



Application by SP Manweb PLC, dated 2 December 2009 for consent under Section 37 of the Electricity Act 1989 to install and keep installed a 132kV overhead electric line connection from the proposed Llandinam Wind Farm to Welshpool Substation (the "Application")

RESPONSE OF DAVID BONNER ON VARIOUS CULTURAL HERITAGE MATTERS RAISED DURING SESSION 3 OF THE CONJOINED INQUIRY

1. CONFIRMATION AS TO THE ASSETS OUTSIDE THE 2KM ZONE THAT HAVE BEEN CONSIDERED

- 1.1 The Updated ES at paragraph 8.2.16 sets out that designated and registered cultural heritage assets within 2km were examined. Assets beyond this distance were not examined because "...this is regarded as the maximum point at which the proposed overhead line would potentially give rise to significant visual effects...". This is not to say that there may be distant views of the Scheme from assets beyond 2km, but that if they exist they will be negligible. This approach is consistent with that adopted in the LVIA.

2. CONFIRMATION OF THE WELSH GOVERNMENT ENDORSEMENT OF THE DMRB METHODOLOGY

- 2.1 The Design Manual for Roads & Bridges (DMRB) was introduced in 1992 in England and Wales (<http://www.dft.gov.uk/ha/standards/>).
- 2.2 The Welsh Assembly Government logo and name appear on the title page of The Design Manual for Roads & Bridges:

<http://www.dft.gov.uk/ha/standards/DMRB/vol11/section1/ha20008.pdf>

3. CONFIRMATION THAT ALL RELEVANT LISTED BUILDINGS DESCRIPTIONS ARE INCLUDED IN THE APPENDIX TO DAVID BONNER'S PROOF

- 3.1 I can confirm that the Listed Buildings assessed in the Updated ES are all contained within Appendix 4 to my Proof. One additional building (Camlad House) is referred to below, the Listed Building description for this is set out in Appendix 1 to this document.

4. CONSIDERATION OF WHETHER THRUST BORING UNDERNEATH MG062 AND MG063 WOULD BE ACCEPTABLE

- 4.1 In my considerable experience of under-passing of linear heritage assets and general observation of under-passing during construction of major infrastructure projects, I would make the following observations:

4.1.1 In general terms, an underpass is preferable to an open-cut trench, on account of the fact that the latter would have potentially irreversible, direct effects upon any previously unknown below-ground physical remains, whereas the former is a means of avoidance mitigation (over the length of the underpass).

4.1.2 One does, however, need to factor in the likelihood that the 'entrance' and the 'exit' pits are likely to be considerably larger than the cable trench to

accommodate the under-passing equipment and also to create a safe working environment for anyone operating the equipment.

- 4.1.3 The underpass would need to have sufficient cover below the base of the ditch to ensure the integrity of the ditch deposits. This 'buffer' might be as much as one metre. The size of the ditch almost certainly varies along its course, but judging from the surviving banks in the more elevated sections, it seems reasonable to assume that the deepest ditch sections might be at least 1-2m deep. This means that an underpass might be required at a depth of 2-3m below ground surface.
- 4.1.4 The pits will generate a large volume of excavated soil which will raise soil handling challenges. The additional soil will either require a widened horizontal working area for storage on-site or removal for temporary storage off-site. On-site storage areas, as with the working area, would almost certainly need stripping and 'benching' into the hillside to create a safe working area and to ensure the integrity of soil storage against being washed away down slope. This raises concerns over reinstatement.
- 4.1.5 Cadw would need to be consulted and SMC granted depending upon the location of an underpass in relationship to the SAMs.
- 4.1.6 In principal, Cadw may favour an underpass compared to open-cut. Concerns may be raised over having a live service beneath a SAM (or close to it), on account of the potential for the use of emergency powers of repair (which I understand supersedes the Ancient Monuments Act).
- 4.1.7 Under-passing requires additional specialist, heavy equipment, thereby increasing the amount of 'kit' moving in and out on the road network.
- 4.1.8 Finally, in terms of comparison of undergrounding combined with under-passing against over-sailing, I would lean strongly towards the latter, on account reversibility and significantly reduced risk of direct permanent impacts on physical remains.

5. **CONFIRMATION OF THE ASSESSMENT MADE IN THE UPDATED ES REGARDING PARTICULAR LISTED BUILDINGS ("LB") NOTED DURING SESSION 3**

5.1 **Edderton Hall**

5.2 The Updated ES identifies this LB as being of 'High' value and with a 'Minor' magnitude of effect producing an overall significance of effect of 'Moderate/Slight' – this being not significant.

5.3 The significance of Edderton Hall is attributed to it being:

'a fine example of a Regency style house exploiting a commanding position' (Cadw 2008).

5.4 Other key points about Edderton Hall of relevance to the Llandinam Scheme are as follows:

5.4.1 Its hilltop location overlooking the Severn valley is deliberately planned.

5.4.2 The house has a clearly defined setting which includes the hill it occupies, all the land lying to the N and NE to the A490 and to the NW up to the River Severn.

- 5.4.3 The most important views to/from Edderton Hall are to the NW across the floodplain of the River Severn to Powys Castle.
- 5.5 The key considerations in terms of potential adverse effects are as follows:
- 5.5.1 The Llandinam Scheme will have no direct physical effect upon the fabric of the listed building itself.
- 5.5.2 The Llandinam Scheme crosses at least one kilometre of the setting and this will become changed for the lifetime of the Llandinam Scheme. This might arguably be a 'Moderate' effect but this effect is reduced to no greater than 'Minor', on account of a) the technology choice, material and elevation, b) the estate having long been broken up and c) the fact that the setting already accommodates a pole mounted overhead (albeit of low voltage) in the vicinity of the Llandinam Scheme.
- 5.5.3 In terms of visual effects, distant views from the Hall are not interrupted by the Llandinam Scheme and are already significantly compromised by the modern town of Welshpool. Views to the hall which take in the Llandinam Scheme are very limited. The overall effect of the Llandinam Scheme upon these views is negligible.
- 5.5.4 Inter-visibility with Powys Castle is unaffected.
- 5.5.5 Locally, the house has potential views of the Llandinam Scheme where it passes in front of the house. However, a combination of landform and woodland to the N and W restrict views of the Llandinam Scheme to a narrow angle between the dingle and the lake. In this area, only two poles are proposed and these are back-dropped against trees and located over 300m away down-slope. The effect of the Llandinam Scheme upon this view is negligible.
- 5.6 On balance, taking into account all of the potential effects, and those attributes which contribute to the building's significance, the magnitude of effect is likely to be in the range of negligible to minor. The resulting significance of effect is 'Slight' or 'Moderate/Slight' (i.e. potentially less than that predicted by the Updated ES). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.
- 5.7 **Holy Trinity Church**
- 5.8 The Updated ES identifies this LB as being of 'High' value and with a 'Moderate' magnitude of effect producing an overall significance of effect of 'Moderate/Large' – this being significant.
- 5.9 The significance of Holy Trinity Church is attributed to it being:

'one of the best examples of a Victorian Estate church in Wales', 'its architectural language', 'interior fittings' and 'one of the showpiece buildings of the Leighton Estate' (Cadw 2008).
- 5.10 Other key points about Holy Trinity Church of relevance to the Llandinam Scheme are as follows:
- 5.10.1 The church is intentionally placed away from other estate buildings on a distinct, naturally-flat area towards the edge of the floodplain with commanding views across the River Severn valley.

- 5.10.2 The church benefits from an extensive setting represented by the Leighton Farm estate, which includes not only the elevated land on the east side of the valley but might arguably also include the farmed land upon the floodplain.
- 5.10.3 The most important views to/from the church are to the NW, W and SW across the floodplain of the River Severn.
- 5.10.4 The church is intimately connected to the estate and all the buildings
- 5.11 The key considerations in terms of potential adverse effects are as follows:
- 5.11.1 The Llandinam Scheme will have no direct effect upon the fabric of the listed building itself.
- 5.11.2 The Llandinam Scheme crosses one to two kilometres of the setting and this will become changed for the lifetime of the Llandinam Scheme. This might arguably be a 'Moderate' effect but this effect is significantly reduced to no greater than 'Minor', on account of a) the technology choice, material and elevation, b) the floodplain agricultural component of setting is far from intact, retaining few hedgerows, c) the modern expansion of Welshpool and particularly the encroachment of its industrial estates and sewage works down onto the floodplain, d) the fact that the setting already accommodates a sub-station and several sets of pole-mounted overhead lines (i.e. the church's setting is heavily compromised and the Llandinam Scheme will not introduce a new infrastructure type), and e) the agricultural buildings of Lower Leighton Farm.
- 5.11.3 In terms of visual effects, the distant views are unlikely to be interrupted by the Llandinam Scheme, which is located at least 350m away and is 'visually permeable'.
- 5.11.4 Views are already significantly compromised to the N by Lower Leighton Farm and to the NW by the modern town of Welshpool. The effect of the Llandinam Scheme upon these views is negligible.
- 5.11.5 Inter-visibility with key estate buildings is unaffected.
- 5.11.6 Locally, the church has potential views of the Llandinam Scheme across a wide angle of view, interrupted only occasionally by trees. This also raises potential for views to the church to be adversely affected by the Llandinam Scheme, but such views are frequently interrupted by existing O/H lines and telegraph poles. The overall effect of the Llandinam Scheme upon these views is Minor.
- 5.12 On balance, taking into account all of the potential effects, and those attributes which contribute to the building's significance, the magnitude of adverse effect is likely to be Minor. The resulting significance of effect is 'Moderate/Slight' (i.e. potentially less than that predicted by the Updated ES). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.
- 5.13 **Cefn Bryntalch Hall**
- 5.14 The Updated ES identifies this LB/RP&G as being of 'High' value and with a 'Minor' magnitude of effect producing an overall significance of effect of 'Moderate/Slight' – this being not significant.
- 5.15 The significance of Cefn Bryntalch Hall is attributed to it being:

'a well preserved example of G.F. Bodley's work in domestic architecture' and 'of considerable historic interest as being the home of the composer Peter Warlock' (Cadw 2008).

- 5.16 Other key points about Cefn Bryntalch Hall of relevance to the Llandinam Scheme are as follows:
- 5.16.1 Located in a sheltered position near the top of a wooded hill which overlooks the Severn Valley and also benefits from views to the SE down a narrow valley towards Llandyssil.
 - 5.16.2 The house is surrounded by contemporary gardens and collectively is a Registered Park & Garden which incorporates a motte and bailey castle.
 - 5.16.3 The RP&G has a clearly defined setting and 'essential' setting and also benefits from an extensive broader landscape context which includes the Severn Valley and the valley to the SE to Llandyssil.
 - 5.16.4 The critical views into the RP&G are from the N and SW.
- 5.17 The key considerations in terms of potential adverse effects are as follows:
- 5.17.1 The Llandinam Scheme will have no direct effect upon the fabric of the listed building itself.
 - 5.17.2 The Llandinam Scheme crosses the narrow valley, approximately one kilometre to the SE of the RP&G. The effect upon setting would be 'Negligible, on account of a) the technology choice, material and elevation b) the Scheme does not cross the RP&G nor its essential setting, and instead crosses its broader landscape context, and c) the landscape already incorporates pole-mounted overhead lines (albeit of low voltage) in the vicinity of the valley crossing.
 - 5.17.3 In terms of visual effects, the distant views down the valley are unlikely to be interrupted by the Llandinam Scheme, due to a) the technology choice, material and elevation and b) distance of the Llandinam Scheme (one kilometre away).
 - 5.17.4 Inter-visibility with key sites is unaffected.
 - 5.17.5 There are no local views of the Llandinam Scheme.
- 5.18 On balance, taking into account all of the potential effects, and those attributes which contribute to the RP&G's/building's significance, the magnitude of effect is likely to be in the range of 'Negligible' to 'Minor'. The resulting overall significance of effect is 'Slight' to 'Moderate/Slight' (i.e. potentially less than that predicted by the Updated ES). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.
- 5.19 **The former Workhouse (Brynhyfryd Hospital or Camlad House) (now a Buddhist retreat) (see Appendix 1 below)**
- 5.20 The Updated ES does not list or examine this particular LB on account of it being Grade II and considered unlikely to be subject to adverse effects by the Llandinam Scheme.
- 5.21 The significance of the former Workhouse is attributed to it being:

'a fine example of a later C18 public building' and 'designed by a leading architect in the field' (Cadw 2008).

5.22 Other key points about the former Workhouse of relevance to the Scheme are as follows:

5.22.1 Located on elevated land on the north side of the Camlad valley, not far from the confluence of the Camlad and the River Severn.

5.22.2 The railway passes in a cutting approximately 100m to the east.

5.22.3 The house benefits from open views to the NW, W and SW, and has very limited views into the Camlad valley to S.

5.22.4 There is woodland to the E in the vicinity of the Oswestry & Newtown Railway line and beyond to the NE is a caravan park.

5.22.5 The setting of the house includes the elevated land it occupies and the slopes down to the Camlad

5.23 The key considerations in terms of potential adverse effects are as follows:

5.23.1 The Llandinam Scheme will have no direct effect upon the fabric of the listed building itself.

5.23.2 The Llandinam Scheme passes over 600m to the SE and E of the house. The effect of the Llandinam Scheme upon setting would be 'Negligible, on account of a) the technology choice, material and elevation b) the Llandinam Scheme does not cross the immediate setting, and instead crosses its broader landscape context, c) the setting is severed on its E side by the Oswestry & Newtown Railway line, and d) the landscape already incorporates pole-mounted overhead lines (albeit of low voltage) in the immediate vicinity of the house and a caravan park.

5.23.3 In terms of visual effects, the near and distant views into the Severn valley are unaffected. Views of the Llandinam Scheme within the Camlad valley are distant and likely to be limited. Views of the Llandinam Scheme to the E and NE are unlikely on account of woodland and dispersed trees respectively.

5.24 On balance, taking into account all of the potential effects, and those attributes which contribute to the building's significance, the magnitude of effect is likely to be 'Negligible'. The resulting overall significance of effect is 'Slight' (i.e. this outcome accords with the Updated ES excluding the LB from examination). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.

5.25 **The Leighton Hall complex of buildings (including the relationship with the Holy Trinity Church, nearby farms etc);**

5.26 The Updated ES identifies Leighton Hall RP&G as being of 'High' value and with a 'Moderate' magnitude of effect producing an overall significance of effect of 'Moderate/Large' – this being significant.

5.27 The significance of Leighton Hall complex is attributed to it being:

'an exceptional example of high-Victorian estate development', "remarkable for the scale and ambition of its conception and planning", 'consistency of design, extent of survival, and 'the most complete example of its type in Wales' (Cadw 2008).

- 5.28 The importance of the Centre is exemplified by the fact that the major original farm buildings have been listed individually, and in addition, benefit from being within a conservation area.
- 5.29 Other key points about Leighton Farm of relevance to the Llandinam Scheme are as follows:
- 5.29.1 The complex is located on elevated land towards the edge of the floodplain of the River Severn.
 - 5.29.2 The complex has a clearly defined setting and 'essential' setting and also benefits from an extensive broader landscape context which takes in elevated land on the west side of the valley and also includes the farmed land upon the floodplain.
 - 5.29.3 The critical view into the complex is from the NW.
 - 5.29.4 The estate also benefits from extensive views across, up and down the Severn Valley.
 - 5.29.5 The estate is intimately connected. The buildings are an important element of this whole ensemble. Three are worthy of individual mention:
 - (a) The former Retort House: Its significance is because 'it represents the introduction of new technology to a rural estate' and is 'a well-preserved example of a rare building type'
 - (b) Glanhafren (Great Barn): Its significance is for the exceptional quality of the C18 interiors.
 - (c) The Hawys: Its significance is for being 'subtly different' to the 'plainer brick labourers' dwellings', and thereby it 'expresses the hierarchy of estate buildings' (Cadw 2008).
- 5.30 The key considerations in terms of potential adverse effects are as follows:
- 5.30.1 The Llandinam Scheme will have no direct effect upon the fabric of any of the listed buildings themselves.
 - 5.30.2 The Llandinam Scheme crosses the Severn Valley floodplain, approximately 300-500m from the west edge of the RP&G. The effect upon setting would be 'Minor, on account of a) the technology choice, material and elevation b) the Llandinam Scheme does not cross the conservation area, c) the Llandinam Scheme does not cross the RP&G nor its essential setting, and instead crosses its broader landscape context, and d) the floodplain agricultural component of setting is far from intact, retaining few hedgerows, e) the modern expansion of Welshpool and particularly the encroachment of its industrial estates and sewage works down onto the floodplain, f) the modern agricultural buildings of Lower Leighton Farm, g) the fact that the setting already accommodates a sub-station and several sets of pole-mounted overhead lines (including both low and high voltage) (i.e. the estate's setting is heavily compromised and the Llandinam Scheme will not introduce a new infrastructure type).
 - 5.30.3 The Llandinam Scheme crosses the settings of the former Retort House and the Hawys. The effect is considered 'Minor' and 'Negligible' respectively, on account of the reasons listed above in item 2a, d, e, and g.

- 5.30.4 In terms of visual effects on the RP&G, the distant views are unlikely to be interrupted by the Llandinam Scheme, which is located at least 300m away and is 'visually permeable'.
- 5.30.5 Views out are already significantly compromised to the N by Lower Leighton Farm and to the NW by the modern town of Welshpool. The effect of the Llandinam Scheme upon these views is negligible.
- 5.30.6 Inter-visibility with key estate buildings, including the former Retort House and the Hawys is unaffected. Glanhafren is an exception, however, as it lies on the west banks of the Severn beyond the Llandinam Scheme. This adverse effect is 'Negligible'.
- 5.30.7 Inter-visibility with Powys Castle in respect of its critical view from the SW is unaffected.
- 5.30.8 The Llandinam Scheme may have cumulative effects with existing pole-mounted infrastructure. Such effects may slightly increase these adverse effects upon the critical view from the NW into the estate.
- 5.31 On balance, taking into account all of the potential effects, and those attributes which contribute to the estate's significance, the magnitude of adverse effect is likely to be Minor. The resulting significance of effect is 'Moderate/Slight' (i.e. potentially less than that predicted by the Updated ES). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.
- 5.32 **The view from the Grade I tower**
- 5.33 The Updated ES identifies Leighton Hall Tower as being of 'High' value and with a 'Minor' magnitude of effect producing an overall significance of effect of 'Moderate/Slight' – this being not significant.
- 5.34 The significance of Leighton Hall Tower is attributed to it being:

'a robustly detailed exercise in romantic Gothic which is an architectural tour-de-force in its own right, and a highly picturesque focal point in the layout at Leighton Hall' (Cadw 2008).
- 5.35 The key considerations in terms of views to/from the tower are as follows:
- 5.35.1 Local views from the A490, B4388 and land on the east side of the river into the estate.
- 5.35.2 Mid distance views from the west side of the river, and
- 5.35.3 Long distance views from elevated land on the west side of the valley, in particular from Powys Castle.
- 5.36 The key considerations in terms of potential adverse effects on views to/from the tower are as follows:
- 5.36.1 The Llandinam Scheme crosses the Severn Valley floodplain, approximately 850m from the tower.
- 5.36.2 Views to/from the tower are obscured by numerous, dispersed parkland trees.

- 5.36.3 The intervening landscape already accommodates several sets of pole-mounted O/H lines (including both low and high voltage) and a set of telegraph poles run along the B4388 directly in view from the tower.
 - 5.36.4 Views of the tower from the B4388 are unaffected.
 - 5.36.5 Mid and long distance views in/out are unlikely to be affected by the Llandinam Scheme on account of a) the technology choice, material and elevation (i.e. the Llandinam Scheme is 'visually permeable'), and b) the long distance and floodplain location of the Llandinam Scheme.
 - 5.36.6 Mid and long distance views are already significantly compromised by existing overhead infrastructure upon the floodplain
 - 5.36.7 Inter-visibility with Powys Castle is unaffected.
- 5.37 On balance, taking into account all of the potential effects, and those attributes which contribute to the tower's significance, the magnitude of adverse effect in respect of views is likely to be 'Negligible'. The resulting significance of effect is 'Slight' (i.e. potentially less than that predicted by the Updated ES). Such an effect would not be significant and in policy terms would be 'Less than Substantial Harm'.

APPENDIX 1

Community: Forden (Powys)

Locality: Thornbury

Name: Bryn Hyfred Hospital (SE side of road)

Grade: II

Cadw ref: 16183 [NC]

+NGR: SJ216600083

Located on a minor road from Forden village, leading to Thornbury township, and approximately 1500m SE of Forden church.

History: Designed by Joseph Bromfield, architect in 1794 as a House of Industry serving the Montgomery and Welshpool districts, at a cost of œ12000 to accommodate 1000 persons. Subsequent alterations and additions in the C20.

Exterior: Built of red brick in Flemish bond and with slate roofs. Three storeys, the main front facing NW and symmetrical, with a centre block of 9 window bays, and 3-bay end wings slightly set forward, and extending as wings to the rear, each of 5 bays on the inner face. The roofs of the wings are hipped. The main front has a central round-headed entrance doorway with plain pilasters swept out to form brackets for the open pediment. Double panelled doors with overlight. Windows are 12-pane sashes to ground floor, 9-pane to floors 2 and 3, all now horned. Rubbed flat brick arches and stone sills. Inserted doors in bays 2, 5, 11 and 14, with glazed doors. Brick dentilled eaves. The fenestration of the wings is of a similar small pane type. Shallow projections added in the late C19 on the outer faces. The NE wing has C20 raking brick buttresses. Connected to each end of the main block is a 2-storey pavilion block, each with a hipped roof and connected to the main building by corridors. The left block has a 3-bay front, 6-panes to the upper windows, and 12-panes to the ground floor, the other windows are mostly modern. Single storey brick extensions to the NE and rear. The right hand block, containing the theatre for dramatic performances, has recent glazing; 3 windows to the upper floor and broad opening with stone architrave and glazed doors to the ground floor. Projection to the rear.

Interior: The interior has been altered to serve hospital requirements.

Reason: Included as a fine example of a later C18 public building to meet the requirement of the Poor Law Acts, and designed by a leading architect in the field.

References:

Haslam R, 'Powys' Buildings of Wales series, 1979, pp 102-103

First listed 4/15/94 , last amended 3/20/98