BURTON 2 LAYOUT.

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PRELIMINARY
NOT FOR SITE USE

2	PLANNING ISSUE - DESIGN CHANGE	TB	TB	LGOS	25.10.25
1	PLANNING ISSUE- LAYOUT CHANGE	TB	TB	LGOS	15.10.25
0	PLANNING ISSUE	TB	TB	LGOS	06.10.25
Rev	REVISION	Drawn	Design	Appd	Date



Project Title

COURTFARM 132/33/11kV SOLAR
PV

Title	Description	Status	Priority	Due Date	Assigned To	Created By	Last Modified
1	Project A	In Progress	High	2023-12-31	John Doe	John Doe	2023-12-28
2	Project B	On Hold	Medium	2024-01-15	Jane Smith	Jane Smith	2023-12-27
3	Project C	Planned	Low	2024-02-01	John Doe	John Doe	2023-12-26
4	Project D	Completed	Low	2023-12-15	Jane Smith	Jane Smith	2023-12-25
5	Project E	In Progress	Medium	2024-01-31	John Doe	John Doe	2023-12-24

COURTFARM 33/11KV CUSTOMER
SUBSTATION ELEVATION - FOR
PLANNING ONLY

Drawn	Designer	Checked	Date Approved
TB	TB	LGOS	25.10.25



Drawing No

Drawing No
COURTFARM 33/11KV ELEVATION REV2

Status	Scale	Rev
PRELIMINARY	NTS	2

N.T.S. IF PRINTED FROM PDF