CONSTRUCTION TRANSPORT MANAGEMENT PLAN

CTMP regarding Discharge of Condition 17 for the BESS Project located at Land south of Bridge Road North- Wrexham Industrial Estate:

Decision Notice P/2022/0057

Issue 1 Dated

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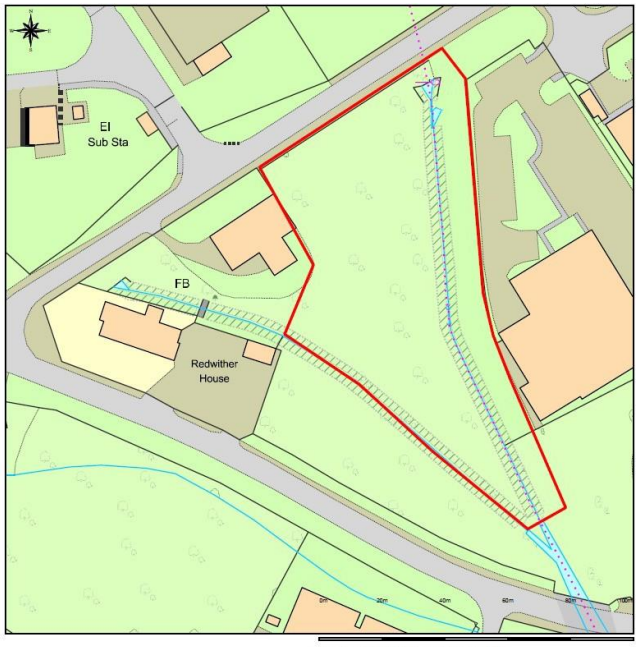
1.0 INTRODUCTION

1.1 Clean Battery Power Uk 1 Limited (CBPUK1) has prepared this Construction Transport Management Plan (CTMP) to accompany the Discharge of Planning Condition 17 relating to Planning Application P/2022/0057 for their proposed development of a battery energy storage plant, within the Wrexham Industrial Estate, Bridge Road North, Wrexham.

1.2 The CTMP clarifies the safe access route and transport route and the requirements for entry and exit to and from the proposed development site.

1.3 CBPUK1 has prepared this CTMP, in support of a planning application for a 10 MW (total installed capacity) battery energy storage facility on land adjoining Bridge Road North within Wrexham Industrial Estate, see Figure 1. The nearest National Grid reference (NGR) is approximately SJ381495 and nearest post code LL13 9RD.

Figure 1 Site location showing the red line boundary and land ownership



1.4 The CTMP provides details of the development proposal in the context of the site and its surroundings, the predicted construction traffic movements and analysis of the impact on the local highway network, details of the site access and the measures that would be taken to mitigate the development proposal during the construction and decommissioning of the development.

1.5 The CTMP includes the following information:

- Anticipated number of daily construction vehicle movement, i.e. HGV, cars, or vans visiting the site during the construction period.
- Details of the maximum number of vehicles that are expected to be onsite at any one time
- Details of maximum weight and length of any HGV expected to visit the site.
- Details and the use of the proposed warning signs during the construction phase on the approaches to and from the site.
- Confirmation of proposals for wheel-washing facilities and operational controls to ensure the servicing roads and highways are maintained free from mud and or debris.
- Confirmation of control processes to ensure that NO vehicles shall be parked on the surrounding public highways during or following completion of the construction works.

1.6 The CTMP is prepared for distribution to the appointed vendors and contractors and for the 'toolbox talks' that will be held regularly onsite to address the measures of access control to the site and to ensure the safeguarding of any additional road and footpath users.

1.7 The report has been prepared to provide information on managing traffic movements, controlling the emission of dust and dirt, provision of contact details and measures to protect users of the public roads and footpaths adjoining the site at Bridge Road North.

2.0 SITE AND SURROUNDINGS

2.0 The site can be accessed from Bridge Road North, Wrexham Industrial Estate. This CTMP highlights the proposed route for major deliveries and the proposed method of entry and exit from the site.

2.1 Timing of deliveries will be organised to avoid the peak rush hour periods.

2.2 Cars, vans and small lorries of up to 7 tonne will be permitted to enter the site by turning left or right off Bridge Road North.

2.3 Larger HGV vehicles and cranes arriving at the site will be instructed and directed to enter the site by turning right into the site entrance whilst heading northeast on Bridge Road North. These vehicles will also exit the site by turning right on exit and heading northeast on Bridge Road North. See Table A.

Table A – summary of site exit and entry requirement for all vehicles

Vehicle Description	Weight (T)	Direction of travel along Bridge Road North to access the site	Required manoeuvre to enter site	Reason
Car	n/A	SE	By turning left	Site entry
Car	n/A	SE	By turning left	Site exit
Van & small lorry	Up to 7 tonne	SE	By turning left	Site entry
Van & small lorry	Up to 7 tonne	SE	By turning left	Site exit
HGV(i)	Up to	NW	By turning	Site entry

	40 tonne		right	
HGV (i)	Up to 40 tonne	NW	By turning right	Site exit
Site Crane (i)	Upto max 160 tonne cranbe capacity	NW	By turning right	Site entry
Site Crane (i)	Upto max 160 tonne cranbe capacity	NW	By turning right	Site exit

2.4 Please refer to the Drawing 315341 – RC007 Swept Path Analysis for 160 Tonne Crane entry and exit and Drawing 315341-RC008 Swept Path Analysis for HGV articulated vehicle. (Screen shots of each shown on following page).

2.5 In addition, Drawing 315341- RC009 Swept Path Analysis (7.5T LGV Vehicle-Operational illustrates the access and egress movements for smaller light good vehicles (LGVs) during the operational phase of the development. This analysis demonstrates that standard 7.5 tonne delivery vehicles can safely enter and exit the site using the approved point on Bridge Road North without encroaching into opposite traffic lanes. The drawing confirms that adequate turning radial and visibility are maintained under normal operating conditions, complementing the construction-phase analyses on Drawings RC007 and RC008.

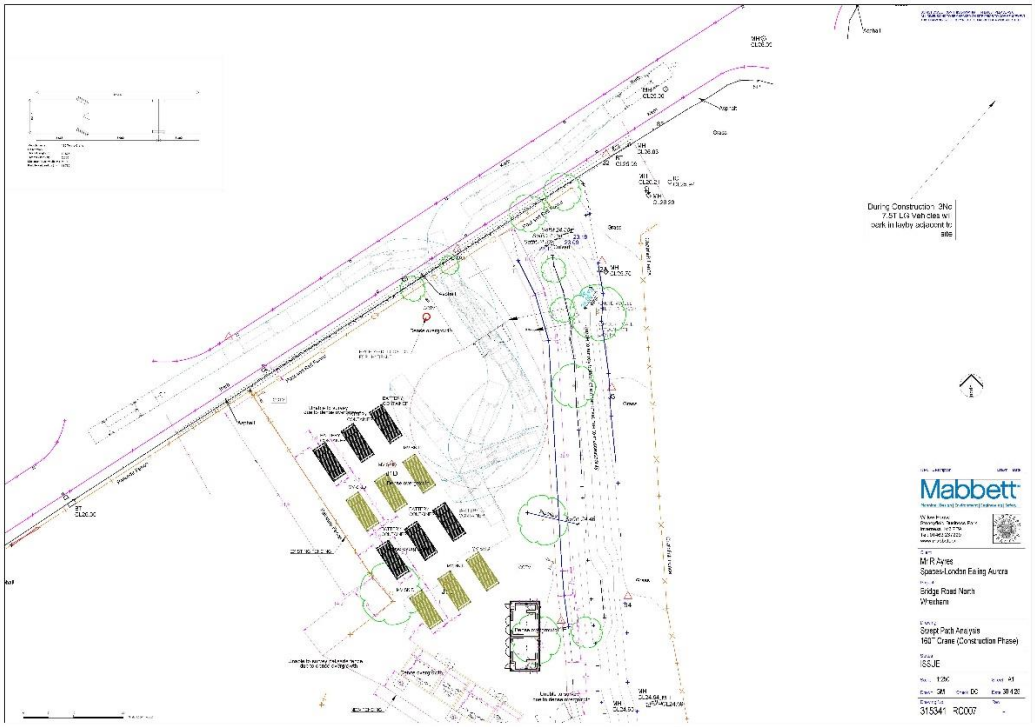


Figure 2.0-1:Drawing reference: RC007 Swept Path Analysis for 160 Tonne Crane entry and exit

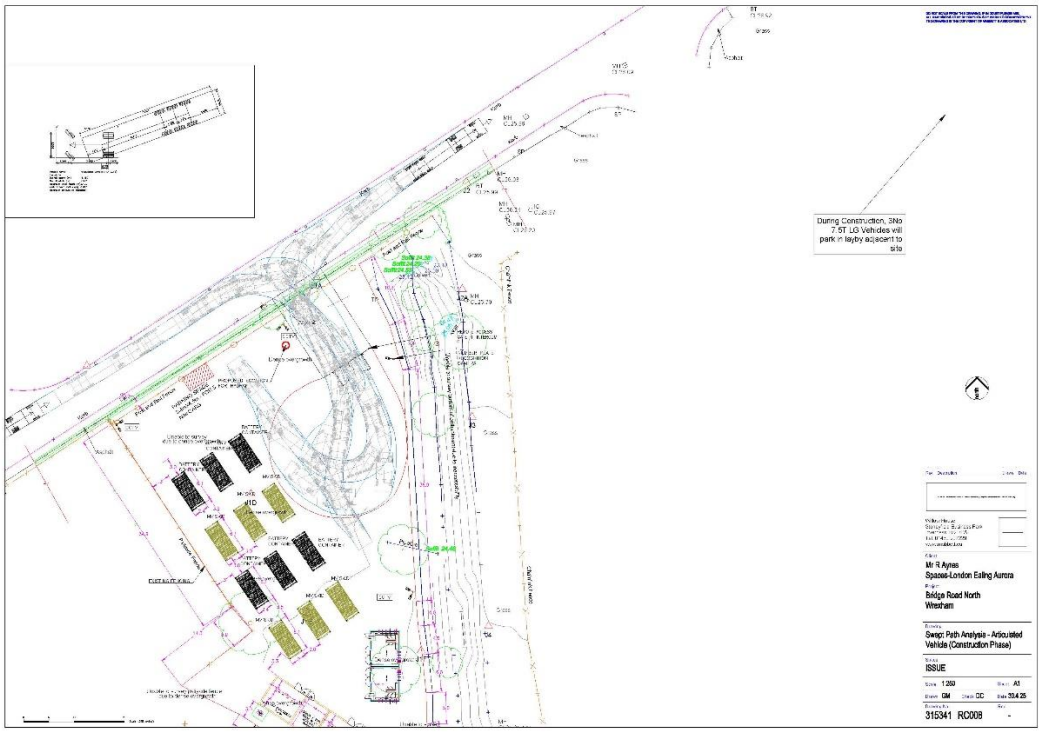


Figure 2.0-2: Drawing reference RC008: Swept Path Analysis for HGV articulated vehicle



Figure 2.0-3:Drawing reference: RC009 Swept Path Analysis (7.5T LGV Vehicle- Operational illustrates the access and egress movements for smaller light good vehicles (LGVs) during the operational phase of the development.

2.6 General Site Access Details from surrounding road network

2.6.1 Whether travelling from the north, south, east or west the route to the site will follow the instructions and directions to the A534. At the A534 Hugmore Roundabout the traffic will be instructed to take the south exit marked Wrexham Industrial Estate:

- Heading West on A534

Note (i) – For HGV 40 tonnes transport and the 160 tonne crane the swept path approaching from both directions during construction is not possible. As the Swept Path Analysis is too restrictive. We have therefor provided Table A to this CTMP stating the approach and exit from the site to ensure there is no obstruction within the public road.



- Heading East on A534



2.6.2 The A534 is accessible from all regional trunk roads and the major network of motorways with the area. This proposed route to the site is suitable for all the necessary forms of transport.

2.6.3 On heading south from the Hugmore roundabout on Industrial Estate Road the proposal is to continue to the first round about and exit using the 2nd exit onto Ash Road North and then continue south to the left fork and take Abbey Road.



Transport will continue on Abbey Road heading south. Abbey Road eventually changes to Bridge Road North and after approximately 1.5 kms the access to the proposed site will be on the left.

2.6.4 For specifically HGV articulated lorries and the 160 tonne crane arriving at the site. They will be instructed to enter the site in accordance with Table A and the details shown from the Swept path Analysis drawings RC 007 and RC008.

2.6.5 Only one HGV will be permitted onsite at any one time.

2.6.6 All site access will be controlled via a Site Entrance Operative/Banks person and during the site working hours the gates to the site will be kept permanently open.



Indication of proposed location of site entrance

2.7 General Site Access Details

2.7.1 Access to the site both during the construction and operational phase will be controlled by security gates and palisade/palladin fencing 2.4 metres high.

2.7.2 During the construction phase the fencing to the eastern boundary will be temporary Heras Fencing. This will provide for increase in site area for the construction works whilst ensuring safety of debris or disturbance the the bank and river.

2.7.3 During each working day of the site construction the gates will be open during all working hours and manned by the (Site security/ EPC contractor).

2.7.4 During operation the sites will be managed by remote access control and authorised personnel issued a site access key.

2.7.5 All the selected site routes are well-maintained carriageways with sufficient width to enable safe passage of all of the necessary transport during the construction and operational phase.

2.7.6 The site will be directly accessed from the public road, the site entrance details designed to meet the appropriate highway standards and as agreed with the Highways Engineer. See drawings 515341 RC002 Rev 4 and 315342 RC006 Rev 1

2.7.7 Site traffic will not be permitted to park alongside the site on the public road or any surrounding roads.

2.7.8 The Highways Entrance works will be undertaken following a Section 184 application

2.7.9 Road signage and warning signs will be provided as detailed in this CTMP

2.7.10 To avoid restriction on the public highway transport entering the site will be controlled in accordance with the following processes.

- All construction personnel vehicles will be parked within the boundary of the site. Any overspill parking for site personnel will not be permitted on the pubic highway, these vehicles will be parked remotely, and the personnel conveyed to site by

mini-van/mini-bus. However, the number of site personal is

not expected to exceed 5 or 6 operatives.

- Parking of over spill parking will be permitted on the layby to the east of the site which is south of Bridge Road North.
- As above longer-term site and contract personnel, where practical will be conveyed to site by mini-van or mini-bus from a central collection/holding point. This and the previous regulation will significantly control the numbers of vehicles parked within the boundary of the site and avoid unmanageable numbers of construction staff vehicles within the site.
- Accounting for the above measures transport to and from the site and managing the site parking requirements is not considered to be a concern to surrounding road users. The site will also engage a full-time site access operative to ensure and control the implementation of the above transport regime.

2.7.11 During the operational phase of the project the access to the site by any vehicle will, on average, be less than two visits per month. Because the site and its access will be remotely monitored and controlled.

2.8 The operational access to the site will be controlled and only authorised vehicles will be granted access to the site. There is no public access.

2.9 During the construction phase on approaching the site entrance the 'site access control operative' will manage the parking, offloading and exit of the vehicles to maintain free passage on the public roads and avoid any conflict or traffic congestion either within the site or on the public highway.

2.10 Site delivery vehicles will only be permitted onto site for offloading and then released. Entry of the delivery vehicles to the site will be managed through the site access operative and only authorised vehicles will access the site for offloading, other deliveries or vehicles will be held at the agreed 'holding point' pending their permission to enter the industrial estate road network.

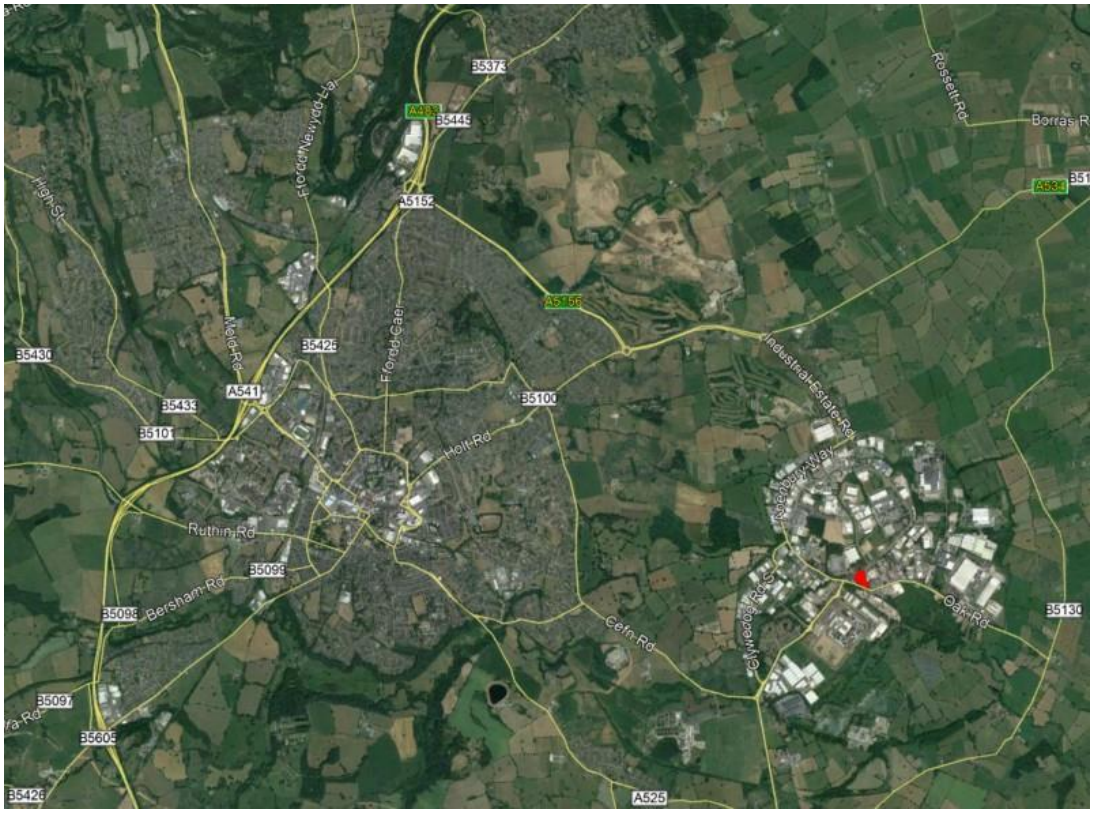
2.11 The visibility of vehicles entering and exiting the development is good.

3.0 HIGHWAY NETWORK

3.1 The Highway Network in the region consists of a number of regional trunk roads that lead to and from the motorway system, M6 M53, M57, M62 and M56. The A534 at the Hugmore Roundabout is the principal junction where this CTMP will become effective in the control of traffic entering the proposed site

3.2 The Hugmore Roundabout is approximately 2 kms south of the proposed site. 23 kms south of the M56 and 40KMS west of the M6. The site is also approximately 14 kms south of the A55.

3.3 The route identified for access to the site has no weight restrictions and is suitable for use by heavy goods vehicles (HGV's).



The site location is coloured red within the above map.

4.0 DEVELOPMENT PROPOSALS

4.1 The applicant has received planning consent reference P/2022/0057 for a battery energy storage facility. The proposal consists of a ~10 MW battery energy storage equipment and associated equipment, much of the equipment is assembled offsite and delivered in containers. This will reduce the number of large delivery items to the site and reduced the installation duration and numbers of site personnel.

The site will be surrounded with a metal palisade/palladin fence all being delivered by lorry to the site.

4.2 All materials and deliveries will be offloaded directly within the construction site and managed by the site access operative. Deliveries will be coordinated daily to avoid any unexpected or unplanned delivery/offloading activities.

4.3 Parking for a maximum of 5 cars/vans will be provided in the site area for all contractors and for the operations personnel during the operational phase. No parking will 'over-spill' to public roads. Any additional parking requirements will be provided for remote from the site. The area designated for this facility is shown on drawing

4.4 The construction site is large enough to accommodate a minimum of one HGV's as required for unloading facility. Delivery drivers would be instructed to call the site prior to arrival to obtain clearance to deliver their load and enter the approach roads from the Hugmore Roundabout. Site contact numbers will be provided to all contractors and key suppliers as part of their site induction.

Lorries will enter the site immediately on arrival and exit once they have been unloaded.

5.0 PROPOSED ACCESS ARRANGEMENTS

5.1 Access to the site for deliveries and staff would be from the A534>Hugmore Roundabout>Industrial State Road> Abbey Road> Bridge Road North and entry to the site.

5.2 The existing road systems are adequate to accommodate the proposed construction traffic. There is sufficient room for two vehicles to pass within all of these roads no significant additional congestion is expected as a result of the construction traffic.

5.3 The aspect to control incoming traffic to the site is to avoid the normal commuter times and provide an access control for deliveries to telephone the site for permission to enter the site access road from the Hugmore Roundabout. This will ensure that access to the site is clear, the site is ready to accept the delivery and site and surrounding roads can be cleared of construction traffic as soon as practicable. In this managed way all deliveries can be accommodated within the site boundary without stacking up on any of the local road system.

5.4 The receipt of the main plant deliveries will be managed by the site access operative and banksmen to aid the access into the site access.

5.5 The site will benefit from new access gates which will be used to provide access to the secure compound of the battery energy storage plant.

5.6 As the construction area will be prepared for the construction and operational activity with a compacted stone area it is not proposed to install a proprietary wheel washing facility – however prior to exiting the site the wheels of all lorries will be inspected and washed with a pressure hose should cleaning be required.

5.7 The construction of the battery energy storage plant will not require major earthworks and hence removal of excavated materials from the site is not expected to be significant.

5.8 A road sweeper would be hired when needed to sweep the surrounding road area between the site construction area and the junction with Coed Aben Road and Redwhither Road if weather conditions require additional measures to be taken to keep the roads clear of mud and other debris.

5.9 The construction material for the battery energy storage plant will be off-loaded by an all-terrain forklift truck or crane (as required) and stored in the construction area.

5.10 The observations from the existing usage to surrounding sites demonstrates that HGV's can access and egress the route to the site in a satisfactory manner. The observations of existing HGVs using the surrounding roads shows that these local roads are suitable for the proposed vehicles that will be used in transporting materials to the site.

5.11 Transport access provision will require controls to mitigate the use of the access routes during peak commute times.

6.0 CONSTRUCTION TRAFFIC MOVEMENTS

6.1 The construction of the battery energy storage plant will be carried out by experienced contractors in three stages over a 26-week period. The following key Stage Activity Timeline is shown in the table below: Table 6.1 Outline Construction Activities

Stage	Activity	Timeline
Stage 1	Site Set Up and Establishment • Establish site security • Erect site fencing • Initiate enabling works • Delivery of plant and equipment • Establish any temporary site amenity and construction requirements	Week 4-8
Stage 2	BESS plant Installation • Commence preparation of concrete pads for installation of battery storage plant and associated equipment • Excavate areas for buried services, pipes and cables, install services and backfill • Install battery equipment • Install electrical equipment • Install cabling and commence terminations • Install DNO substations and	Week 6-18

	cabling	
Stage 3	Site Clearance • Commissioning + testing • G99 • Removal of offices • Removal of temporary facilities • Restoration of compound areas • Permanent fencing • Initiate operational works	Week 14-26

6.2 The working hours on the site would be between 08:00 and 18:00 Monday to Friday and between 08:00 and 13:00 hours on Saturdays, no construction working will be undertaken on Bank Holidays. Hours may be adjusted to reflect the requirements of any Planning Decision Notice

6.3 During the construction stage there will be a peak of approximately 10 site personnel.

6.4 It has been assumed that operatives working on the site will stay in the locality and that there will be an average occupancy rate of 2+ persons per vehicle. Site staff vehicles will consist of cars, light vans or small commercial vehicles. The contractor will also operate a mini-bus service for site operatives thereby reducing the maximum number of site vehicles.

6.5 Staff will generally arrive in the morning and leave in the evening, with well over 50% arriving at site via the provided operative minibus/workers van. However, there will inevitably be some trips during the day to collect tools or visit local shops/banks etc.

6.6 During the site preparation it has been estimated that 12 HGV round trips will be required to deliver the battery storage containers and associated equipment, and 8 round trips for the PCS/Transformer skids and 12 further round trips for the balance of equipment and crane requirements for off-loading. Craneage will be coordinated to reduce the craneage requirements. It is expected that maximum HGV site deliveries will be 5 in any one day, but with only one permitted onsite at anyone time.

6.7 When compared with the existing traffic flows in the vicinity of the site, the additional traffic generated by the construction traffic would represent a minimal daily increase. During Stage 2 there will be no discernible impact on the local highway network particularly with the proposed measures to arrange for limiting deliveries to non- commuting periods and outside of the busiest transport periods for the local roads.

6.8 During the life of the generation project the only traffic movements will be from routine maintenance and repair vehicles which would amount to no more on average than two per month. There would be no staff based on the site itself.

6.9 When the site reaches the end of its design life the site will either be re-

powered or decommissioned and removed. The operation to decommission the equipment will be the reverse of the delivery and construction process.

6.10 On the basis of the identified traffic analysis required for delivery of materials during the construction period and the arrangements proposed, along with the short duration of the works, it is considered that there will be no residual impact on the local highway network and that the existing roads can accommodate the predicted peak and daily traffic flows.

7 MITIGATION MEASURES

7.1 Temporary signage will be provided on the Bridge Road North and the roads leading to it warning traffic of the route and on Bridge Road North of the forthcoming entrance to the construction site. An additional temporary sign will be placed to give drivers delivering to the site information on the location of the site compound at the entrance to the site.

7.2 A temporary sign will also be placed opposite the site access instructing exiting vehicles to turn left and head towards the junction with Coed Aben Road and Redwhither Road.

7.3 The working area needed to construct the battery energy storage project will be fully fenced and secured to protect the general public. The access into the site is not open to the public and hence there should be no public access to the area of the site.

7.4 The main contractor will be issued with a copy of the CTMP and he will be expected to ensure that construction vehicles adhere to the route to the site from the A534 and to maintain the temporary signage on all approach roads.

7.5 The requirement for providing a site parking area for temporary parking of site-based vehicles ai shown in the designated area on the following CTMP plan. The area of land provided is for 5 parking bays 2.4 m by 4.8 m. See drg RC08 Car parking bays.

7.6 Contact details of the site manager and an emergency telephone number will be provided to the Planning Authority and the Highway Authority before work is commenced.

7.7 The following road signs will be deployed by the contractor. They will be deployed prior to any works commencing onsite and maintained throughout the site work. Additional signs may be provided, subject to agreement or requirement.

The signs will be Bilingual in both English and Welsh and each will have the signage shown in letters that are 125 mm high on red back ground with whist lettering.

Both signs will be Bilingual with the Welsh lettering shown above the English letter warning

Sign A



Size - 600x450 high mounted on metal A frame.
Sign to be located on each side of carriageway within 200 metres and 100 metres of the site entrance on both side of the carriage way along Bridge Road North.
Sign will also show in Welsh

RHYBUDD MYNEDFA SAFLE in identical lettering above the English lettering

Sign B



Size – 1050 W x 750 high mounted on metal A frame.
Sign to be located on each side of carriageway within 50 metres site entrance A and B.

Sign will also show in Welsh

LORIAUN TROI in identical lettering above the English lettering

4 No required 2 each side of carriageway

8 CONCLUSIONS

8.1 The development proposal for the battery energy storage plant will require the delivery of construction materials over a 26-week period and the purpose of this CTMP is to ensure that the impact of construction traffic is kept to a minimum.

8.2. The site compound will be laid out to allow delivery vehicles to enter and leave the site safely, where vehicles reverse, they will only do so under the supervision of a banksman. Drivers would be instructed to call the site to give their expected time of arrival and to get clearance to deliver their load. Banksmen would be employed direct access into the site.

8.3 The visibility splays for vehicles using the existing roads are adequate and are currently well maintained.

8.4 The designated route for construction traffic would be from the A534.

8.5 The construction period would be an estimated 26 weeks and split into three stages. Stage 1 would be the site set-up, Stage 2 would be the main construction of the plant and equipment. Stage 3 would be the restoration of the site and removal of the temporary works.

8.6 The maximum number of construction HGV vehicle movements would be an estimated 5 vehicles per day for a maximum two or three days.

8.7 Temporary signage will be provided on all approach roads and banksmen will be employed to control construction traffic accessing the site.

8.8 Measures will be taken to ensure that approach roads are kept free of mud and dirt, and dust suppression measures will be used as necessary.

8.9 The main contractor will be supplied with a copy of the CTMP and would be expected to fully implement the requirements to safely manage construction traffic movements. Details of the site manager and an emergency telephone number will be provided prior to commencing work on the site.

For general enquiries please contact:

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