

Woodland & Countryside Management Ltd.

Helping you make the most of your land



**Proposed installation of a ground mounted
Photo Voltaic (PV) solar farm development on
Land to the east of the A48 and Land to the
south-west of Tycroes**

Supplementary Report: underground cables

**Impact Assessment & Method Statement
(DNS Ref. No. 3227364)**

Report by: Steve Russell BSc (Hons)

Date: 26th March 2020

1.1 Background

Woodland & Countryside Management Ltd. was commissioned to carry out a BS5837 (2012) Tree Survey in November 2019 and following a number of revisions, was subsequently asked to produce an Arboricultural Impact Assessment and Method Statement in January 2020. Following comments arising from the DNS Pre-application consultation process, Woodland & Countryside Management Ltd. were asked to produce a supplementary report to further consider the Underground Cabling servicing the proposal.

1.2 Purpose of Report

This report provides analysis of the impact of the proposed cabling on trees and hedgerows; its primary purpose is to identify the cable installation methodology in support of the planning submission and for use as a basis for issuing planning consent or engaging in further discussion towards that end. This report is based on my site observations and the information provided; I have interpreted this in the context of my experience.

The report provides details of the recommendations for tree protective measures that should be put in place to ensure the retained trees and hedgerows remain in the long term. All comments and recommendations in this supplementary report are to be read in conjunction with the main Arboricultural Impact Assessment and Method Statement dated 12th January 2020.

2.1 Impact on Trees

As with the main development, the location of the underground cabling is made based on the primary assumption that there is no disturbance within the RPA's of the retained trees, particularly those of categories A and B. In terms of the cabling the primary areas are the woodlands and riverside trees to the west and the hedgerows. The area long the track adjacent to the main road has recently had a large number of diseased Ash removed and the remaining trees and scrub contain trees of primarily category C.

2.2 Proposals to Mitigate Impact

To minimise the impact of the cabling on trees and hedgerows consideration has been given to the location and layout. A number of protection measures are proposed as follows:-

1. All areas where the cable crosses woodland will be installed using a horizontal directional drill system. Fencing will be erected a minimum of 2.0m away from the woodland or tree RPA extending a minimum of 3.0m either side of the line of entry at both entry and exit points.
2. Where the cable runs in open ground adjacent to trees, installation will be by trenching but set a minimum of 1.0m outside the line of the dominant trees RPA's.
3. Where the cable runs in open ground adjacent to hedgerows, installation will be by trenching but set a minimum of 1.5m outside the crown line of the hedgerow.

4. Where the cable runs through a hedgerow tree or a hedgerow, installation will be by using a trenchless system that may be hand dug or using a boring drill. Fencing will be erected a minimum of 2.0m away from the hedge or tree RPA extending a minimum of 3.0m either side of the line of entry. This will be repeated on the other side of the hedge or tree.
5. The advice given in NJUG Guidelines for the Planning - Installation and Maintenance of Utility Apparatus in Proximity to Trees will be followed.

The proposed layout of the cabling and installation system zones is shown on the Cable Tree Protection Plans (Appendix 1)

2.3 Response to Specific Raised Comments

A number of specific comments were raised by the local planning authority and responses are given below.

Comment: The Tree report does not assess 'services' or the cable route.

Response: The proposed cable route was not finalised at time of report however, due to the nature of the works, best practice principles can be applied and these are detailed in the subsequent answers.

Comment: The tree survey misses out a proportion of the proposed cable route entirely from grid ref SN257980 290090 (*should read 209090*) to grid ref SN258530 209320.

Response: The cable will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow. On leaving the field through the farm access gate it will follow the private farm access track and will be installed using a trench system with the track being reinstated. (As detailed in the LEMP, Table 3.6).

Comment: The proposed cable route appears to run through RPAs of trees along the Afon Gwili and no tree protection measures are identified on the associated tree protection plan – Areas of concern between grid references SN257590 209250 and SN257700 209150.

Response: The cable will be installed using a trench along the line of the existing farm access track through the wood and then using a trench within the field siting outside the trees RPA's and a minimum of 3.0m from the bank of the Afon Gwili. The track will be reinstated.

Comment: The proposed cable route appears to run adjacent to or through woodland trees between grid references SN258540 209305 and SN258980 209585, no tree protection measures or RPAs are identified on the associated plans in this area and is cause for concern.

Response: The cable route will be installed using a trench within the existing farm access track to avoid RPA's. At SN 258643 209377 the cable trench route will cross the hedge line to the verge of the A483 taking advantage of a gap in the vegetation and will then continue within the wide verge of the A483 and sited as far as practical from the woodland.

Comment: The proposed cable route appears to run through RPAs of trees and tree protection areas at grid ref SN259225 209596.

Response: The cable will follow the access gate and will sit outside the trees RPA's and will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow.

Comment: The proposed cable route appears to run through tree protection areas between grid ref SN259225 209596 and SN259350 209548.

Response: The cable will sit outside the trees RPA's and will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow.

Comment: The proposed cable route appears to run adjacent to or through hedgerows and trees between grid references SN259350 209548 and SN259490 209497, no tree protection measures or RPAs are identified on the associated plans in this area and is cause for concern.

Response: The cable will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow. Where passing through hedgerows and hedgerow trees, installation will be by using a trenchless system. Fencing will be erected a minimum of 2.0m away from the hedge or tree RPA extending a minimum of 3.0m either side of the line of entry. This will be repeated on the other side of the hedge or tree.

Comment: The proposed cable route appears to run adjacent to or through hedgerows and trees between grid references SN259558 209675 and SN259618 209666, no tree protection measures or RPAs are identified on the associated plans in this area and is cause for concern.

Response: The cable will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow. Where passing through hedgerows and hedgerow trees, installation will be by using a trenchless system. Fencing will be erected a minimum of 2.0m away from the hedge or tree RPA extending a minimum of 3.0m either side of the line of entry. This will be repeated on the other side of the hedge or tree.

Comment: The proposed cable route appears to run through tree protection areas between grid ref SN259620 209670 and SN259680 209764.

Response: The cable will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow.

Comment: No tree protection measures proposed for construction compound despite adjacent trees between SN259693 259693 209762 and SN259837 209745.

Response: As detailed in table 2 of the LEMP, hedgerows at the solar farm boundary will be protected by a 7-metre buffer from all construction activities, whilst internal boundaries will be protected by a 5 metre buffer. These buffers will be delineated by a suitable fence before further works, such as the creation of the compound.

Comment: The proposed cable route appears to run adjacent to or through hedgerows and trees between grid references SN259925 (*should read 259843*) 209749 and SN260059

210135, no tree protection measures or RPAs are identified on the associated plans in this area and is cause for concern.

Response: The cable will sit outside the trees RPA's and will run inside the field boundary a minimum of 1.5m outside the crown line of the hedgerow. Where passing through hedgerows and hedgerow trees, installation will be by using a trenchless system. Fencing will be erected a minimum of 2.0m away from the hedge or tree RPA extending a minimum of 3.0m either side of the line of entry. This will be repeated on the other side of the hedge or tree.

Additional Response - Area not identified in comments: Hedgerows and trees between grid references SN257703 209148 and SN257967 209088. The cable will be installed using a Horizontal Directional Drill system (as detailed in the CEMP section 13) through woodland and under the Afon Gwili. On leaving the wood it will run inside the field boundary which has no trees or hedge.

2.4 Protection Barriers

Temporary tree protection fencing is to be erected prior to the start of any cabling works and will protect both the trees and hedgerows. The fencing will be retained and maintained for the full duration of the cable installation works. All fencing will be an above ground stabilising system of protective fence with stabilisers in block trays as per Figure 3b of BS5837 (2012). The protective fencing will be erected as per the Cable Tree Protection Plans (Appendix 1), and where meeting the permanent fencing or boundary of the site will link to the boundary to create fully enclosed protection areas.

3. SUMMARY

The protection of trees and hedgerows affected by the proposed cabling required to service the proposed site has been considered and this supplementary report provides an a Method Statement that ensures the cabling is carried out with the minimum impact on the retained trees and hedgerows.

4 APPENDIX

Appendix 1 Cable Tree Protection Plans



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Date: 26th March 2020