ETIVE ECOLOGY
Ecological Services & Solutions

INSTALLATION OF HIGH VOLTAGE CABLE, MAELOR WORKS TO MAELOR GAS WORKS

P/2023/0752

SCHEME OF REASONABLE AVOIDANCE MEASURES

1.1 Introduction

Innova Ltd have been granted consent to install buried high voltage cables within a corridor between Land North of Maelor Works and Access Roads to Maelor Gasworks (P/2023/0752). The scheme is to connect the approved solar park on Land North of Maelor Works to a new substation approved under the permission for a solar park on land at Cefn Park.

The land around Wrexham Industrial Estate (WIE) is ecologically sensitive due to the presence of a significant population of great crested newts (GCN). Bats are also known to be present within the area of the cable corridor, including a single mature oak tree adjacent to the route.

The decision notice for the approval includes planning conditions that state:

4. No development shall take place until a Great Crested Newt Reasonable Avoidance Measures scheme has been submitted to and approved in writing by the Local Planning Authority. The Reasonable Avoidance Measures scheme shall include, but not necessarily be limited to:

- *Build upon the principles outlined in the ecological report (above).*
- *Details and associated plans concerning GCN reasonable avoidance and mitigation measures including, but not limited to, one-way amphibian fence design and locations (prior to and throughout the duration of any work).*
- *Measures to be taken to prevent or reduce accidental capture or killing of GCNs during the construction phase.*
- *Ecological Compliance Audit.*
- *Works to be carried out under the appropriate licence issued by NRW under the provisions of Regulation 55 (2) of the Conservation of Habitats and Species Regulations 2017 (as amended) if works cause death injury or disturbance to protected species and or cause damage or destruction to their breeding sites and resting places.*

The Reasonable Avoidance Measures scheme shall be carried out in accordance with the approved details.

AND

5. No development shall take place until a bat Reasonable Avoidance Measures scheme has been submitted to and approved in writing by the Local Planning Authority. The Reasonable Avoidance Measures scheme shall include, but not necessarily be limited to:

- *Build upon the principles outlined in the ecological report (above).*

- *Details and associated plans concerning bat reasonable avoidance and mitigation measures (prior to and throughout the duration of any work).*
- *Details and timings for climbed endoscope inspections and/or activity surveys.*
- *Ecological Compliance Audit.*
- *Works to be carried out under the appropriate licence issued by NRW under the provisions of Regulation 55 (2) of the Conservation of Habitats and Species Regulations 2017 (as amended) if works cause death injury or disturbance to protected species and or cause damage or destruction to their breeding sites and resting places.*

The Reasonable Avoidance Measures scheme shall be carried out in accordance with the approved details.

This document presents a scheme of Reasonable Avoidance Measures (RAMs) for GCN and for bats, aimed to prevent harm or disturbance to any individual GCN/bat during the installation of the proposed scheme.

This document will be appended to the contractors Construction Method Statement for use on site.

1.2 GCN RAMS

The proposed cable will be installed using a combination of open-cut and trenchless techniques. The working width is likely to be 5-10m and the duration of installation is likely to be 3-4 months. The anticipated start date is August 2025, depending on suitable ground and weather conditions.

The eastern section of the cable route is through the existing public highway, thus the risk of encountering or harming GCN is considered to be negligible. The western section of the route is through arable farmland and poses a low risk of encountering or harming GCN.

Due to the presence of GCN locally and the suitable within the western portion of the cable route, a precautionary approach is required to ensure that no GCN or other species of amphibian are harmed during the installation of the cables. The following approach is recommended:

Scheme of GCN Reasonable Avoidance Measures (RAMs)

The low risk of disturbing or harming GCN during the installation of cables along the western portion of the route will be mitigated through the implementation of the following RAMs:

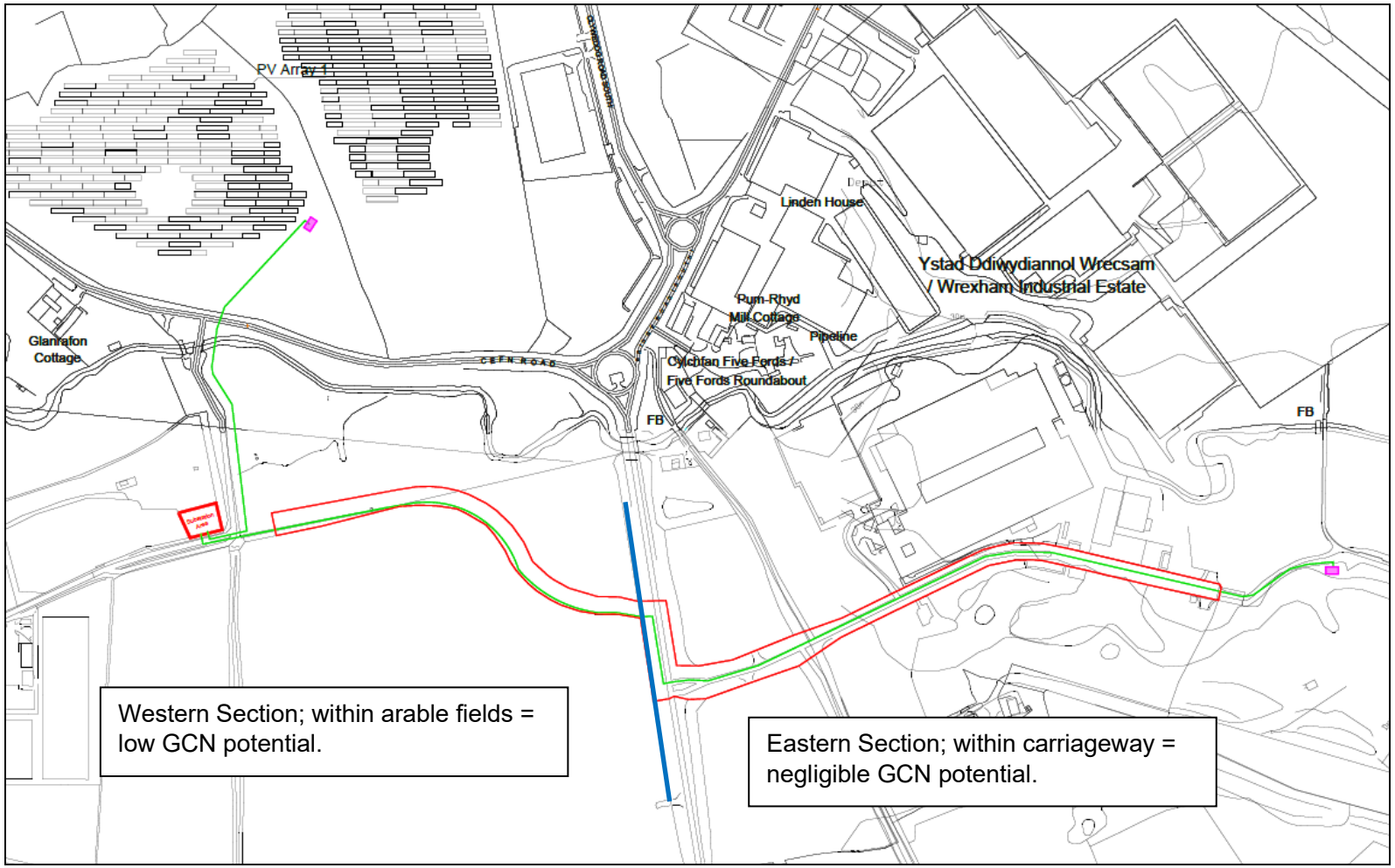
- A pre-commencement Toolbox Talk will be delivered to the site personnel working on the scheme. This will provide information relation to GCN identification, ecology and legal status, as well as the details and requirements of these RAMs.
- A phased approach to installation works. Small sections of the trench will be opened up each day with the intention of completing each section by the end of the day, to minimise the length of trench posing a risk to GCN.
- A pre-commencement hand-search of areas due for breaking of ground will be undertaken by a GCN licensed ecologist.
- Clearance of ground vegetation, detritus and any other potentially suitable refugia for GCN (such as any piles of logs, brash, bricks or stones) will be undertaken prior to any construction works. This clearance will be undertaken with care and by hand by a suitably experienced contractor.

- Topsoil strip of the corridor to be undertaken under the direct supervision of a GCN licensed ecologist.
- If any GCN are encountered, works in the area of the discovery should cease immediately and a GCN licensed ecologist called for advice. A review of the impacts on GCN will be made and if necessary, a licence will be obtained for the works to continue.
- During installation works;
    - all materials will be stored off-ground on stillages or pallets.
    - all rubble/spoil/earth arising from works will be skipped or removed from site on a daily basis.
    - any excavations left overnight will either be back-filled and compacted or else covered by plastic sheeting and secured by plywood batons (or similar) to prevent GCN from gaining access.
    - pre-start checks of the working area will be undertaken each morning, looking for any GCN.
    - all site workers will be made aware of the potential presence of GCN and an identified sheet will be kept on site in case any of these animals are encountered.

The above RAMs have been designed such that the site can be carefully cleared without harming GCN and that subsequently the site is kept tidy and unsuitable for these species to utilise, so that they do not take refuge within the working area.

Provided this scheme of RAMs is followed in full, the risk of encountering, disturbing or harming GCN is considered to be very low. To ensure these RAMs are implemented, an Ecological Compliance Audit (ECA) will be undertaken by the appointed ecologist. In addition to the specific actions noted in the RAMs to be undertaken by the ecologist, weekly spot-checks will also be undertaken, to record and document the general 'tidy-site' measures specified above. Where the site fails to implement any of these actions stated herein, the key performance indicators will not have been met, the scheme will in breach of the ECA and Wrexham CBC will be notified accordingly. A record of this ECA will be made available to Wrexham CBC upon request.

It is noted that if any GCN are encountered, then works in the area of the finding will cease until the risk posed to protected species is re-assessed by a suitably experienced ecologist. If the risk posed is considered to be significant, then a license *may* be required in order for works to recommence.


PV Array 1
Linden House
Ystad Ddiwydiannol Wrecsam / Wrexham Industrial Estate
Pum-Rhyd Mill Cottage
Pipeline
Glanrafon Cottage
Cylchfan Five Fords / Five Fords Roundabout
FB
FB
Western Section; within arable fields = low GCN potential.
Eastern Section; within carriageway = negligible GCN potential.

1.3 Roosting Bat RAMS

The proposed cable will be installed using a combination of open-cut and trenchless techniques. The working width is likely to be 5-10m and the duration of installation is likely to be 4-6 weeks. The anticipated start date is March 2025, depending on suitable ground and weather conditions.

There is a single tree within 30m of the cable corridor with the potential to support roosting bats. The tree is located at the western end of the route; a mature oak tree located within an arable field boundary and on the southern edge of the red line boundary. The tree was assessed to be of Low Bat Roost Potential as part of the Preliminary Ecological Appraisal (PEA). The scheme has the potential to disturb any bats that may be roosting within the tree at the time of survey. No direct or long-term impacts on the tree are anticipated from the cable installation works.

Due to the potential presence of roosting bats within the oak tree, a precautionary approach is required to ensure that no bats are disturbed during the installation of the cables. The following approach is recommended:

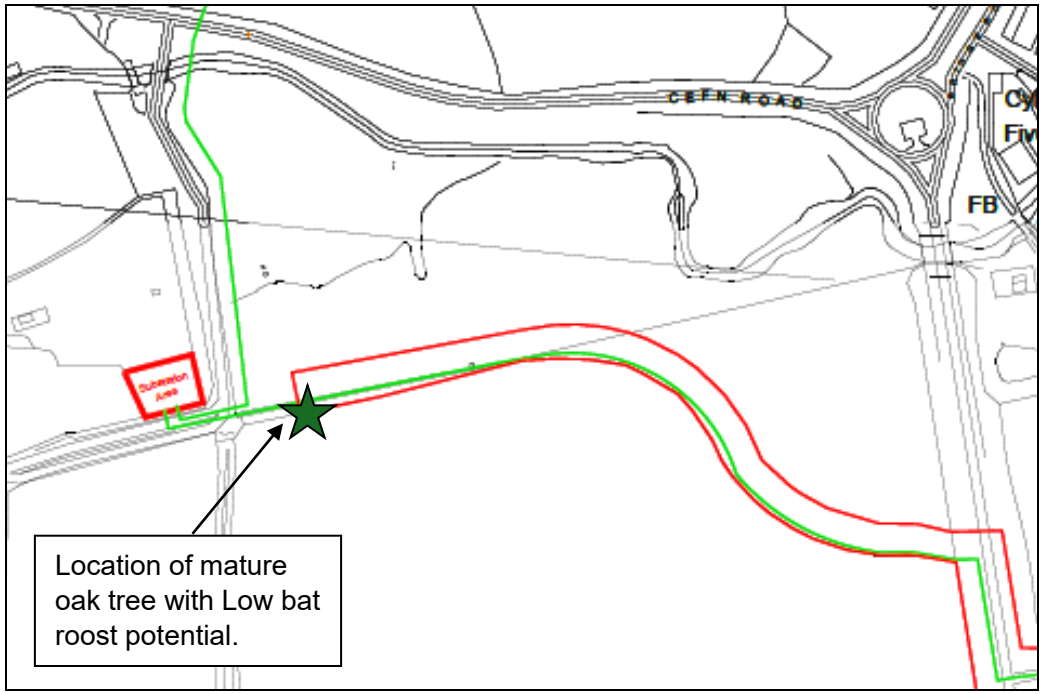
Scheme of Bat Reasonable Avoidance Measures (RAMs)

The low risk of disturbing roosting bats during the installation of cables within 30m of the oak tree (location shown below) will be mitigated through the implementation of the following RAMs:

- A pre-commencement Toolbox Talk will be delivered to the site personnel working on the scheme. This will provide information relation to bat ecology and legal status, as well as the details and requirements of these RAMs.
- A 30m disturbance zone will be demarcated on site, centred around the oak tree. Within this zone, vehicles will be required to travel on the northern edge of the cable corridor, to minimise potential disturbance to the tree and any bats within it.
- Immediately prior to any works commencing within this 30m disturbance zone, the tree will be subject to a “climb & inspect” survey by a bat-licensed tree climber. All potential roosting features associated with the tree will be fully inspected for the presence of any bats or for any evidence of previous usage by bats.
- Where any bats are found, there will be two options; 1. Route the cable trench a minimum of 10m from the tree and ensure that all works <30m of the tree are undertaken over a 5-day period and under direct ecological supervision and instruction, 2. Apply for a Bat License from NRW to allow for the temporary disturbance of a bat roost.
- Where no bats are present but evidence of former bat usage is found, all works <10m of the tree (including vehicle movements) must be preceded by a “climb & inspect” survey. Only if bats remain absent will works be permitted to continue, otherwise one of the procedures noted above must be followed.
- Where no bats and no evidence of bats are found to be present, works can proceed with no further constraints relating to roosting bats in the mature oak tree.

The above RAMs have been designed such that the risk posed to roosting bats is confirmed immediately prior to the start of works. The RAMs detail the appropriate response based on the risk of disturbance to roosting bats.

Provided this scheme of RAMs is followed in full, the risk of disturbing or harming bats is considered to be very low. To ensure these RAMs are implemented, an Ecological Compliance Audit (ECA) will be undertaken by the appointed ecologist. In addition to the specific actions noted in the RAMs to be undertaken by the ecologist, weekly spot-checks will also be undertaken, to record and document the implementation of the measures specified above. A record of this ECA will be made available to Wrexham CBC upon request.



1.4 Timing of Works

The works are to be implemented from March 2025 onwards, when ground conditions are assessed to be appropriate.

At this time of year, GCN and bats will be emerging from hibernation. However, both species will be susceptible to particularly cold or inclement weather conditions. Therefore, when overnight temperatures drop below 5°C, works should not be undertaken as individual GCN/bats would be at a greater risk of harm if disturbed.

Consideration will also be given to the nesting bird season, which runs from March to August inclusive. Works within 10m of the existing oak tree should take place outside of the nesting bird season, to avoid potential disturbing impacts on any active nests, such as reports of kestrel using this tree as a nest site.

1.5 Roles & Responsibilities

The following roles and responsibilities are defined:

GCN Licensed Ecologist

- Preparing and delivering a pre-commencement Toolbox Talk to all site workers.
- Undertaking pre-commencement hand-searches of the working area.
- Being available on-call to respond to any incidental amphibian finds.
- Undertaking weekly inspections as part of the ECA.
- Recording and reporting all actions taken under this RAMs.

Bat Licensed Ecologist

- Preparing and delivering a pre-commencement Toolbox Talk to all site workers.
- Demarcate the 30m disturbance zone around the oak tree.
- Undertaking pre-commencement “climb & inspect” survey of the oak tree.
- Advising the Contractor on the required approach to RAMs following the “climb & inspect” survey.
- Being available on-call to respond to any incidental amphibian finds.

Developer / Contractor

- Marking out the required working area, including lien of cable and vehicle access routes.
- Ensuring all site workers either attend the Toolbox Talk or cascade the Toolbox Talk to them at a later date.
- Record the attendance at Toolbox Talk(s).
- Appoint a suitably experienced contractor to undertake site clearance.
- Ensure that their Principal Contractor and all sub-contractors follows the ‘tidy-site’ measures described herein.
- To stop works if any amphibians, bats or nesting birds are found.

1.6 Net Benefit for Biodiversity

The approved scheme poses temporary impacts to primarily low value habitats, e.g. arable land. The only notable habitat affected by the scheme is the temporary loss of a section of roadside hedgerow in the centre of the route. This hedgerow was found to be species-poor at the time of the PEA.

Net Benefit for Biodiversity (NBB) will be delivered on this scheme through the enhancement of the section of species-poor hedgerow that is directly affected by the scheme. This section of hedgerow will be reinstated with an equal mix of five native species; hawthorn, blackthorn, hazel, holly and elder. The hedgerow will be subject to appropriate management for 5 years post-planting or until such time that it is suitably well-established (as advised by a suitably experienced ecologist). This will provide a NBB by improving species diversity at the local scale, by offering additional foraging resources to wildlife and by improving an existing linear corridor of green infrastructure.