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Updated: June 16, 2020

Hazelmead Community Energy

Battery Installation - Invitation to Tender



Project Background Hazelmead Community Energy (HMCE) has been set-up to deliver a solar PV microgrid for the Hazelmead Community Housing Scheme that comprises 54 properties built to AECB standards in Bridport, Dorset. The scheme has full planning and is being developed by Bridport Cohousing (<http://bridportcohousing.org.uk/>) and Bournemouth Churches Housing Association. This tender package covers the battery elements of the work and other packages are being tendered in parallel.

Tender Timelines The tender timelines are as follows:

- Tenders Out: 17th June 2020
- Tenders Back: 2nd July 2020

Hazelmead Development Timelines

- Finalising Main Contractor/ Funding – Sep 2020
- Expected Battery installation – March 2021

Other Details The selection of the successful contractor will be based on an objective assessment of the received quotes with a 40% weight given to cost, 20% to quality and 40% to confidence.

Please send the tender to damon@cepro.co.uk

General/background

- This tender is for delivery of a fully functional Battery Energy Storage System as part of a microgrid. The whole development is treated as a communal private grid and is designed accordingly.
- Initial design work has been undertaken to create the below specification and design.
- Ensure compliance with all CDM & HSSE & Building Regs & Appropriate Industry Standards
- Respondents MUST be accredited partner installers from their chosen battery system manufacturer

Specification of Battery Energy Storage System

- We require a system with minimum 500kW/1110kWh.
- You must complete the full list of work activities found in the manufacturers “Construction Checklist”
- Suitable GRP Controls cabinet - Novated supplier EnclosureTec
- Suitable G99 relay with integral battery meter - Novated supplier Macklins
- Equipped with revenue generation FFR controls cabinet - eg. A Limejump control panel
- Three phase DB cabinet for local power distribution - eg. Schneider Acti 9
- Battery system fully connected to the (out of scope) main distribution board
- Provision of G99 testing on site (DNO to witness) and compliance certificates and labels
- All online monitoring and metering connected and working properly
- All electrical elements required to pass the manufacturers commissioning process successfully

Out of scope or by others

- Provision of concrete pad/plinth appropriated specced and sized by others
- DNO formal Export connection offer/agreement by CEPRO
- Installation of the grid connection and Schneider main distribution board by others
- Site O+M manual by CEPRO
- G99 witnessing by WPD

Items requested in the quote

- A pricing spreadsheet has been provided. Please adhere to this format when responding.
- Please price on the basis that the installation would be carried out in March 2021
- Exclude the cost of any work to support the WPD grid application in your main installation price
- As necessary provide any supporting design information bearing in mind the specification.
- Provide details of any equipment you are specifying and warranties where this differs or is not provided by this specification
- Please provide details of your standard payment schedule e.g. deposit etc

Other/ Further Details

- It is expected that the contracting would be completed including initial deposit for battery purchase by October 2020.
- Your client will be Hazelmead Community Energy Limited (reg 11917573).

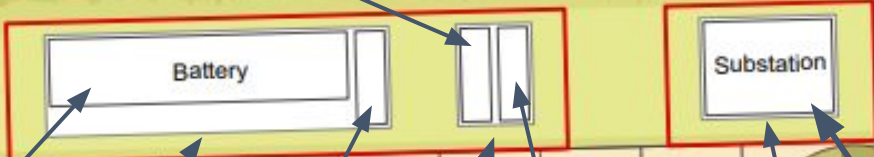
Glossary of terms

In relation to the WPD Connection Works Agreement and associated works for the Hazelmead Community Microgrid development

Microgrid cabinet
housing the low voltage distribution board,
housing the feeder connections to the Battery
and Private Wire Network

HMCE Lease Area
(fenced boundary)

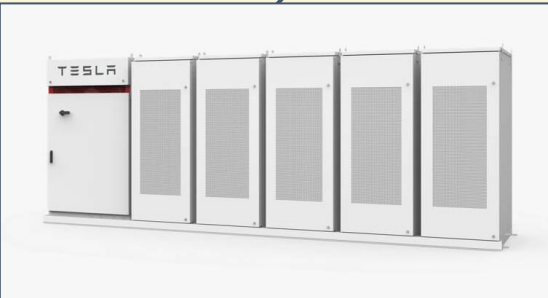
WPD Lease Area
(unfenced boundary)



Battery plinth
(8200 x 2425)

Microgrid plinth
(1800 x 2425)

Substation plinth
(3250 x 2425)

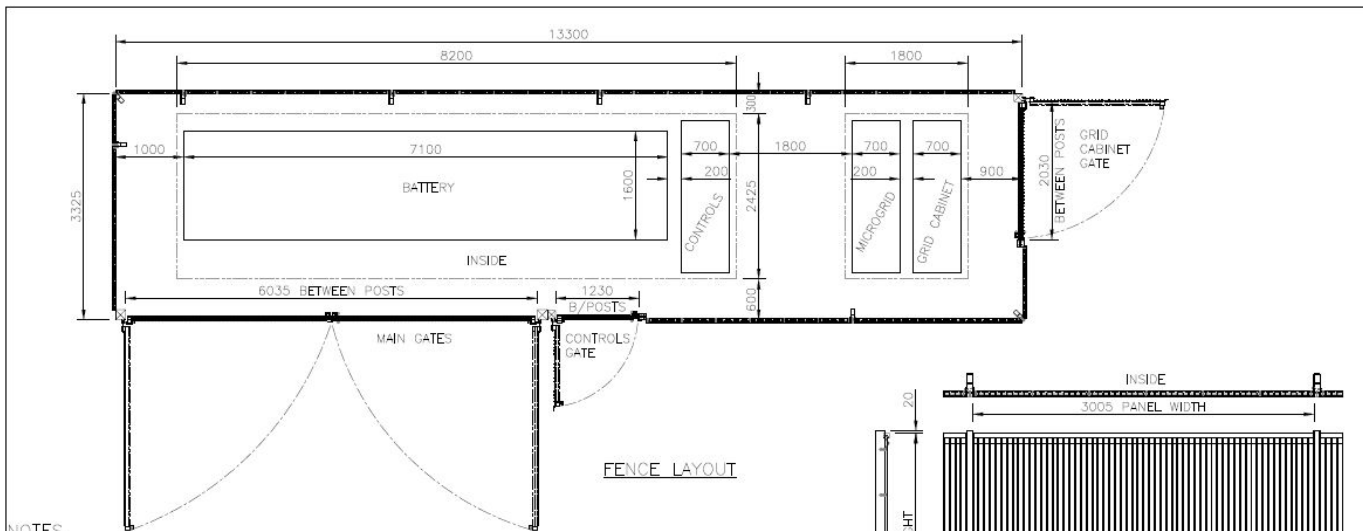


(Battery) Controls Cabinet
Housing the equipment required
for safely connecting generators
to distribution networks

Boundary Meter cabinet
(aka Grid Connection Cabinet,
aka DNO Cabinet, aka MCCB cabinet)
housing the low voltage MCCB board, housing the
Connection Point between the Private Wire Network
and the WPD Network



Battery enclosure fencing (out of scope of this contract)



FENCE LAYOUT

NOTES:

ALL DIMENSIONS ARE IN mm (UNO)
GAPS UNDER GATES & FENCING ARE NOMINAL DUE TO GROUND LEVELS.

MATERIALS - STEEL

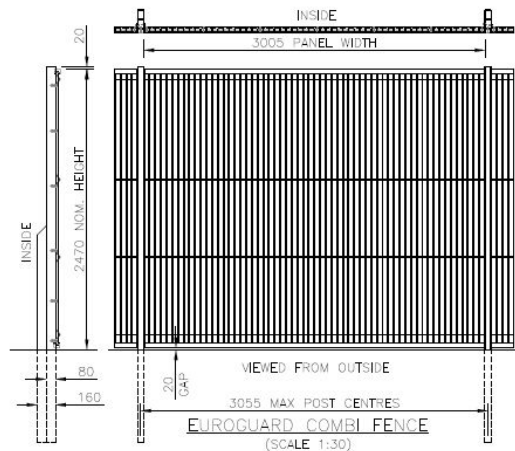
HANG POSTS: 120 x 120 SHS & 150 x 150 SHS
SLAM POST: 100 x 100 SHS
FENCE POST: 80 x 60 RHS
RAILS: 60 x 40 RHS
STILES: 60 x 60 SHS
MESH PANEL: #5 WIRING

MATERIALS - TIMBER

SLATS - 40 x 17 THICK PAR
GROOVED CAPPING - 45 x 51 THICK PAR
POST COVER STRIP - 35 x 44 THICK PAR

FINISH

CALVANISED TO BS EN ISO 1461
POWDER COATED: BLACK RAL 9005
TIMBER: JAKGURED TREATED



Jacksons Fencing
Stowting Common, Near Ashford, Kent, TN25 6BN
Telephone: 01233 750393
Fax: 01233 750403
www.jacksons-fencing.co.uk

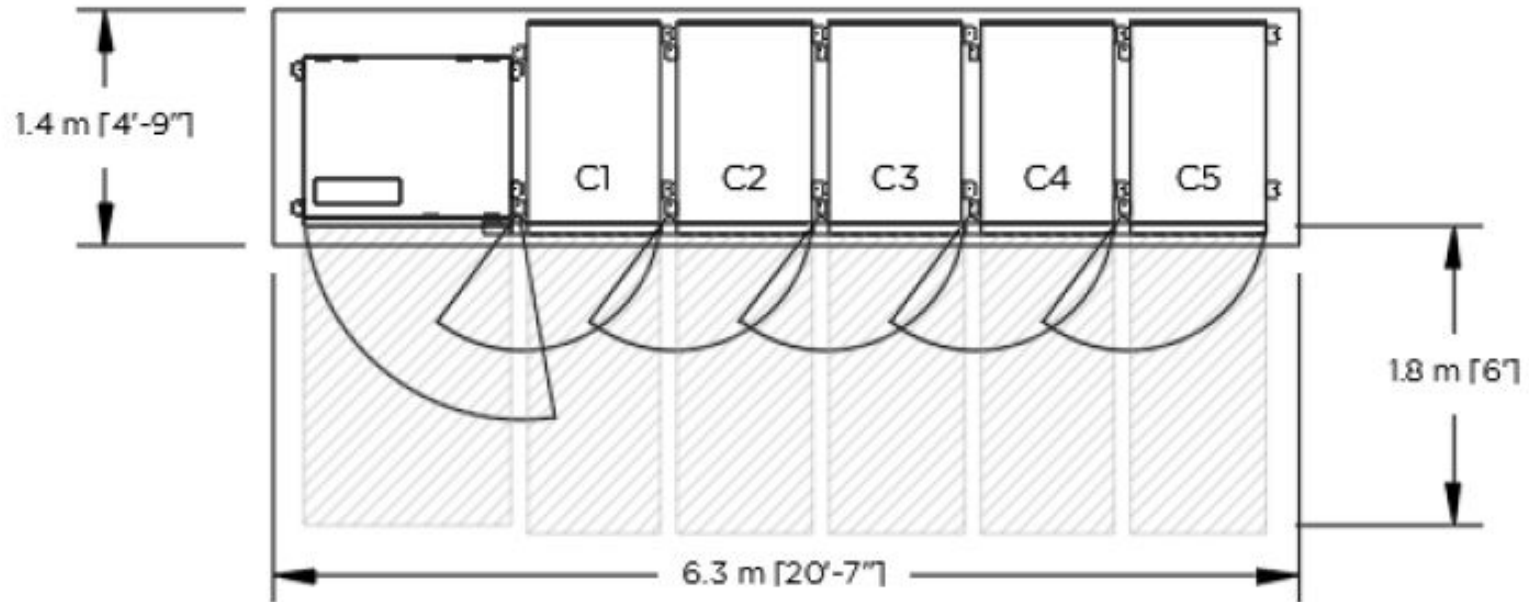
This Drawing Is The Property Of H.S. Jackson & Son (Fencing) Ltd. And May Not Be Copied Or Reproduced In Any Way Without Prior Written Permission.

DO NOT SCALE - IF IN DOUBT ASK

Drawn: WB	TITLE	
Date: 18/02/2020	BATTERY FENCE DETAILS	
Checked: WB	CUSTOMER	Drawing No.
Size: A3	CLEAN ENERGY PROSPECTOR UK	JF1005194
Scale: 1:50 U.O.S.	ACK No. 1995781 - 00 FEE	Sheet 1

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Example battery pack layout



Example project



Figure. Battery Controls Equipment

Here we see an example installation. Note the following differences to the Hazelmead spec:

1. This system is 100/170 kW/kWh
2. Fence arrangement differs
3. Plinth arrangement differs
4. Main DB is out of scope of this package

This project took 10 person days on site to install