

**ELECTRICITY ACT 1989 (Sections 36, 37, 62(3) & Schedule 8)**

**TOWN AND COUNTRY PLANNING ACT 1990 (Section 90)**

**and**

**THE ELECTRICITY GENERATING STATIONS AND OVERHEAD LINES  
(INQUIRIES PROCEDURE (ENGLAND AND WALES)) RULES 2007**

**APPLICATION BY RES UK & IRELAND LIMITED, DATED 27 MARCH  
2009, FOR CONSENT UNDER SECTION 36 OF THE ELECTRICITY ACT  
1989  
TO CONSTRUCT AND OPERATE A  
100MW WIND TURBINE GENERATING STATION IN POWYS, MID WALES  
("LLANBRYNMAIR")**

DECC REFERENCE: LLANBRYNMAIR BERR/2009/004

**Rebuttal  
on Dormice  
of  
Elisabeth Halliwell BSc (Hons), PhD**

**Natural Resources Wales**

**29<sup>th</sup> November 2013**

## Response to:

**Rebuttal of Evidence – Habitats;** Mick Green, Ecology Matters (received 23/10/13)

And

**Llanbrynmair Access route – REBUTTAL EVIDENCE ON DORMOUSE;** no author given (received 25/11/13)

Two rebuttals have been received from Mick Green to the proof of evidence I submitted on 8/10/13. The second rebuttal repeats much of the material in the first rebuttal. I will respond to parts of the two rebuttals together.

Paragraph references to ‘Rebuttal of Evidence – Habitats’ are in **RED** and prefixed with **R1**

Paragraph references to ‘Rebuttal Evidence on dormouse’ are in **BLUE** and prefixed with **R2**

1. Para **R2 1.1.4** notes that I had not visited the site prior to writing my evidence. This is true but I had access to notes and photographs from a site assessment by John Messenger. I undertook a visit to the length of the proposed access route in October which confirmed the assessment made by Mr Messenger.
2. Para **R2 1.1.8** suggests that I was unaware of the background to the dormouse surveys. That is not the case and I acknowledge the different stages of the work completed including the initial habitat assessment of the route and desk study. In my proof I chose to concentrate on the issues with which I did not agree.

## CCW’s responses

3. Paras **R1 1.2.2** and **R2 1.1.9** refer to CCW’s scoping responses, specifically the response of 22<sup>nd</sup> September 2006. CCW received two scoping requests from RES dated 25 February 2005 [CD-CON-003-ECO-010] and dated 21 June 2006 [CD-CON-003-ECO-011]. The map of the consultation boundary submitted with these requests did not include the proposed off-site access route apart the middle third of the route which has no hedgerows and few areas of woodland along the road and is in a more upland landscape. Consequently CCW did not consider there was a need to request dormouse surveys at that time. RES have subsequently amended the boundary of their site without undertaking a further scoping exercise.
4. Paras **R1 1.2.7** and **R2 1.1.10** refer to CCW’s first response in 2008 to the Mynydd Waun Fawr windfarm access route which was proposed to follow the same route from Llanerfyl for the first 3km. The rebuttals suggest that the Mynydd Waun Fawr access road involves similar works to this section of the Llanbrynmair access road. In fact the ES for the Mynydd Waun Fawr windfarm had identified only 2 modifications along the 3km route, as opposed to RES’s approximately 11 modifications on the same 3km stretch. CCW’s most recent response to the

Mynydd Waun Fawr windfarm is a letter to Powys County Council dated 11<sup>th</sup> January 2013, which supercedes the earlier 2008 response. This 2013 letter states that CCW (now NRW) considers that the ES for the Mynydd Waun Fawr windfarm is deficient because the ecological (specifically including protected species) impacts of the works to the 3km stretch of the off-site access road have been inadequately assessed. [CD-CON-003-ECO-012].

5. Para R2 1.1.18 refers to a consultation response that CCW sent on 6<sup>th</sup> July 2012, a copy of which can be found in appendix 2.1 of SEI 3. This letter is specifically about the 'proposed new location for the Llanbrynmair windfarm substation'. It is not concerned with the access road.
6. Paras R1. 1.2.3 and R2 1.1.18 refer to CCW's response to the survey results in SEI 2, eg 'The results of these were submitted to CCW within SEI 2 in 2011. No concerns about the level of survey or survey method were raised by CCW at that time.' NRW responded to the SEI 2 in a letter dated 12 October 2012 [CON-003-OSOC-5-APP Llanbrynmair] which does raise issues about the dormouse surveys. In the SEI 2 RES state that the final road alignments have not been completed and that the details of the modifications are yet to be submitted to Powys County Council and that a further planning application is to be submitted. At the time of the SEI 2 there was uncertainty regarding the nature of the modifications required on the road and the potential scope of any necessary species surveys.

#### **Desk top study**

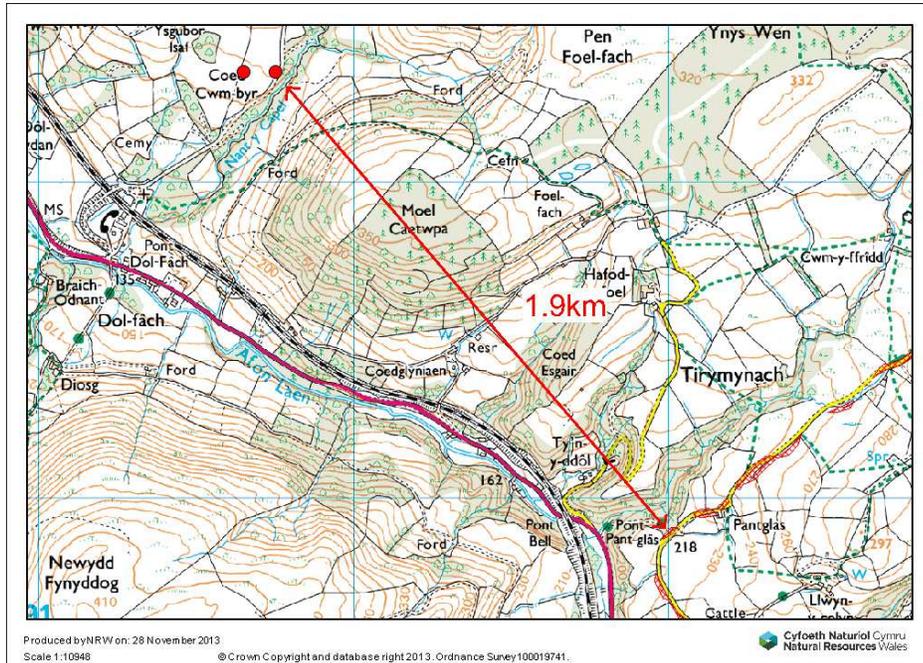
7. Paras R1 1.2.2 and R2 1.1.13 – refer to the National Biodiversity Network (NBN) desk study and the absence of records in 'the immediate vicinity' or in Cwm Eira. For information I have quoted the relevant paragraph of 'SEI August 2013 – Volume 1' section 5.12.4 which states:

*A desk study was undertaken in 2010. No Dormouse records were found from Cwm Eira at all. The only record within the two 10 km squares that cover the area was as follows: 1998 – confirmed hazel nut evidence found at SH917023 This wood is over 4.5 km from the nearest proposed access works and 10 km from the nearest suitable habitat that may be affected along the route. There is no direct connectivity between the sites.*

Due to the low recording effort for dormice in Wales I consider that searching for dormouse records from just the two 10km squares that cover the development area is too narrow. The start of the access route in Llanerfyl is only 280m from the adjoining 10km square to the north, square SJ01, and records as close as 300m away could have been missed by taking this approach. A search for records on the NBN in the 10km squares adjoining the two squares covering the development area shows that there are dormouse records in 6 of the 10 adjacent squares, demonstrating that the site is within the range of the dormouse in Wales.

The one record that was found in the desk study, referred to in the quote above, is described as being over 4.5km from the nearest proposed access works.

However, the map below shows that this record is actually only 2km from works on the access route.



**Figure 1** Map showing the distance between the dormouse record at SN917023 and the Llanbrynmair access route at Talerddig

Survey work by the ecologists for the access road to the proposed windfarm scheme at Dyfnant found evidence in 2011 of dormice in dormouse nest tubes at Llangadfan [CD-CON-003-ECO-013]. Two of these records are just 2.8km from Llanerfyl. The NBN also holds a dormouse record submitted by the People’s Trust for Endangered Species in Llanerfyl dating from 2005. I acknowledge that this particular record may not have been on the NBN website at the time of the desktop study, but it demonstrates that our knowledge and available information is always evolving and we need to be prepared to respond to this.

**The Guidance and survey method utilised**

- 8. Paras [R1 1.2.4](#), [R2 1.1.14](#) and [R2 1.1.21](#) onwards refer to the use of advice in the Dormouse Conservation Handbook (2nd edition published 2006; DCH) to direct the dormouse surveys. Para [R2 1.1.30](#) comments on the fact that I did not refer to the DCH in my proof of evidence. I agree that the DCH provides the primary reference for dormouse conservation within England and Wales.

It is my belief that the guidance in the DCH has not been applied correctly by the applicant. By referring to the Natural England interim advice note ‘*Dormouse surveys for mitigation licensing – best practice and common misconceptions*’ [CD-

CON-003-ECO-001] I sought to refer to more recent guidance which clearly sets out survey requirements for dormice. The NE interim advice note states that it was produced to *'rectify the issue of differing interpretations of the current guidance'*, whilst the DCH should still be utilised for details of the actual survey techniques themselves. The advice note is described as interim (as noted in para [R2 1.2.31](#)) because the intention is to produce more detailed guidance on surveys in the future.

9. I agree with the quotes given in paras [R1 1.2.5](#) and [R2 1.1.23](#) that searching for gnawed hazelnuts can be the 'best way' to establish dormouse presence. However, this is only an efficient method **IF fruiting hazel** is present. The quotes given in the two rebuttal documents also point out that this *'is obviously impractical where hazel is absent'*.
10. Para [R2 1.2.24](#) explains that it was considered that insufficient suitable habitat was available to conduct a systematic nut hunt using the first technique recommended in the DCH. Ecology Matters therefore appears to have decided to follow the alternative approach proposed in the DCH and para [R2 1.1.25](#) quotes an extract from section 3.2.2 of the DCH as follows:

*' "An alternative way of achieving an adequate sampling intensity ... is to collect 100 hazel nuts that have been opened by small rodents (voles and mice...). **If this sample contains no nuts that have been opened by dormice, it is highly probably [sic] that dormice are not present.**" (My emphasis).'*

Unfortunately a relevant part of the text has been omitted from the DCH quote which I have underlined:

*'An alternative way of achieving an adequate sampling intensity ....is to collect 100 hazel nuts that have been opened by small rodents (voles and mice, but avoiding caches made by these species and also ignoring nuts opened by squirrels).'*

The justification for this point is given in the DCH in the preceding paragraph on the same page where it states *'Heavy nut consumption by squirrels can result in 'false negatives', so where relatively few nuts (less than 100) are found that have been opened by species other than squirrels – and none have yet been found opened by dormice – it is appropriate to increase survey effort by searching up to a further five squares.'*

Ecology Matters conducted nut hunts at 4 sites. Para [R2 1.1.15](#) shows that at 3 of the 4 sites no hazel nuts were found. At the fourth site of 148 gnawed nuts found 103 were considered to have been eaten by squirrels. Therefore the standard required by the DCH to collect 100 hazel nuts that have been opened by small rodents (excluding nuts opened by squirrels) was not achieved at any of the 4 sites searched. I therefore can not agree with the statements in para [R1 1.2.9](#) that the advice in the Handbook was followed, in para [R2 1.1.26](#) that the dormouse survey was an adequate survey methodology and was *'the "best way" to establish the presence or absence of dormouse'* or in para [R2 1.1.29](#) that *'there*

*can be no doubt that the surveys were undertaken in accordance with not only an appropriate methodology but also the most appropriate survey methodology'.*

When insufficient hazelnuts were found at the selected survey sites Ecology Matters should have utilised one of the alternative approaches described in the DCH such as nest tubes or nest boxes. The Natural England interim advice note on dormouse surveys makes it clear that nut searches should not be used as evidence of the likely absence of dormouse on any site.

11. It is also worth noting that there is further reference on page 24 of the DCH to the use of nut hunt surveys:

*Sometimes there is too little heavily-fruited hazel to conduct the kind of surveys described above [nut hunts]. In these cases it is appropriate to check other locations more suitable for nut searches that are connected to the site by features along which dormice would be expected to move (for example, hedgerows). Should these prove to harbour dormice, then a precautionary approach should be taken to the site being investigated. This approach has particular merit when dealing with linear development schemes such as pipelines or new roads, which may affect large numbers of features such as hedgerows, patches of scrub and belts of woodland, all of which could be used by dormice and are difficult to sample by nut searches.*

There are two relevant points in this quote. Firstly that surveying adjacent areas could be considered. Para R1 1.2.5 of the first rebuttal document also refers to different section of the DCH stating '*it is worth searching any adjacent areas with hazel to see if dormice are nearby and thus likely to be present on the site under investigation*'. It is not clear whether this advice from the DCH was followed and if any adjacent areas were followed. This would have been useful additional approach to help establish the presence of dormice in the area of the proposed access route. Secondly, the DCH points out that hedgerows, patches of scrub and belts of woodland are difficult to sample by nut searches.

If all of the advice in the DCH had been followed it should have been apparent that an alternative survey technique needed to be used when the nut hunts proved unsuccessful. The Dyfnant windfarm serves as an example of what can be found when using an appropriate survey technique [CD-CON-003-ECO-013]. Nest tubes were used to survey for dormice on the proposed route of this windfarm access road in 2011. Three tubes were found to contain dormouse nests, two of which were less than 3km from Llanerfyl.

### **Sections of hedgerow/other affected habitat**

12. It is my opinion that the suitability of the habitat for dormice along the proposed access route has not always been adequately assessed. Sections of hedgerow were considered to be unsuitable for dormice as they had been '*heavily flailed*' and had an '*open nature*'. On inspection I found many of the hedges to have a

compact structure, including those that had been regularly trimmed. Such hedges, whilst not what would be considered to be ideal habitat for dormice, are potentially suitable for use by dormice seasonally and as connectivity between other habitat patches.

13. The report on the nut hunt survey results concludes that '*At the first two sites identified in the original survey (SJ 024087 and 012076) very little suitable habitat was found after close inspection, and no hazel nuts found*' (quoted in para 1.1.15 of the second rebuttal). It has been confirmed that these two grid references relate to section 1.14 chainage 2979 – 3050 and section 1.15 chainage 3340-3450 (Appendix 1 email from Mike Whitbread to Carol Fielding, 28 November 2013), even though the grid reference SJ 024087 is actually close to section 1.8 at chainage 1400. Para 1.1.37 of the second rebuttal does acknowledge that these areas of hazel coppice at 1.14 and 1.15 are potential dormouse habitat, but I cannot agree with the assessment given in para 1.1.15 of the second rebuttal that '*very little suitable habitat is present*'.
14. Section 1.21 chainage 4390-4450 is described in the supplementary information submitted to NRW on dormice [CD-CON-003-ECO-02] as '*no hazel present and not considered suitable for dormouse*'. When inspected in October 2013 hazel was found to be present. This hedgerow, of which 70m will be removed, has potential suitability for dormice.
15. Section 1.22 chainage 4440-4540 is described by Ecology Matters as '*the bushes are all very open and not considered suitable for dormouse*'. Although access to the bank at Gosen Bridge was not possible, my opinion is that the shrubs in this area do have the potential to be used by dormice.
16. This is not a complete review of the dormouse habitat suitability assessment undertaken by Ecology Matters, but examples of where there is potential concern. Concern about the assessment of these areas does raise uncertainty over the reliability of the other areas assessed.

## Appendix 1

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**From:** Mike Whitbread <[Mike.Whitbread@res-ltd.com](mailto:Mike.Whitbread@res-ltd.com)>

**Sent:** 28 November 2013 14:29

**To:** Fielding, Carol

**Subject:** RE: Locations of dormouse surveys

Carol,

The surveys were undertaken based on the AECOM drawings.

Therefore the exact locations are based on chainage from the submitted drawings:

SJ024087 = section 1.14 - chainage 2979 - 3050

SJ012076 = section 1.15 - chainage 3340 - 3450

SJ004081 = section 1.17 - chainage 3875 - 4090

SJ004079 = section 1.18 - chainage 4120-4200

At these section all of the section was surveyed.

Kind regards,

Mike

**Mike Whitbread**

Development Project Manager  
UK & Ireland Development

**D** +44 (0)1923 299 223

**M** +44 (0)776 819 9767



RES UK & Ireland Limited, registered in England and Wales with Company Number 4913493  
Registered Office: Beaufort Court, Egg Farm Lane, Kings Langley, Hertfordshire WD4 8LR

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**From:** Fielding, Carol [<mailto:Carol.Fielding@cyfoethnaturiolcymru.gov.uk>]

**Sent:** 27 November 2013 21:59

**To:** Mike Whitbread

**Subject:** Locations of dormouse surveys

Mike,

In the Llanbrynmair SEI and in Mick Green's most recent proof (section 1.1.15) there are four grid references provided as the locations considered as possible dormouse habitat. These are six figure grid references and therefore encompass a 100m x 100m area.

It is not clear for all these locations as where the dormouse survey was undertaken within this 100m x 100m square. Please could you send us a 10 figure reference for the locations or maps marked with the locations of the areas of the sample points?

Many thanks

kind regards

Carol

Dr Carol Fielding

Arweinydd Tim Maldwyn/Montgomeryshire Team Leader

Cyfoeth Naturiol Cymru/Natural Resources Wales

Ffôn/Tel: 01686 613402

E-bost/E-mail: [carol.fielding@cyfoethnaturiolcymru.gov.uk](mailto:carol.fielding@cyfoethnaturiolcymru.gov.uk)

[carol.fielding@naturalresourceswales.gov.uk](mailto:carol.fielding@naturalresourceswales.gov.uk)

Gwefan / Website: [www.cyfoethnaturiolcymru.gov.uk](http://www.cyfoethnaturiolcymru.gov.uk)/[www.naturalresourceswales.gov.uk](http://www.naturalresourceswales.gov.uk)

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