



LEGACY BATTERY STORAGE FACILITY

Construction Environmental Management Plan

June 2023



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1.0 INTRODUCTION

1.1 Background

- 1.1.1 This Construction Environmental Management Plan (CEMP) has been prepared to support an application for a revised Battery Storage Facility (BSF) and ancillary development north of and adjacent to National Grid's Legacy substation off the B5426 (Bronwylfa Road), Talwrn, Wrexham. The application reference is P/2023/01755.
- 1.1.2 Application P/2023/01755 is a revision of a consented BSF scheme at the same location (under application P/2021/0441, granted 5th July 2021). The revised scheme includes some minor additional areas which extend into the adjacent substation hardstanding. As such, the revised scheme would have no greater impact than the consented BSF and the construction practices would be the same.
- 1.1.3 A CEMP was submitted and discharged for condition 7 of the consented BSF (under ref P/2022/0384). The CEMP has now been updated to reflect the revised scheme, however the measures previously set out (and as previously approved), including those in the appendices, are unchanged.

1.2 Site Location

- 1.2.1 The Site is located to the north and adjacent to National Grid's Substation off the B5426 (Bronwylfa Road), Talwrn, Wrexham. The Site comprises an area of grass / scrub land to the north of the existing Substation. The location of the Site is illustrated on Figure 1 below.



Figure 1: Site Location Plan (outlined in red)

2.0 CONSTRUCTION PROGRAM

2.1 Phasing

- 2.1.1 The construction program for the Legacy BSF is anticipated to take circa 30 weeks. This will be carried out over three phases:

Phase 1: Enabling Works. Initial site clearance including translocation of orchids from within the site boundary to receptor areas, laying of permeable geotechnical membrane, such as Terram. The permeable hard surfacing and access track would then be built up on top of this membrane using hardcore aggregates;

Phase 2: Main Construction Phase. Laying of support foundations and installation of the containers, which are pre-fabricated off-site and delivered as complete units; installation of the energy related components (e.g. transformers, inverters, switchgear etc), which would also arrive at the Site pre-fabricated; and

Phase 3: Finishing Phase. Installation of fencing, completion of all electrical engineering connections and remedial landscaping works.

2.2 Construction Site Access Arrangements

- 2.2.1 Construction vehicle access to the development site shall be gained via the existing National Grid Substation access road and site entrance off Bronwylfa Road to the south. Vehicles shall access the development site to the north of the Substation via the internal roads through the substation. Maintenance vehicles during the site operational phase shall also use the same access route.

2.3 Construction Signage

- 2.3.1 All construction vehicle drivers shall be made aware of the proposed route they are required to take to the site.
- 2.3.2 Appropriate signage shall be erected to clearly direct drivers to the site entrance. The signs will also make other road users aware of the construction traffic site entrance. All signs associated with the site shall be kept clean, legible, and free from overgrown vegetation.
- 2.3.3 It is not anticipated that further temporary signage or lights will need to be erected, other than site entry signage

2.4 Construction Period and Delivery Hours

- 2.4.1 As mentioned above, the entire construction period for the development is anticipated to take approximately 30 weeks to complete. Following this, there will be a short period of occasional trips as the facility transitions into the operational phase.
- 2.4.2 Whilst no local highway capacity concerns are anticipated, to minimise disruption, construction traffic shall be advised to access the site outside of standard peak hours of 08:00-09:00 and 16:00-18:00 Monday to Friday. No deliveries are anticipated to take place on Sundays.
- 2.4.3 During site operations, very limited traffic shall be generated by the Site. This shall be limited to visits by maintenance engineers using a van. There may be occasions where more major maintenance is required that might require a crane to be brought to the Site. However, this would be an infrequent event. As such the operational phase of the project shall not generate any significant traffic impacts.

2.5 Construction Hours

- 2.5.1 Construction operations would generally be limited to the hours of 08:00 - 18:00 Monday to Friday and between the hours of 08:00 - 13:00 on Saturday. No construction activities would be undertaken outside of these hours without prior agreement from WCBC.

3.0 ENVIRONMENTAL CONTROL MEASURES AND WASTE MANAGEMENT

3.1 Introduction

3.1.1 This section of the CEMP sets out the minimum requirements to be incorporated into the construction activities on the Site to ensure that no detrimental impacts occur to the local environment.

3.1.2 The following sub-sections outline the specific processes and methods to be implemented on site to ensure that any potential pollutant / environmental impacts are identified, and sufficient mitigation measures are put in place to reduce environmental impacts associated with the works.

3.2 Biosecurity and Invasive Non-native Species Management Plan

3.2.1 A Biosecurity and Invasive Non-native Species Management Plan is provided at Appendix A to this CEMP and outlines the proposed approach to biosecurity and non-invasive species during the construction phase of the proposed development at the Site. All site operatives and staff shall adhere to the measures set out in the plan.

3.3 Risk Assessment of Potentially Damaging Construction Activities

3.3.1 Construction activities associated with the erection of the development will be limited, both in the extent of time taken and their intensity on site. The BESS containers and other key site components will be fabricated off-site and delivered to the site via low-loading vehicles where they will be positioned and secured in place on concrete supports.

3.3.2 The period of greatest intensity in site construction activity is anticipated to occur during the enabling works (site clearance / levelling etc). However, these works will be limited in duration and not require significant ground intrusions. It is not anticipated that these activities will cause any environmental impacts outside of the Site. Whilst the removal of the existing grassland and vegetation will be permanent (at least, for the duration of the battery storage facility operation until such time as site restoration is required), this loss is unavoidable and required to deliver the proposed development.

3.3.3 Notwithstanding this, all key construction activities shall be subject to risk assessments, to be undertaken by trained staff following an approved procedure which will:

- Identify the significant environmental and Health and Safety impacts that can be anticipated;
 - Assess the risks from these impacts;
 - Identify the control measures to be taken and re-escalate the risk; and
 - Report where an inappropriate level of residual risk is identified so that action can be taken through design changes, re-scheduling of work or alternative methods of working to reduce the risk to an acceptable level.
- 3.3.4 The associated construction activities with potential environmental impacts have been identified and an Environmental Risk Assessment has been carried out for them. This Risk Assessment is provided at Appendix B to this CEMP and the management controls and mitigation measures set out within it shall be followed for the respective site activities.
- 3.3.5 Notwithstanding this, in all construction activities, best practice measures shall be employed to avoid any detrimental impacts to the environment, as far as reasonably possible.

3.4 Pollution Prevention Measures and Measures to Avoid / Reduce Environmental Impacts During Construction

- 3.4.1 The following sub-sections seek to outline the specific processes and methods to be implemented on the Site during the construction period to ensure that any potential pollutant / environmental impacts are identified, and sufficient mitigation measures are put in place to reduce environmental impacts associated with the works.

Protection of Water Resources

- 3.4.2 There are no water bodies or pathways on or immediately adjacent to the site. The water environments relative to the Site are therefore primarily concerned with surface and groundwaters.
- 3.4.3 Rainfall and associated surface water run-off during construction works can mobilise and transport pollutants such as sediments, oils, chemicals and other building materials into the water environment, causing harm to plants and animals. Pollution from sediment and other pollutants can come from a number of sources on construction site, these include:
- Run-off from exposed ground and material stockpiles
 - Run-off from roads

- Wheel washing areas

3.4.4 Due to the relatively short construction period (circa 30 weeks) and the low intensity of construction activities anticipated on the Site (due to most components being fabricated offsite), the opportunity for pollutants to enter the water environment will be limited.

3.4.5 Furthermore, it is not anticipated that any significant quantities of potentially polluting materials will be stored / used on site during the construction phase.

3.4.6 Nevertheless, good practice guidance measures are to be taken during the construction phase to ensure that potential pollutant pathways are avoided and that resultant negative impacts are not felt in the local water environment. Further measures to achieve this will be:

- Wheel washing facilities will be suitably located to control the spread of potential pollutants picked up.
- Visual inspections of potential pollutant pathways into the water environment will be carried out by the site Management Team over the course of the construction period.
- Washing out concrete mixers / plant etc will be undertaken using a controlled washout system which can remove suspended solids and neutralise the pH. This will provide treatment of the water to ensure that the Ph has been corrected and all fine particles are removed.
- Stockpiled material will be stored away from drainage systems to avoid run-off into such locations.
- Any and all hazardous substances will be stored within impermeable, bunded areas/containers, to remove risk of migration to groundwater sources.

3.4.7 These proposed measures will assist in avoiding or minimising the potential for contaminants and suspended solids to migrate to surface and groundwaters and protect water quality of any local systems and the ecosystems which they support.

Waste Management

3.4.8 Surplus or waste materials may arise from construction activities on the Site. Whilst this is not anticipated to be significant for the development, the following measures will be implemented throughout the construction phase where necessary:

- Use of an approved mechanical road sweeper to clean the highways of mud or debris that is deposited by site vehicles within the vicinity of the Site. The sweeper will be available whenever required and will be properly used and maintained.
- Provision of adequate sheeting of vehicles carrying waste materials.
- Measures to ensure mud and debris is not swept into gullies by the road sweeper.

3.4.9 The removal / disposal of any waste products from the Site shall be minimised by recycling excess materials wherever possible.

Dust

3.4.10 The generation of dust outside of the Site boundary is a potential source of statutory nuisance and can lead to complaints being received. Dust can also have an impact on human health and local ecology.

3.4.11 Good environmental practices shall be deployed to control dust emissions and mitigate against any nuisance problems arising. This includes practices such as dampening access roads and areas within the site to reduce dust and particulates becoming air bound.

Noise

3.4.12 Like dust, the generation of noise beyond the site boundary is a potential source of statutory nuisance and can lead to complaints. Such complaints, if upheld, can lead to legal action, which causes resultant delays and costs to the project. A basic element in the mitigation of nuisance due to noise is adherence to acceptable working hours. All works shall be undertaken in compliance with the working hours stated within this document.

3.4.13 Should work be required outside of these hours prior permission shall be sought from the waste planning authority.

Lighting

3.4.14 It will be necessary, particularly during darker months, to light the construction site and there is the potential for poorly aimed or controlled lighting to cause environmental pollution.

- 3.4.15 All lighting on site during the construction period will be kept to a minimum (whilst ensuring safety of workers is achieved / security of site). Lighting installed on site during construction will be downward facing to avoid excess spill into the surrounding environment.

3.5 Habitat Protection Measures

3.5.1 Reasonable Avoidance Measures

- 3.5.2 The Site sits within a Local Wildlife Site and contains species rich turf, which includes rare orchid species (identified through the Ecology Assessment for the development). The Reasonable Avoidance Measures (RAMs) set out under Appendix C to this CEMP shall be employed throughout the construction of the development to ensure no harm comes to these habitats, or the species which rely on them. These measures include the translocation of species rich turfs to suitable areas, for example, reinstate ground temporarily affected during construction or add to areas of low diversity within the LWS.

- 3.5.3 A project ecologist is to be engaged prior to construction works being undertaken to identify and advise on translocation methods.

Great Crested Newt Working Method Statement

- 3.5.4 Suitable terrestrial habitat is present within and around the Site to support great crested newts (GCN). The RAMs at Appendix C do not cover works that could impact great crested newt *Triturus cristatus* which must be undertaken under a development licence granted by Natural Resources Wales (NRW). On receipt of the licence the working method statement will be made available for all site operatives.

Tree Protection

- 3.5.5 As per the prohibition measures set out in the Arboricultural Method Statement supporting the proposed development, no access shall be permitted to onsite workers, or storage of materials, equipment, debris etc. within the tree protected fenced areas of the site.
- 3.5.6 All protective measures shall be installed immediately following the completion of any tree works in accordance with the Tree Protection Plan. These measures shall be inspected by a suitably qualified arboriculturist prior to the commencement of works.

- 3.5.7 If the protective measures become damaged or there is any accident or emergencies involving trees, these areas are to be cordoned off immediately with high visibility plastic mesh fencing. The site manager is to photograph and document the damage and inform the project arboriculturist immediately after the incident and all work within in this area is to cease until the project arboriculturist has made a visit to the site. Any and all damaged sections of protective measures shall be replaced within 48 hours of the initial incident.
- 3.5.8 The site boundary measures are to be installed and retained for the duration of the development. If for any reason the proposed boundary measures are not to be used, protective barrier fencing is to be installed along the line of the boundaries and is only to be removed upon the written permission of the project arboriculturist or LPA tree officer upon the completion of the development.

Timing of Works

- 3.5.9 There is potential for breeding birds present in the local vicinity of the Site to be affected by the construction of the development. As such, some RAMs shall require specific timings of construction works to ensure impacts on the environment are reduced as far as practicably possible.
- 3.5.10 All site clearance works or any vegetation removal shall be undertaken outside of the bird breeding season (1st March – 31st August inclusive). If, for any reason, it is necessary for construction works to commence during this period, suitable nesting habitats on or adjacent to the site shall be hand-searched by a suitably experienced ecologist prior to the commencement of works. Only when the ecologist is satisfied that no offence will occur under the legislation shall works be permitted to proceed.
- 3.5.11 A pre-construction badger survey shall be completed by a suitably qualified ecologist immediately prior to the commencement of development. If results identify a new badger sett, a mitigation strategy shall be developed before any construction works take place.
- 3.5.12 Prior to construction of any kind, protective measures in accordance with the approved tree protection plan shall be implemented.
- 3.5.13 If at any time pruning works are required other than those previously approved, permission must be sought from the LPA tree officer and once permission is granted they are to be carried out by a suitably qualified person in accordance with BS3998:2010 Tree work – Recommendations.

4.0 ENFORCEMENT AND COMPLAINTS PROCEDURE

4.1 Enforcement

- 4.1.1 The site manager will ensure that the installation team and other contractors and operatives are informed of the measures and procedures set out in the CEMP. The site manager will be responsible for upholding the requirements of the CEMP and ensuring complete compliance with the CEMP from all site contractors and operatives.

4.2 Complaints Procedure

- 4.2.1 It is important that members of the public or interested parties are able to make valid complaints about the construction works. Such complaints can provide a valuable feedback mechanism which could help reduce potential impacts on sensitive features and also allow the construction techniques to be refined and improved.
- 4.2.2 Any complaints made by members of the public regarding construction activities will be reported in the first instance to the site management to ensure emergency corrective actions are undertaken if required.

Appendix A: Biosecurity and Invasive Non-native Species Management Plan

Introduction

1. This Biosecurity and Invasive Non-native Species Management Plan outlines the proposed approach to biosecurity and non-invasive species during the construction phase of the proposed development at the Site.
2. Biosecurity relates to the risk of introducing or spreading (either accidentally or deliberately) the spread of harmful invasive non-native species, including plants (e.g. Japanese Knotweed or Himalayan Balsam), animals (e.g. Crayfish) and / or diseases (e.g. Ash Dieback). These organisms can potentially be spread when, for example, material is imported / exported from the site and / or via dirty construction plant, machinery or equipment.
3. When dealing with invasive non-native species, the following good practice approach will be adopted to demonstrate due diligence and compliance with the Wildlife and Countryside Act 1981. This involves, adopting a precautionary approach and carrying out risk assessments prior to construction. Due diligence will include assessing the risk of an offence happening, establishing what to do to avoid it happening and acting according to best practice to prevent it happening. Should invasive non-native species be identified, the contractor would inform the site management team and advice from an expert or habitat lead would be sought.
4. As set out in the Ecology Assessment supporting the proposed development, no non-native invasive species listed in Schedule 9 of the Wildlife and Countryside Act 1981 were recorded on or near the Site at the time of the original survey. As such, the risk of non native invasive species is considered low. Surveys would be undertake if all working areas and haul routes prior to construction starting and any non-native invasive species would be identified and managed prior to construction commencing. Due to the current absence of invasive species within the site this CEMP focusses on the potential pathways or introductions onto the Site from elsewhere and for mitigation procedures to be put in place to prevent this.

Pre-Construction Considerations

5. To avoid the introduction, movement and spread of non-native species on and off the Site, the following pre-construction considerations will be undertaken:
 - Site contractors will be briefed prior to construction work to ensure they understand the risks and implications of managing potential non-native species.
 - Where a non-native species is identified as a risk of being introduced, spread within, or moved off site, ensure mitigation measures put in place.
 - If a species is found which requires long-term management (e.g. Japanese knotweed), ensure a site management plan is put together that addresses all issues associated with it.
 - Should a non-native invasive species be discovered on site during construction works, a suitable Clerk of Works / Ecologist would be engaged to advise on its management to control its spread.

On-site Biosecurity Considerations

6. One of the main approaches to reducing potential pathways or introductions onto the Site is to ensure that all relevant construction contractors are aware of what the species look like and the particular issue associated with them. This educational approach could be provided through a 'tool box' talk or when inducting contractors.

Equipment / Machinery Considerations

7. To maintain good site hygiene the following measures will be implemented:
 - A fence that can be clearly seen should mark out the area of issue. Signs should be erected to warn construction contractors that there is an area infested / contaminated.
 - Where contaminated soil, materials or water are located, signage should be erected to indicate them.
 - Personnel working on or between sites should ensure their clothing and footwear are cleaned where appropriate to prevent spread.
 - Tracked vehicles should not be used within the area of infestation.
 - All vehicles leaving the infested area and / or transporting infested soil / materials must be thoroughly pressure-washed in a designated wash-down area before being used for other work.

- Where cross-contamination is possible (i.e. from one site to another), consider designating vehicles or machinery to specific sites where possible to prevent spread.
- Material / water left after vehicles have been pressure-washed must be contained, collected and disposed of appropriately.
- All chemicals used for the control of non-native species should be stored and used in a responsible manner.
- All wash facilities including wastewater from washing vehicles, equipment or personnel should be managed in a responsible way so as not to not cause harm to the environment.

Use and Movement of Soil and Water

8. The introduction of a non-native species both onto and off a Site is most likely to happen in the following ways:
 - Existing soil free from non-invasive species can be re-used on site. Any soil that is imported onto the site should always comply with the relevant standards to ensure that material should be free from Japanese knotweed propagules, rhizome and vegetative fragments.
 - Water for construction purposes or to wash vehicles or equipment should not inadvertently act as a vector for the transportation of non-native species to / from the Site or elsewhere.
 - Vehicles should be inspected before being moved onto or off site. Wash facilities suitable for the construction vehicles should be provided (where necessary) and particular attention should be paid to caterpillar tracks and where trucks and dumpers are stowed.

Appendix B: Environmental Risk Assessment

Register of Environmental Activities / Aspects / Impacts and Level of Significance Matrix

Environmental aspect
An *environmental aspect* is an element or characteristic of an activity, product, or service that interacts or can interact with the environment.

Environmental impact
An *environmental impact* is a change to the environment that is caused either partly or entirely by one or more [environmental aspects](#)

LOW RATING 1-2 Low level of significance Seldom or unlikely to Occur Maintain site controls	MEDIUM RATING 3-4 Medium level of significance Reasonably likely to Occur Potential risk to the Environment Monitoring required	HIGH RATING 6-9 High level of significance High probability of Occurring Risk to the Environment Site audits/inspection required
Likelihood:- 1=Low (Unlikely) Severity:- 1=Low (Slightly Harmful)	Likelihood:- 2=Medium (likely) Severity:- 2=Medium (Harmful)	Likelihood:- 3=High (Highly likely) Severity:- 3=High (Damaging)

Serial	Group	Activity	Aspect	Environmental impact	Without controls			With Controls			Management Controls	Mitigation Measures
					Severity	Likelihood	Rating	Severity	Likelihood	Rating		
1	Office and Site	Travel to site	Emissions from road transport vehicles Depletion of natural resources	Global warming and local air quality Emissions to the atmosphere	1	3	3	1	2	2	Trackers fitted to vehicles to monitor use. Usage reviewed weekly by site manager/car and van sharing encouraged. Maintenance and handover checks. Vehicles sourced locally where possible Drivers carryout daily checks	Servicing vehicles regularly. New for old between 3-5years usage. Vehicles to be switched off when not in use
2	Site	Use of plant and machinery	Emissions from mobile plant and machinery Depletion of natural resources	Global warming and local air quality Emissions to the atmosphere	2	2	4	2	1	2	Usage reviewed weekly by site manager Maintenance and handover checks. Plant and machinery sourced locally, where possible	Servicing plant/machinery regularly. Plant/machinery switched off when not in use
3	Site	General construction waste	Leaks, Spillage or litter from handling or storage of controlled waste	Contamination of ground and or controlled waters Add to landfill and or reduction in waste going to landfill	1	2	2	1	1	1	Stored in designated areas. Covered skip where possible. Waste segregation where possible.	No burning on site Confirm waste carriage licences.
4	Site	Site clearance	Drainage of ground excavations	Contamination of controlled waters with Suspended solids (Silt) Discharge into water Discharge into land	2	1	2	1	1	2	Where possible prevent water from entering site clearance / excavations. Any run off from works monitored and silt fencing used to control as required.	Silt fencing if required
5	Site	Handling or storage of oils, fuels and other chemicals	Leaks or spillage whilst handling or storing oils, fuels and other chemicals	Contamination of ground and or controlled waters	3	1	3	2	1	2	Handled and stored to avoid any spillage or escape to surface drainage systems or water courses (and unprotected ground). Any fuel storage on site should be kept to a minimum required for use on the project. Appropriate PPE is available Deliveries supervised at all-times	Spillage procedures Regular checks on storage containers Bowser and containers for storage to be locked Lockable valves fitted to all storage tanks
6	Site	Use of plant / machinery / equipment	Leaks, spillage of oil / fuels from Machinery / mobile plant and equipment	Contamination of ground and or controlled waters	3	2	6	2	1	2	Handled and stored to avoid any spillage or escape to surface drainage systems or water courses (and unprotected ground). Any fuel storage on site should be kept to a minimum required for use on the project.	Spillage procedures Regular checks on machinery and plant equipment
7	Site	Use of plant and machinery	Mud deposition from vehicle washing	Contamination of ground and or controlled waters with suspended solids (silt)	2	2	4	2	1	2	Any runoff from works monitored and silt fencing used to control as required Road sweeper utilized for project where necessary Bunds and or similar used to contain liquid pollution prior to suitable treatment/disposal	Confirm waste carriage licences. Vehicle wash systems Audit site and monitor.
8	Site	Use of plant and machinery	Noise and vibration from heavy machinery and mobile plant	Nuisance to local community	2	2	4	1	2	2	Site contractors should endeavour to use best practicable means. (Switch off equipment / vehicles when not in use etc.) Plant and machinery are in good order and regular checks completed. Implement identified control measures and brief operative's/workers on the site specific controls in relation to noise and vibration.	Subject to Noise Assessment supporting the consented development Noise suppression should be used on all equipment where fitted and practicable Position machinery and plant where they will cause least nuisance to the surrounding area.
9	Site + access	Use of vehicles, plant and machinery	Dust, fumes, odours and windblown debris	Nuisance to local community	1	1	1	1	1	1	Reduce the amount of dust through dust suppression methods. Ensure fumes and odours produced by site construction works are kept to a minimum. Cover all skips and containers where practicable to reduce the risk of windblown debris. Works to be covered by site specific RAMS and implement controls measures in relation to the work activities. Workforce to be briefed on control and minimisation of Dust, fumes, odours and windblown debris through practicable means.	Consider locations of skip and siting to prevent complaints Dampen surfaces on site during dry periods to reduce particles becoming airborne
10	Site	Site Activities	Use of goods and products from sustainable sources or services from suppliers with sustainable sources		2	1	2	1	1	1	Reduce, reuse and recycle - all help to cut down on the amount of waste we throw away. They conserve natural resources, landfill space and energy. Waste or used products which have not irreversibly lost their useful characteristics in use and can be recycled as secondary raw materials. Wherever possible materials shall be procured from suppliers who can demonstrate that their materials are obtained from sustainable sources.	Reuse products for the same purpose. Buy products made from recycled material
11	Site	Site activities	Damage to land, crops, wildlife or archaeology during construction	Damage to vegetation/disturbance to wildlife or loss of biodiversity	3	2	6	2	2	4	Restrictions and operational requirements to be identified and discussed through tool box talks at start of construction phase Restrictions and operational requirements included in site specific RAMS Project ecologist to advise on translocation of species rich grassland turfs Ensure appropriate protection zones are established prior to any works	Refer to technical reports and RAMS reports Highlight arrangements through toolbox talks and other means to raise awareness. Monitor and manage Arrange specialist training as required

											Appropriate working techniques are observed and adhered to.	Refer to GCN Mitigation Measures upon licence agreement
											Works that could impact great crested newt (GCN) Triturus cristatus must be undertaken under a development licence granted by Natural Resources Wales (NRW). This is being applied for separately and on receipt of the licence the working method statement will be made available for all site operatives.	
12 Site and offsite	Land Management	Site activities and travel to and from site	Movement of vehicles on and offsite	Spread of non-native / invasive species	2	2	4	2	1	2	Site contractors will be briefed prior to construction work to ensure they understand the risks and implications of managing potential non-native species. Refer to Biosecurity and Invasive Non-native Species Management Plan (Appendix A to the Construction Environmental Management Plan)	Refer to Biosecurity and Invasive Non-native Species Management Plan (Appendix A to the Construction Environmental Management Plan)

Appendix C: Reasonable Avoidance Measures

Legacy Battery Storage Facility

on behalf of Axis PED

Reasonable Avoidance Measures Method Statement



Document Control				
Project Name:		Legacy Battery Storage		
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V1	01/04/2022	First Issue	J. Stevens BSc Hons	A. Stanley BSc Hons PG Dip

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APPENDIX 1: REASONABLE AVOIDANCE MEASURES METHOD STATEMENT –REPTILES

The following Reasonable Avoidance Measures (RAMs) Method Statement outlines suitable measures to be implemented during construction works associated with the proposed battery facility (the Site), to avoid the potential for disturbance, injury or killing of common and widespread reptile species. It is considered that the measures outlined will also protect small terrestrial mammal species such as western European hedgehog *Erinaceus europaeus*.

These RAMs do not cover works that could impact great crested newt *Triturus cristatus* which must be undertaken under a development licence granted by Natural Resources Wales (NRW). On receipt of the licence the working method statement will be made available for all site operatives.

Measures to ensure the favourable conservation status of the species during the proposed development must reflect legislation and guidance application at the time and the construction phase will be undertaken following RAMS under the supervision of an Ecological Clerk of Works (ECOW) as required to provide advice.

These RAMs relate to the removal of vegetation with potential to shelter animals for built development and temporary excavations for a grid connection and should not be employed for larger scale or extensive scrub or woodland habitat removal. Minor or short term destructive or disturbance works will also follow this Method Statement to ensure legal compliance and to ensure the objectives are achieved.

It will be the responsibility of the site 'Owner/Developer', the Site Manager and all site contractors to ensure that the RAMs set out below are adhered to during the works.

Method Statement Objectives

In order to facilitate the proposed works, a detailed working RAMs Method Statement will be adopted to limit disturbance to avoid significant impacts on reptile populations potentially present.

Any development related activities on the Site, such as vegetation clearance or excavations in areas of suitable habitat may potentially affect reptile species. As a result, safeguards must be implemented to protect these species and the Method Statement below outlines measures to be implemented to ensure these objectives are achieved. If these measures are followed then no impacts are likely to occur.

Project Ecologist

Certain site set-up and construction activities will require the presence of an experienced licensed ecologist (the Project Ecologist). The role of the Project Ecologist is to ensure that working areas, access and the like are checked as necessary and positioned away from 'higher risk' habitat outside of the licensed working area where great crested newts and other wildlife are more likely to be present and protecting habitats to be retained (e.g. boundary tree lines).

The Project Ecologist will identify areas or features offering potential refuge for reptiles and inform the site team on areas to be avoided, and advise on any legislative aspects associated with the works. The Project Ecologist will provide a tool box talk to all site staff prior to works commencing on Site. The Project Ecologist will also be present during all works considered to require advice and supervision (to include initial vegetation removal and checks of any discrete refugia within the Site).

The Project Ecologist will be contactable by the Site Manager at all other times and available to further advise on site if necessary, as a contingency measure.

Method Statement

This Method Statement should be followed for the construction works and associated minor short term destructive habitat clearance works within the Site in order to ensure legal compliance and to ensure the objectives are achieved.

APPENDIX 1: REASONABLE AVOIDANCE MEASURES METHOD STATEMENT –REPTILES

Site set up

Temporary fencing will be installed to identify and protect trees and boundary vegetation outside the licensed working area to be retained throughout the construction period. This will also prevent accidental disturbance to such features which may provide refuge for reptiles.

Initial vegetation removal may only be undertaken once the Project Ecologist has undertaken visual checks as necessary. Working areas and agreed access routes and any exclusion areas shall be adhered to at all times, unless agreed in advance with the Project Ecologist.

The vegetation removal/site clearance works should be undertaken during the period in which reptiles are active (March to October inclusive). Once cleared of vegetation, the site is no longer likely to attract or support reptiles.

Pre-works

All site operatives will be informed by a 'tool box' talk at the start of works on the possible presence of protected species, licensing and ecological responsibilities, and what to look out for during works. An informative leaflet will be available to all site operatives. All staff will sign a Confirmation Sheet to show they have received and understood the briefing information on protected species.

The Project Ecologist will walk the site prior to any works commencing to identify possible features that may provide shelter or refuge for reptiles and other wildlife. In the event that such features are present, these will be searched to confirm that no reptiles are present or that no other species is likely to be injured or killed. The working areas, access routes and any excluded areas will be confirmed with the Site Manager and clearly identified. Works will only commence once the licensed ecologist has carried out their inspection.

Grassland and scattered scrub along the grid connection route will be subject to an initial check and cut down to a height of approximately 150mm to make the Site less favourable as terrestrial habitat and therefore less likely to support reptiles and other wildlife. After a minimum period of two days, the site will be checked by the Project Ecologist. Any animals found will be allowed to escape of their own accord. Once checked, the works can commence.

During Works

The following measures will be adopted throughout the construction period of the proposed development:

- Site operatives will be informed by 'tool box' talk of the potential for protected species to occur on-site, what to look out for and what to do in the event that animal is found.
- Vegetation clearance works should only commence after a careful visual inspection by the Project Ecologist or ECoW has determined that no animals are present. Potential refugia should be hand searched by the ecologist prior to removal. Vegetation should be reduced (by hand trimmer) to a height of c.150mm prior to ground works commencing to aid visual searches and encourage individuals to temporarily move away from the working areas.
- The proposed timing of the works should avoid the reptile hibernation period (November to February inclusive) in order to prevent disturbance to hibernating animals.
- All work traffic will use the same access route thus minimising disturbance to other areas and will follow the predefined access routes.
- Earth stockpiles will be smoothed to remove surface crevices or voids that could potentially shelter reptiles and thereby put them at risk during future removal / re-use of stored soils. Earth

APPENDIX 1: REASONABLE AVOIDANCE MEASURES METHOD STATEMENT –REPTILES

stock piles should not be created off-site or adjacent to retained vegetation such as boundary trees.

- Trenches and excavations should include an escape route for animals that might enter the trench, especially if left open overnight. Ramps should be no greater than 45 degrees in angle and can include wooden planks or ramped earth. Ideally, any excavations open for a prolonged period should be covered.
- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling.
- Any excavated material stored overnight should be searched prior to being used as infill.
- Any brash cut down from the Site should be placed in piles within a set aside and undisturbed habitat area, to create additional refugia for reptile species.

Should a great crested newt, reptile, western European hedgehog or other notable species be found at any point during construction, works within suitable habitat and/or potentially disturbing works in close proximity to the great crested newt/reptile/hedgehog must cease immediately and the ECoW will advise on the appropriate actions.