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**Sent:** 03 February 2016 15:13  
**To:** Brechfa Connection  
**Subject:** RE: Brechfa Forest Connection

Following on from the email on the 1st Feb, please find attached a copy of the local impact report Carmarthenshire County Council supplied to the IPC regarding the Brechfa West site during the planning application.

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**Carmarthenshire County Council**

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## **Local Impact Report**

**An Application for Development Consent Order for the Construction and Operation of 28 Wind Turbine Generators of up to 145 metres in Height with an Installed Capacity of Between 56 and 84 Megawatts and Other Infrastructure Integral to the Construction and/or Operation of the Wind Farm.**

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## List of Acronyms and Other Abbreviations Used in the Local Impact Report

<b>The Act</b>	Planning Act 2008
<b>AM</b>	Amplitude Modulation
<b>AOD</b>	Above Ordnance Datum
<b>The Applicant</b>	RWE Npower Renewables
<b>BAP</b>	Biodiversity Action Plan
<b>BFW</b>	Brechfa Forest West
<b>CCW</b>	Countryside Council for Wales
<b>CMI</b>	Cambrian Mountain Initiative
<b>CMS</b>	Construction Method Statement
<b>CUDP</b>	Carmarthenshire Unitary Development Plan
<b>The Council</b>	Carmarthenshire County Council
<b>DAS</b>	Design and Access Statement
<b>DCO</b>	Development Consent Order
<b>dB(A)</b>	Decibels measured on a sound level meter, incorporating a frequency weighting
<b>EA</b>	Examining Authority
<b>EAW</b>	Environment Agency Wales
<b>FCW</b>	Forestry Commission Wales
<b>FDP</b>	Forest Design Plan
<b>FTE</b>	Full Time Equivalent
<b>EIA</b>	Environmental Impact Assessment
<b>ES</b>	Environmental Statement
<b>Ha</b>	Hectares
<b>HMP</b>	Habitat Management Plan
<b>IPC</b>	Infrastructure Planning Commission
<b>LCA</b>	Landscape Character Area
<b>LDP</b>	Local Development Plan
<b>LIR</b>	Local Impact Report
<b>NPS</b>	National Policy Statement
<b>NSIP</b>	Nationally Significant Infrastructure Project
<b>Para</b>	Paragraph
<b>PAMP</b>	Public Access Management Plan
<b>PROW</b>	Public Right of Way
<b>ROWIP</b>	Rights of Way Improvement Plan
<b>S.106</b>	Section 106 Agreement – Town and Country Planning Act 1990 (As Amended)
<b>SAM</b>	Scheduled Ancient Monument
<b>SAC</b>	Special Area of Conservation
<b>SLA</b>	Special Landscape Area
<b>SoCC</b>	Statement of Community Consultation
<b>SSA G</b>	Strategic Search Area G
<b>TMP</b>	Traffic Management Plan
<b>WAG</b>	Welsh Assembly Government
<b>WG</b>	Welsh Government
<b>ZTV</b>	Zone of Theoretical Visibility

## A CONTEXT

### 1.0 INTRODUCTION

- 1.1 RWE Npower Renewables (the applicant) have applied to the Infrastructure Planning Commission (IPC) for a development consent order (DCO) to construct and operate a wind farm within the Brechfa Forest, Carmarthenshire. The scheme is referred to as 'Brechfa Forest West' (BFW) wind farm
- 1.2 The applicant proposes to construct and operate an onshore wind farm with an installed electricity generation capacity of between 56 and 84 megawatts. The components of the proposed development comprise the construction and operation of 28 wind turbine generators of up to 145m in height, along with other infrastructure integral to the construction and/or operation of the wind farm.
- 1.3 Brechfa Forest West wind farm is categorised as a Nationally Significant Infrastructure Project (NSIP) as it is an onshore electricity generating station with an installed capacity of more than 50 megawatts. It is therefore defined as a NSIP according to the definition contained in Section 14 and 15 of the Planning Act 2008. The Act requires that in order to authorise construction and operation of such a generating station an application must be made the IPC under Section 37 of the Planning Act 2008.
- 1.4 At the time of writing this Local Impact Report the IPC was in the process of being integrated into the Planning Inspectorate and it is understood that its title will change to the National Infrastructure Directorate. On this basis further references to IPC throughout this report should have regard to the imminent name change. The new body will be responsible for making a recommendation on this proposal to the relevant secretary of state. At present the relevant government department that would make this decision would be the Department of Energy and Climate Change.
- 1.5 Under the Planning Act 2008, the Local Authority in which the proposal is located is a significant statutory consultee whose involvement in the process is both consultative and informative. Carmarthenshire County Council (the Council) has undertaken extensive pre-application discussion with the applicant in respect of advising what information is required to accompany the application, as well evaluating the local impacts of the proposed scheme prior to formal submission. The Council has also provided formal representations regarding the statement of community consultation (SoCC) in accordance with S.48 of the Act, as well as providing representations to the IPC regarding the adequacy of the consultation carried out by the applicant (S.55 of the Act).
- 1.6 The IPC strongly encourages Local Authorities to produce and submit a Local Impact Report (LIR) at the Examination stage of the process. The sole definition of an LIR is given in s60(3) of the Act as a '*report in writing giving details of the likely impact of the proposed development on the authority's area (or any part of that area)*'
- 1.7 This document comprises the Council's Local Impact Report and has been prepared in accordance with the above definition and in line with *IPC Advice Note One: Local Impact Reports (March 2010)*.

- 1.8 The Council's LIR has been prepared by the Planning Services Division with professional input from officers of the Council specialised in ecology, landscape and conservation, public access / recreation, noise and tourism. LIR also contains inputs from specialist consultants in the areas of noise, transport, shadow flicker, landscape and tourism.
- 1.9 The purpose of the LIR is for the Council to advise the IPC on what local impacts it considers the proposed development will have on the local area by reference to specific issues. Details of how negative impacts can be overcome and mitigated for will be provided where relevant. The LIR will also appraise the proposed development's compliance with local planning policy and guidance and offer views on the Development Consent Order provisions, requirements and obligations.
- 1.10 The report has been structured into a logical format whereby an initial section on 'Context' (Part A) will provide details of the proposal and information about the area and environs in which it is proposed to be located. Details of existing and proposed wind farm developments and how these relate to the proposal will also be provided.
- 1.11 Part B of the LIR will describe the Impacts of the proposal on the local area by focusing on specific issues such as noise, landscape and ecology etc. In accordance with IPC guidance the Council intends to describe whether the impacts of the wind farm in relation to each issue have positive, negative or neutral effects. The Council has had the opportunity to engage with the local community regarding the potential impacts of the proposal and these will be described where relevant.
- 1.12 Part C of the LIR will carry out an assessment of the proposal against the Council's planning policies contained within the Unitary Development Plan, along with commentary of the proposal's relationship with national planning policies.
- 1.13 Part D of the LIR covers the key aspects of the draft Development Consent Order (DCO), these being the Provisions, Requirements and Obligations. The Council will indicate whether it agrees with what has been provided in the draft DCO and where necessary suggestions for amendments and additional matters to be covered will be provided giving reasons why.
- 1.14 The final section of the LIR (Part E) will provide a summary of the impacts and assessments detailed in the LIR for the benefit of the Examining Authority. However a balancing exercise will not be carried out, as this is the responsibility of the IPC. The LIR will contain diagrams, maps, tables and other interpretation material to support the written content of the report.

## 2.0 DESCRIPTION OF APPLICATION SITE AND SURROUNDINGS

### Site Characteristics

- 2.1 The application site comprises a large irregular parcel of land covering an area of approximately 1041ha, located within the Brechfa Forest, approximately 10km northeast of Carmarthen, Carmarthenshire. The site comprises two distinct physical components, namely a long 'finger' of privately owned farmland, which extends from the north western periphery of the main body of the site, a large area of commercial forestry owned by the Welsh Government and managed by the Forestry Commission Wales. The elevation of the site ranges from 200mAOD adjacent to the proposed site access to 358mAOD at Mynydd Rhos-wen.
- 2.2 The site is within the Cambrian Mountains Landscape Character Area (LCA). The landscape of Wales has been characterised by the Countryside Council for Wales (CCW) at a national level into a series of LCAs, which are shown on the Landscape Character Map for Wales (Land Use Consultants and Sheffield University for CCW, 2007). These LCAs provide baseline information against which, effects can be assessed.
- 2.3 The Cambrian Mountains LCA is described below:

*The Cambrian Mountains is a belt of wild and relatively remote moorland landscape orientated in a north - south direction. This landscape is characterised by landform of extensive undulating plateau and incised valleys. Its upland landscape is large in scale and includes high summits such as Pumlumon. Such elevated summits provide extensive panoramic views across and beyond this LCA. Glacial features are evident throughout in the form of U-shaped valleys, corries, tarns and moraines. The Cambrian Mountains to the north provide a transition to the upland moorland landscape of LCA 16 Y Berwyn. Sheep grazed open moorland land cover predominates this LCA with some bracken scrub, wind blown oaks, coniferous forest plantations and upland blanket bog. The valley edges of this LCA give way to pastoral fields bound by hedges and woodland. Man-made reservoirs and dams are located within valleys. There is a dense pattern of historic features and elements throughout in the form of funerary and ritual monuments. LANDMAP notes attractive and panoramic views within and out with this landscape.*

### Existing Land Uses

- 2.4 The area of privately owned farmland will extend from the A485 highway which connects Carmarthen to Lampeter and rise approximately 140m in gradient before connecting with the FCW managed area which is located approximately 1.5km from the aforementioned highway. The farmland is characterised by field enclosures used mainly for sheep farming.
- 2.5 The main body of the site is characterised by upland plateau covered by coniferous forest, although it is bisected by the Afon Pib. The predominant land use within the FCW managed portion of the site relates to commercial forestry. The land is managed according to a Forest Design Plan (FDP) which shows felling proposals for 30 years and future proposed species restocking. FCW propose to update the current FDP covering the site if the development is approved and constructed.

- 2.6 The FCW portion of the site is dedicated open access land, whereby FCW has voluntarily dedicated that land for use for public access under the Countryside and Rights of Way Act (CRoW) 2000. The site is therefore popular with walkers, cyclists and horse riders. Off road 4x4 and motocross events have also been given permission to take place within the site. In addition to the CRoW land there are five public footpaths within the site (registered numbers 13/77, 13/83, 13/89, 13/90 and 13/91). The site therefore has a recreational dimension as well as commercial forestry.

## Surrounding Area

- 2.7 The surrounding area to the west and south west of the site marks a sudden change in terms of landscape character, as the coniferous forest plantation give way to farmland and small blocks of woodland. This area is bisected by the A485 highway which links Carmarthen in the south to Lampeter in the north. This highway passes through the settlements of Rhydargaeau, Alltwalis, Gwyddgrug, New and Llanllwni which are within 5km of the site. These villages consist of the main population centres in the environs surrounding the site. The landscape is scattered with farmsteads and occasional dwellings and typically ranges between 150mAOD and 300mAOD. A major manmade element within the area to the immediate west of the application site is the Alltwalis wind farm. This comprises a scheme of 10 wind turbines each measuring 110m to tip which has been operational since 2009. The nearest turbine extends to within 100m of the western boundary of the site, close to the forest edge. This development is described in further detail in Section 4 (below).
- 2.8 The area to the south of the site and north of the A40 highway is more varied in character comprising commercial forestry, steep valleys and small blocks of native woodland. The land use is predominantly farmland with scattered dwellings being served by a network of minor roads. The landscape undulates typically between 100m and 270m. The land begins to lower in gradient towards the A40 highway as it meets the flood plain and middle course of the River Tywi.
- 2.9 The area to the east and north east of the site mainly comprises blocks of commercial forestry managed by FCW and integrated with farmland. The applicant proposes a wind farm at the site referred to as Brechfa Forest East, some 7.5km to the east of the application site. This is currently being assessed by the Council. This site and land to its west (east of the application site) contains manmade mountain bike trails which are a popular recreation destination in the area. A major tributary of the river Tywi, the Afon Cothi also bisects this area. Topography is undulating with plateaus and incised valleys ranging from 100mAOD to 350mAOD.
- 2.10 The area to the immediate north is dominated by a landscape of heather moorland upland plateau, namely Mynydd Llanllwni and Mynydd Llanfihangel-rhos-y-corn. Mynydd Llanllwni is designated as a Special Landscape Area (SLA) as well as being common land allowing open access for recreational purposes. A wind farm is proposed to be located at Mynydd Llanllwni and currently sits with the Council for determination. It is known as Bryn Llywelyn wind farm and the applicant is RES UK and Ireland Ltd. Further details of this proposal are described in Section 4 (below).
- 2.11 A more detailed description of the surrounding landscape and its physical characteristics based on the LANDMAP GIS tool is provided at para 15.108 of Volume 1 of the ES. Local landscape designations are detailed in Figure 15.10 of the ES.

## Socio-Economic Characteristics

- 2.12 The application site straddles across three electoral wards, namely Abergwili, Llanegwad and Llanfihangel-Ar-Arth. The main site access, a construction compound and 16 of the proposed turbines are located within Llanfihangel-Ar-Arth ward, whilst the remaining 12 proposed turbines, substation, electrical compound, borrow pit and meteorological mast are located within Abergwili ward. A small portion of the site adjacent to Turbines 27 and 28 is within Llanegwad ward.

- 2.13 The socio-economic profiles of each of these wards are provided at **Appendix 2.1** of the LIR. When analysed cumulatively the three wards have low population densities ranging from 17 to 38 people per km<sup>2</sup> and a total population of 7,737 (mid 2009 estimates) distributed over an area of approximately 300km<sup>2</sup>. There are no statistics regarding the employment sectors that operate over the three wards although it is strongly assumed that farming is the dominant employment sector. Furthermore, survey statistics obtained by RES in relation to their Tourism Analysis that accompanies the Bryn Llywelyn wind farm, indicate that B&Bs and holiday let accommodation number in the region of 600 – 700 bed spaces. More varied accommodation is provided at caravan and tent sites. This suggests a number of businesses connected with tourism.

### Regeneration Designations

- 2.14 The three wards are all covered by the Rural Development Plan (RDP) for Wales 2007-2013. This plan will enable the Welsh Government to deliver activities which support the countryside and rural communities. It was formally approved by the European Commission's Rural Development Committee on 20 Feb 2008. The plan has a total budget of £795 million with £195 million coming from the European Agricultural Fund for Rural Development (EAFRD). The Rural Development Plan (RDP) for Wales 2007-2013 covers four areas of activity. These are:
- agriculture and forestry
  - environment and countryside
  - quality of life in rural areas
  - locally based approaches to rural development
- 2.15 The three wards are also within the Cambrian Mountain Initiative (CMI) area. Further details of the CMI and the area it covers are contained at **Appendix 2.2**. The following is an extract from the Cambrian Mountains Community Action Plan which helps explain the Initiative's remit.

*The CMI is an integrated, sustainable development initiative that seeks to build a prosperous economic future for the communities of the region based around their inter-relationship with the special Cambrian Mountains landscape. It does this through working with farmers and producers to add value to the local produce of the mountains; by promoting the local environment and the ecosystems services that it provides in the form of carbon sequestration and water storage; the promotion of the special Cambrian Mountains landscape as a unique selling point within the tourism offer of the area; and finally through working with the necklace of settlements that surround the deeply rural upland area of the mountains*

### Planning Designations

- 2.16 The application site is located within Strategic Search Area (SSA) G as defined by Technical Advice Note 8 (2005). SSA G is wholly contained within the administrative boundaries of Carmarthenshire. SSAs were identified by the former Assembly Government on efficiency and environmental grounds as the best means to deliver onshore wind power in Wales. The Assembly Government identified seven SSAs where large scale (over 25MW) onshore wind development should be concentrated. An extract from TAN 8 showing the distribution of the 7 SSAs across Wales is shown in **Appendix 2.3**. Further details regarding the geographical extent of SSA G along

with existing and proposed wind farms will be described in Section 4 and 13 of the LIR.

### 3.0 DETAILS OF THE PROPOSAL

- 3.1 The main components of the proposed development will include the proposed wind turbines; new and upgraded access tracks; construction of onsite substation, crane hard standing, external transformers, underground connecting cabling and one permanent wind monitoring mast; creation of two temporary construction compounds. Each of these will be described in further detail below:

#### Wind Turbines

- 3.2 The applicant proposes to erect 28 three bladed horizontal axis turbines with a maximum blade tip height of 145m and a hub height of 100m (according to the applicant, the tallest likely hub height for a turbine of this overall height). The applicant has not identified a specific turbine model as yet, however, for the purposes of the Noise and Vibration assessment (Chapter 16 of the ES refers), the Vestas V90 turbine has been selected. A turbine of the type indicated is likely to have blades made from fibre glass and a tower constructed using a combination of concrete and steel, or entirely steel. The blades will be attached to the hub, which in turn is attached to the main shaft that drives the generator, usually but not always via a gearbox. The generator, gearbox and a yaw drive are housed within the nacelle, which is mounted on the tower. The applicant has indicated that the final turbine selection will be dependent on a commercial tendering exercise.

#### Turbine Bases and Crane Hard standings

- 3.3 Each turbine base will comprise a steel reinforced concrete base slab measuring approximately 400m<sup>2</sup> x 1m deep with an upstand of 1m. The applicant has indicated that a typical foundation will be constructed to a depth of 2.5–3m depending on the terrain and backfilled with spoil over the foundation.
- 3.4 An area of crane hard standing of up to 1000m<sup>2</sup> will be constructed adjacent to each turbine base to enable erection of the turbines. The hard standings will be formed with aggregate laid on geotextile to a depth of at least 0.5m.

#### Transformers and Cables

- 3.5 The applicant intends to position the turbine transformers, outside of the tower, adjacent to the base of each turbine. The transformers will be contained within housing units measuring up to 6.25m x 4m and a height of 3.6m. According to the applicant the transformer dimensions and colour may vary depending on the final turbine model chosen.
- 3.6 Cables will take the electricity produced from the transformers to the onsite substation (see below). Approximately 34.5km of underground cabling will be required. These will be 33kv in specification and run parallel to the access tracks where practicable, in trenches to a depth of approximately 0.9m and width of 0.6m (for a single cable array) to 2.7m (for a four cable array). Figure 3.2 of the ES provides an illustrative detail of the proposed specification.

### **Substation Compound and Control Building**

- 3.7 The proposed substation will be located approximately 100m from Turbine 12 and in the south east portion of the site. The substation will consist of an enclosed compound of approximately 4080m<sup>2</sup>. A control building housing switchgear and control equipment will be located within the compound. A specification of the building has been provided by the applicant. The proposed structure will measure approximately 10m (W) by 25m (L) by 5m (H).

### **Meteorological Mast**

- 3.8 One meteorological mast is proposed within the site boundary. This will be held in place by guy ropes and positioned on a hard standing measuring approximately 1000m<sup>2</sup>. The proposed mast will record wind speed, wind direction and temperature.

### **Site Access**

- 3.9 The delivery of the turbine components and other construction parts and machinery relating to the proposed wind farm site will leave the M4 at Junction 49 and travel north-northeast on the A48 towards Carmarthen. At Carmarthen, vehicles will then travel north on the A485 for approximately 16km before turning off the existing highway network onto a new proposed vehicular access track.
- 3.10 The new vehicular access will be located approximately 180m to the north east of the existing access track used during the construction of the Alltwalis Wind Farm. This track currently provides access for maintenance vehicles relating to the wind farm. The proposed vehicular access will be located approximately 25m and 40m respectively, from the residential dwellings at Llwynwalter and White Hart. Veindre Parc, a residential dwelling to the north east will be located approximately 100m away.
- 3.11 The proposed access will require the removal of mature trees in order to create the required bell mouth and splay at the junction with the A485. The alignment of the proposed track will cross approximately 2km of virgin farmland before reaching the forest edge. The specification and dimension of the proposed track is detailed at para 3.12. The proposed track and site access will provide the main construction access off the County road network. The Council will consider the proposed environmental and engineering impacts of the proposed access and track in section 5, 7 and 8 of the LIR.

### **Access Tracks**

- 3.12 The proposed wind farm will require the construction of 9.1km of new onsite access tracks, whilst 12.7km of existing tracks will be upgraded, in order to accommodate delivery of the scheme's components to the turbine locations. New and existing tracks will have a typical minimum running width of 5m on straight sections, with wider curves at bends and bellmouths. The total width of the tracks will be 7m which will take into account 1m shoulders either side and surfaced with crushed stone. The tracks will be constructed in accordance with the specification set out in the Forestry Civil Engineering Handbook (incorporating the Department for Transport's Design Manual for Roads and Bridges).

### **Drainage**

- 3.13 Drainage measures will be incorporated into the design of the new and upgraded tracks to prevent the discharge of drainage water with a high sediment load into adjacent watercourses.

### **Watercourse Crossings**

- 3.14 Although the applicant states in the ES (para 3.41) that no new water crossings are required at the site, culverts may be required at watercourse channels not identified by the applicant during the site survey. The existing culverted water crossings will be extended or replaced during the construction period.

### **Borrow Pit**

- 3.15 It is proposed to establish a Borrow Pit for the extraction of stone. The Borrow Pit will be approximately 10,000m<sup>2</sup> by 6m depth. This is located adjacent to roughly in the centre of the site. The applicant proposes to use the stone extracted from the Borrow Pit for the construction of the access roads.

### **Temporary Construction Compounds**

- 3.16 Two temporary construction compounds are proposed, each having an area of approximately 2500m<sup>2</sup>. One will consist of a civil compound and will include an enclosed hard standing containing a temporary office and staff welfare buildings. The other will be an electrical compound.

### **Off Site Access Works**

- 3.17 The transportation of turbine infrastructure to the site will require some off site works. These are detailed at Appendix 3.4 of the ES and will include the removal of vegetation and the creation of a temporary hard standing over-run area at specific locations along the construction route.

### **Micrositing**

- 3.18 The applicant proposes to set micrositing tolerances for the proposed wind turbines, along with other infrastructure components of the development e.g. access tracks, substation, electrical compound. Full details of the components subject to micrositing or 'Limits of Deviation' for the purposes of the DCO are listed at BFW.AppDoc3.DCO and shown on plan at BFW\_PLAN02\_Worksplan\_Key (and 01 – 05).
- 3.19 This provision in the DCO would allow the developer to move turbine locations or underground cables for example if ground conditions were unsuitable at the exact locations specified on plan. The applicant states in para 3.91 of the ES that '*micrositing would be used to allow adjustment within a defined radius of the indicative turbine and infrastructure locations (up to 50m)*'. However the submitted drawings (ref: BFW\_PLAN02\_Worksplan\_01 to) show the proposed limit to deviate as being 60m for the turbines and approximately 90m in relation to the on-site borrow pit. The IPC will need to be satisfied with these dimensions and the justification given.

### **Grid Connection**

- 3.20 The applicant has indicated that a new electricity grid connection is required to supply the electricity produced by the proposed wind farm at Brechfa Forest West to the grid network at Swansea North Substation, located approximately 34.7km southeast of the wind farm. The applicant states that it is likely that the connection will be a combination of 132kV overhead line on wooden poles and 33kV underground cables to the substation within the site boundary
- 3.21 The grid connection will be subject to a separate application to the IPC under the provisions of the Planning Act 2008, although the applicant has provided details of an indicative route at Appendix 3.3 along with an assessment of impacts. Notwithstanding this the Council is not satisfied that the information provided is sufficient to comply with the EIA Directive including the indirect, secondary and cumulative effects of the grid connection.
- 3.22 It is a concern that no alternatives for the grid connection have been considered as the most direct and economical route has been presented. Furthermore the wind farm has been developed on the basis that the grid connection is assumed to be to the south.

### **Construction Programme**

- 3.23 The Applicant anticipates that construction of the wind farm will be completed over a 22 month period, with 4 months of ground clearance and preparation and 18 months of wind farm construction. The applicant has indicated that a period of felling will also take place before the construction programme and will be undertaken by FCW staff and contractors. A timetable of the construction programme is referred to at Figure 3.5 in the ES.
- 3.24 A draft Construction Method Statement (CMS) has been prepared by the applicant (see Appendix 3.1). The draft CMS details measures to avoid or mitigate potential impacts associated with the proposed construction activities.
- 3.25 The applicant estimates that up to 150 people will be employed on the site during the construction period (post felling), which they state is equivalent of approximately 30 full time equivalent (FTE) jobs. This figure excludes the jobs that could be created by FCW during the pre-construction felling period.

### **Tree Felling**

- 3.26 As indicated above (para 3.23) a programme of tree felling will take place prior to the construction period. Permanent and temporary felled areas will be created and these are detailed in Figures 3.6a and 3.6b of the ES. The temporary areas will be required during the construction period in order to accommodate equipment. Following completion of the construction period the temporary felled areas will remain under the control of FCW for the subsequent establishment of tree crops. The permanent felled areas will be within a 47m radius of each turbine and will be leased to the applicant for the lifetime of the development. This area will remain clear of trees.
- 3.27 The applicant estimates a total felled area of 141ha, (para 12.42 of the ES refers), 49.5ha will account for the 47m cleared area around the turbines, whilst the

remaining 91.5ha will be temporary and available for subsequent replanting by FCW following construction. The felling areas around each turbine location will vary from 2.32ha to 11.57ha in extent, with an average of 4.20ha.

### **Operational Details**

- 3.28 The proposed wind farm is designed to have an operational life of 25 years and during this period it is proposed to carry out ongoing maintenance of the access tracks and twice yearly scheduled maintenance of each turbine. The applicant estimates up to 4-5 full time equivalent (FTE) jobs will be required to operate the wind farm over its operational lifetime.

### **Decommissioning**

- 3.29 At the end of the 25 year operational life of the wind farm, unless further planning permission is sought, the turbines will be dismantled and removed from the site. The bases of the turbines and other above ground infrastructure (excluding access tracks) will be broken out to a depth of 1m below ground level. All cabling at a depth of less than 1000mm will be removed. The applicant states that any cabling at a depth of more than 1000mm will be made safe and either left in place or removed depending on requirements at the time. The decommissioning period is estimated at approximately 12 months.
- 3.30 The applicant states that all access tracks will be retained for the use by FCW and recreational visitors to the site.

## 4.0 RELEVANT PLANNING HISTORY AND ANY ASSOCIATED ISSUES

- 4.1 This section of the LIR will look at the application site's relationship with existing and proposed wind farm developments within the context of SSA G. A key issue in the determination of this application is the cumulative impact these developments could have in combination with one another in terms of noise, ecological, transport, socio-economic and landscape and visual impacts. The assessment of these issues is further complicated by the two different consenting regimes operating in respect of wind farm developments i.e. IPC for NSIP over 50MW and Local Planning Authority for projects below 50MW.

### Strategic Search Area G (SSA G)

- 4.2 A map of the geographical area of SSA G is shown at **Appendix 4.1** and this should be viewed in conjunction with the plan the Council has produced at **Appendix 4.2**, which provides details of all the existing and proposed wind farm developments within the Search Area. These are described in greater detail below.
- 4.3 SSA G has been given an indicative capacity target of 90MW, whilst a maximum limit of 132MW has been applied. The Welsh Government issued a reminder of the SSA maximum capacities in a ministerial letter dated July 2012 (**Appendix 13.1 refers**), and for Local Planning Authorities to have regard to these maximum outputs when determining planning applications for wind energy developments. This should also be a consideration for the IPC and will be discussed in more detail in Section 13 of the LIR.

### Alltwalis Wind Farm

- 4.4 The Alltwalis wind farm was approved by the Local Planning Authority in 2008 and became operational in November 2009. This scheme consists of 10 turbines each measuring 110m to blade tip and having a combined installed capacity of 23MW. The plan at **Appendix 4.2** clearly shows that the application site abuts the consented site area associated with Alltwalis wind farm. The nearest Alltwalis turbine is located within 100m of the BFW site boundary, whilst the closest turbine is 368m.
- 4.5 The site access used for the delivery of abnormal loads and construction materials associated with Alltwalis wind farm is located at the entrance to Bedwhirion farm, which is approximately 180m to the south west of the proposed access relating to the Brechfa Forest West wind farm. Despite the existence of the Alltwalis access, the applicant proposes to construct a new access across farmland before connecting with the main body of the application site. The submitted information shows that the alignment of the proposed access along with part of the development site straddles an area of land which has been designated for habitat enhancement under a Section 106 legal agreement associated with Alltwalis wind farm (**Appendix 4.3 refers**). This land is part of the Habitat Management Plan (HMP) therefore the applicant's proposed access will have implications on the delivery of the plan as well as legal permutations. The Council has raised these issues with the applicant, but to date no details have been provided that assure the Council that the issue can be legally resolved.

### **Bryn Llywelyn Wind Farm**

- 4.6 Bryn Llywelyn wind farm is currently being assessed by Carmarthenshire Local Planning Authority (Application Number E/23947 refers) and was registered for processing in December 2010. The LPA has requested further information from the applicant and this was duly provided in February 2012.
- 4.7 The extent of the application site is outlined in green on the SSA G map contained at **Appendix 4.2**. The applicant, RES UK and Ireland Ltd, proposes to construct 21 wind turbines with an overall blade tip height of 127m and an installed generating capacity of between 37.8-48.3MW. In terms of its relationship with Brechfa Forest West, the Bryn Llywelyn wind farm proposal immediately abuts part of its north eastern perimeter; however, the two closest turbines will maintain a distance of approximately 1,853 from one another. The closest settlements to the site are New Inn and Llanllwni to the east and are each within 2km of the western boundary.
- 4.8 The application site comprises a large expanse of grazed common land covering Mynydd Llanllwni and Mynydd Llanfihangel Rhos y Corn. These two areas of upland common are also designated as a Special Landscape Area (SLA) by the Carmarthenshire Unitary Development Plan. As the application proposes to develop parts of the common, the developer will require permissions off the Welsh Government to carry out work on the common and also to put forward a 'land swap' application.

### **Brechfa Forest East Wind Farm**

- 4.9 A further proposal for a wind farm is located approximately 7.5km to the west of the application site and is referred to as Brechfa Forest East. The proposer is also RWE Npower Renewables. This was registered by the Local Planning Authority in January 2011 (Application Number E/24195 refers) and Council Officers are currently awaiting further information from the applicant for the purposes of assessment.
- 4.10 The proposed Brechfa Forest East wind farm will comprise the construction and operation of 12 wind turbines each measuring 145m to blade tip and having a combined installed generation capacity of between 24-36MW depending on the turbine model used. The majority of the site is covered by commercial conifer forest managed by Forestry Commission Wales, in addition to some pockets of private farmland, where 4 of the 12 turbines are proposed. The nearest turbine to one of those at Brechfa Forest West is approximately 7.87km. The closest village to the site is Rhydycymerau approximately 1.8km to north.
- 4.11 Whilst primarily operating as a commercial forest for logging purposes the site is also used by recreational users such as walkers, horse riders and mountain bikers.

## **B IMPACTS**

### **5.0 LANDSCAPE AND VISUAL IMPACTS**

#### **5.1 Section 42 issues unresolved in Revised ES**

The Section 42 response presented by the Council on Chapter 15 Landscape and Visual Impacts of the original draft ES identified a number of inconsistencies, disagreements and concerns in respect of the content of the document. The Consultation Report [Document reference BFW/AppDoc12/Consultation] presented a response to the Section 42 comments. The revised ES has addressed some of these issues; however it is considered that the following have not been satisfactorily addressed. The outstanding issues which the Council have with the ES are clarified and summarised below.

##### **5.1.1 Scheme Design: Turbine height**

The Council have concerns regarding the extent and significance of landscape and visual impacts of the proposed Brechfa West development.

The impacts to visual amenity and landscape character arising from the visual effects of wind turbine development occur within the zone of visibility of the turbines. The extent of the zone of visibility is directly related to the height of the turbines.

The Zone of Theoretical Visibility for the Brechfa West proposal alone; and those indicating the cumulative zones of visibility of the proposed scheme in conjunction with other turbine developments are extensive.

A decrease in the height of turbines would both decrease the extent of visibility and the magnitude of change in views of the development, and as such, would decrease both the extent and significance of the landscape and visual impacts of the proposed development.

The proposed Brechfa West turbines are 145m to blade tip. The main justification provided in the ES for turbine heights is the effects of turbulence of the forest canopy.

The Council have concerns regarding the visual compatibility of the proposed Brechfa West turbines with those of the adjacent Alltwallis Wind Farm. The proposed Brechfa West turbines are 145m to blade tip and 100m to hub. The existing Alltwallis turbines are 110.5m to blade tip and 70m to hub. ES Figure 3.8 provides a graphic comparison of both turbines. On level ground the Brechfa West turbine blade tip height would be 35m higher than the Alltwallis turbines [32% higher] and the hub height of a Brechfa West turbine would be only 10.5m lower than the blade tip height of an Alltwallis turbine.

The parts of the Brechfa West development adjacent to the Alltwallis development are located on higher ground than the Alltwallis Wind Farm, and as such the difference in relative heights will be accentuated. The relative heights above ordnance datum are presented in Table 5.1, below.

**Table 5.1: Relative heights AOD - Alltwalis and Brechfa West**

Alltwalis AOD heights are estimated from the locations of turbines relative to contours on the OS 1:25000 Explorer map.

Brechfa West AOD height are as presented in the ES [Table 3.1]

Alltwalis	Brechfa West			
Base AOD [Blade tip AOD]	Turbine	Base AOD [Blade tip AOD]	Turbine	Base AOD [Blade tip AOD]
335 [445]	13	349[494]	26	315 [460]
330 [440]	23	345 [490]	12	308 [463]
330 [440]	18	343 [488]	15	312 [457]
320 [430]	24	341[486]	22	311 [456]
320 [430]	17	339 [484]	5	309 [454]
320 [430]	19	336 [481]	27	308 [453]
315 [425]	8	329 [474]	16	307 [452]
310 [420]	14	325 [470]	6	302 [457]
305 [415]	4	324 [469]	2	306 [451]
300 [410]	9	322 [467]	28	306 [451]
	20	322 [467]	10	303 [448]
	21	322 [467]	7	294 [449]
	25	318 [463]	11	292 [447]
	3	316 [461]	1	287 [442]

The table demonstrates the following points: -

- Blade tip heights of all but one of the Brechfa West turbines are higher than the highest Alltwalis blade tip.
- The nearest Brechfa West turbines to the Alltwalis development [3, 4, 8, 9, 13, 14, 17, 18, and 19] are amongst the highest within the proposed development.
- The highest Brechfa West turbine [turbine 13 at 494m] would have a blade tip 49m higher than the highest Alltwalis turbine [445m] representing a 45% greater height.

In the light of the concerns of the Council in relation to landscape and visual impacts any reduction in turbine height would be welcomed. Whilst the principle of the effects of turbulence is accepted, the Council has reservations on the robustness of the evidence presented in the ES to justify the height of 145m to blade tip.

The justification for the height of the proposed Brechfa West turbines is presented in ES para 3.53. The ES does not provide details of the maximum height of the forestry upon which the turbine height specifications have been based.

Appendix 5.1 contains a copy of the paper provided by the applicant which appears to form the information upon which para 3.53 is based. Details of the source, provenance and validity of this paper are not provided.

The figure presented on page 428 of Volume 3 of the ES provides a scaled plan of the location of the Alltwalis turbines. It is evident that three of the existing turbines are located within approximately 100m of the forest edge.

The information presented in the ES on turbulence effects [para 3.53], states that '*turbulence intensity peaks at around 100-200m from the forest edge*'; in light of this observation and the apparent successful operation of the Altwalis turbines it would seem valid to question the justification of the height specification.

It would be expected that the effects of topography in the prevailing wind direction would have a role in the relative height of the forest canopy to the lowest point of the rotor; this factor does not appear to have been addressed in the ES.

It is understood that wind resource is more consistent at a higher altitude, and this could act as a driver for a developer to specify a higher turbine, in this light, it is considered that the justification of the turbine height should be robustly interrogated.

In light of para 5.9.16 of NPS EN-1; that '*the The IPC should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation*' **It is recommended that the decision maker be requested to seek appropriate advice to corroborate and validate the statements relating to turbine height and turbulence, and request further information if necessary to provide satisfactory justification that the proposed scheme has been designed carefully, and that design stage mitigation has been addressed in terms of turbine height, to minimise harm to the landscape and visual amenity.**

### 5.1.2 Scheme Design: Site Access from the A485

The Council have concerns that selection of the preferred access route has not been subject to adequate relative assessment. Three apparent feasible access options exist to the site: -

- **Access Route A** - Existing access track to the Alltwalis Wind Farm
- **Access Route B** - Access via an Unclassified Road at New Inn and existing 'Twr: Tower' entrance
- **Access Route C** - Proposed access from the A485 [ES preferred access]

Appendix 5.2 provides a comparison of the direct impacts of these routes.

#### **Access Route A:** Existing access track to the Alltwalis Wind Farm

The ES states, para 3.29. *'...The existing access track to the Alltwalis Wind Farm, which lies to the south of the proposed route was considered both at the initial stages of the project and then revisited post-consultation in May 2011. On both occasions it was not possible to reach an agreement with the landowner to secure access to the wind farm site.'*

This is the only commentary within the ES relating to this access option. The existing access to Alltwalis Wind Farm has not been addressed in the Access Report presented in Appendix 9.1 of the ES.

This access has already been constructed to allow delivery of turbine components for the existing wind farm, including turbine blades of 41m, it would be expected that the existing access would require minimal adjustment and an extension of approximately 90m [from the nearest existing Alltwalis turbine] to provide access to the Brechfa West main site boundary.

The reasons for failure to reach an agreement with the landowner for use of this access route have not been disclosed in the ES.

#### **Access Route B:** Access via an Unclassified Road at New Inn and existing 'Twr: Tower' entrance

The Access Report presented in Appendix 9.1 of the ES contains swept path analysis and description of the potential impacts of Access Route B [ES reference - Route 2]. The swept path analysis is the same as the preferred route up to the proposed access point from the A485.

The ES presents the following statement in relation to this access option: -

Para 3.31. *'These potential works included off site access works on the A485 at the S-bend at Gwyddgrug; the creation of a significant hardstanding area at the junction with the Unclassified Road; hedge trimming along the unclassified road; removal of mature trees; and redesign of the Tower access onto FCW managed land. In addition, due to the location of the turning onto the Unclassified Road within the centre of the village of New Inn, it was considered that the significant works required at this point would have a detrimental impact on the residents of the village as well as pedestrians walking through the village.'*

This represents a summary statement of the direct impacts of the unclassified road at New Inn route. The statement describes a 'significant' hardstanding area at the New Inn junction; Appendix 5.2 provides a comparison of the hardstanding requirements of Access Route B and the preferred access. Route A would require approximately 290m<sup>2</sup> of hardstanding at the New Inn junction with associated earthworks, and minor hardstanding areas along the route, all predicted to be within the highway boundary and verge. The

preferred access includes 726.5m<sup>2</sup> of gravel surfacing at the proposed bell mouth to the site entrance from the A485.

The '*detrimental impact on the residents of the village*' identified within para 3.31 has not been subject to any assessment relative to the impacts of other access options. The works do not permanently affect pedestrian routes through the village as the only existing footway is to the opposite side of the road from any works required for access.

### **Access Route C: Preferred Access**

Access Route C will require the construction of approximately 2km of new access track across existing agricultural land; this represents 22% of the total new access track and turbine spur requirements of the whole Brechfa West scheme. This new access track will run uphill towards the site boundary, parallel to the existing access track to Alltwalis, and will form a distinct visual element in views from the west and north. The 2km of track would [based upon estimates defined in the ES para 9.83] equate to 6,574m<sup>3</sup> of crushed stone.

The preferred access will require removal of 105m [minimum] of existing vegetation, including scrub vegetation to a width of 10.5m from the highway edge representing a total area of 1102.5m<sup>2</sup>. This clearance includes semi mature beech, oak and birch trees, which form existing screening to the roadside boundary.

The Council considers that the impacts of the preferred route are of a greater magnitude of significance than the other two options; and is concerned that the relative impact assessment of the proposed access has not been provided in the ES. It is considered that the reasons for selection of the proposed access in favour of alternative routes are not adequately or transparently justified.

Notwithstanding the above, the design of the symmetrical splay at the A485 entrance should be questioned. Turbine component delivery is proposed from the south only, and there is no evident requirement for accommodation of a swept path for abnormal loads to the north. Reduction of the splay to the north to accommodate a swept path for normal loads and the required visibility would potentially result in less significant impacts.

Further to the above, the ES states [para. 9.48.] '*Based on the routes considered in the 2009 Access Study and subsequent information available, RWE NRL decided that the unclassified roads would not be used.*' It is not made clear in the ES as to why the decision not to use unclassified roads has been made, the subsequent information referred to do not appear to be provided in the ES.

In light of para 5.9.16 of NPS EN-1; that '*the The IPC should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation*' **It is recommended that the decision maker be requested to fully consider the acceptability of the proposed access route in the context of the alternative options to ensure that the proposed scheme has been designed carefully, and that design stage mitigation has been addressed in terms of site access to minimise harm to the landscape and visual amenity.**

### 5.1.3 Grid connection

The Council expressed concerns relating to level of assessment of potential landscape and visual impacts of the proposed grid connection route in the S42 response. The revised ES does not provide any further information in relation to the grid connection and as such the Council's concerns still stand.

### 5.1.4 Application of Assessment Methodology

Further to comments in the Section 42 response relating to the application of the assessment methodology. The Council has outstanding concerns in relation to the application of the assessment methodology particularly in terms of the application of significance criteria and recording of levels of significance.

The ES states that in para. 15.52. *that 'The predicted impacts in this LVIA are based on a multifaceted assessment using professional judgement and consideration of the sensitivity of the receptor/resource and the magnitude of change..... it should be noted that there is a **gradual transition** between categories and the two axes are not necessarily evenly weighted and therefore the final decision on significance comes down to a professional judgement.*

The 'gradual transition between categories' described in the ES reflects the continuum of levels of sensitivity and magnitude of change. The same gradual transition between the categories can be considered to transfer to assessments of significance which are based upon the relative levels of sensitivity and magnitude of change. The draft ES assessment utilised interim categories for impacts of minor/ negligible significance [e.g. Viewpoints 21, 30 and 31] which provided an indication that the impact was assessed to be between minor and negligible. The revised ES [post S42 response] has removed these interim assessments. The inclusion of the interim categories effectively addressed the nature of significance as a 'gradual transition' and acknowledged that the significance of impact was judged to be between the levels limited by the defined categories. The ES methodology states that *'the final decision on significance comes down to a professional judgement. Impact significance is recorded as one of four categories (negligible, minor, moderate or major).'* Definitions or explanation of the criteria used to distinguish between the four categories in significance assessments requiring professional judgement are not provided in the ES. As such the Council consider that the application of professional judgement is not transparently described in the ES.

Further to the above, para 15.53. of the ES states that *'Moderate levels of impact are also significant in EIA terms, but they are of progressively reducing importance.'* The application of significance criteria within the ES does not provide a clear representation of the progression between levels of impact.

This concern relates to ES assessments of impacts to landscape character, visual amenity from viewpoints and residential properties. Comparison of the following scenarios is intended to clarify the Council's concerns over the application of the ES methodology: -

- 1 The visual impact of the proposal from a viewpoint assessed to have a sensitivity of *medium*, subject to a *medium* magnitude of change is recorded as an impact assessment of *moderate* significance.

- 2 The visual impact of the proposal from a viewpoint assessed to have a sensitivity of *medium*, subject to a *high* magnitude of change would represent an impact of *moderate or major* significance [as ES Diagram 15.2]. When the impact assessment is recorded as *moderate* as a result of the application of 'professional judgement', the transparency of the nature of the assessment as being higher than scenario 1 above is lost and the progressive transition of importance is not clearly reported.

It is considered that a more transparent representation of the gradual transition of significance assessments would be provided through utilising interim levels of significance.

**It is recommended that the decision maker be requested to fully consider the assessments of magnitude of change and sensitivity and the nature of transition as part of assessment of impacts, to establish the nature of the progressive importance of impacts. The Councils review and summary of significant impacts set out in Section 5.2 of this report identifies interim assessments.**

#### 5.1.5 Assessment of Landscape Impacts

The Council considers that the ES has understated the magnitude of change to one of the LANDMAP Visual and Sensory Aspect Areas. LANDMAP Visual and Sensory Aspect area CRMRTVS870 Mynydd Trebeddau appears to have only been assessed in terms of the direct impacts of the access track, the indirect impacts of the proposed turbines do not appear to have been assessed. The Council considers that when viewed in relation to the ES assessment of LANDMAP Visual and Sensory Aspect area CRMRTVS441 - Mynyddstyfflau Carn the magnitude of change, including indirect effects of the proposed turbines would be more fully assessed as medium. The ES assessment of sensitivity is considered to be appropriate, resulting in an impact of a **moderate** level of significance

In addition to the above, LANDMAP Visual and Sensory Aspect area CRMRTVS734 Mynydd Llanllwni is assessed in the ES as of high sensitivity and as subject to a medium magnitude of change, correlating to a *moderate or major* impact. As stated above [5.1.3], the Council consider that this should be more transparently reported as a **major/moderate** level of significance.

#### 5.1.6 Assessment of Visual Impacts from Viewpoints

The Council considers that the ES has understated either the sensitivity or magnitude of change from some viewpoints. A review of the Visual Impact Assessment has been undertaken by the Council, using the methodology and descriptions of sensitivity and magnitude of change identified in the ES. The review is presented in Appendix 5.3. The assessments are based upon the information presented in the ES and site observation. The review includes interim assessment criteria to reflect the nature of transition between levels of impact significance [as described above in section 5.1.4].

The ES provides assessment of the visual impacts from settlements based upon representative viewpoints, the Council review in Appendix 5.3 presents revised assessments. The Council assessments of viewpoint impacts result in the following adjustments to impacts from settlements: -

### **Alltwalis**

It is considered that the ES has **understated** the visual impacts from representative viewpoint 2 and those properties and areas of Alltwalis with views to the proposed development will be subject to **major/moderate adverse, long term** impacts. [**Significant**]

### **Gwyddgrug**

It is considered that the ES has **understated** the visual impacts from representative viewpoint 4 and that areas and properties within Gwyddgrug will be subject to **major/moderate adverse, long term** impacts. [**Significant**]

### **Llanllwni**

It is considered that the ES has **understated** the visual impacts from representative viewpoint 9 and that that properties and areas of Llanllwni with views to the proposed development will be subject to **major/moderate adverse, long term** impacts. [**Significant**]. However, it is acknowledged that the nature of topography and the form of the settlement will result in this impact being experienced from limited areas.

### **Llanpumsaint**

It is considered that the ES has **understated** the visual impacts from representative viewpoint 12 and that that properties and areas of Llanpumsaint with views to the proposed development will be subject to **major/moderate adverse, long term** impacts. [**Significant**]. However, it is acknowledged that the viewpoint is not representative of the settlement and as such this impact will be experienced from limited areas.

### **Llanfihangel-ar-arth**

It is considered that the ES has **understated** the visual impacts from representative viewpoint 14 and that that properties and areas of Llanfihangel-ar-arth with views to the proposed development will be subject to **major/moderate adverse, long term** impacts. [**Significant**]. However, it is acknowledged that the viewpoint is not representative of the settlement as a whole and as such this impact will only be experienced from areas with views of the proposal, and that the main body of the settlement would not be subject to significant impacts.

#### **5.1.7 Assessment of Visual Impacts to Residential Amenity**

The Council considers that the ES assessments of sensitivity and magnitude of change are appropriate. In all residential viewpoint assessments in which a 'medium' magnitude of change has been identified, experienced by a residential receptor [high sensitivity], the impact has been assessed as of 'moderate' significance. As discussed in section 5.1.4 above it is considered that the significance assessments would be more usefully identified with the interim category of '**major/moderate**' to clarify the level of significance to the decision maker as within the transition between moderate and major.

#### **5.1.8 Assessment of Visual Impacts to Residential Amenity - Access Track**

The visual impacts to three of the four properties are assessed in the ES as being of medium magnitude of change; this assessment is considered to be appropriate, however, as stated in section 5.1.4 above, the application of

significance criteria to these residential properties, of high sensitivity, is more transparently recorded as **major/moderate adverse**.

## 5.2 Summary of Significant Impacts

As described above in sections 5.1.4 to 5.1.8, the Council is not in agreement with some of the assessments of landscape and visual impacts recorded in the ES. The significant impacts of the proposed development, as assessed by the Council are provided in Tables 5.3 to 5.6 below.

**Table 5.3: Significant Landscape Impacts**

<b>Major adverse, long term</b>
LCA 21 Cambrian mountains up to 2-3 km from the proposed development
LANDMAP Visual and Sensory Aspect area CRMRTVS330 - Brechfa Forest
<b>Major/moderate adverse, long term</b>
LANDMAP Visual and Sensory Aspect area CRMRTVS734 - Mynydd Llanllwni
<b>Moderate adverse, long term</b>
LCA 21 Cambrian mountains up to 5 km from the proposed development
LANDMAP Visual and Sensory Aspect area CRMRTVS441 - Mynyddstyfflau Carn
LANDMAP Visual and Sensory Aspect area CRMRTVS870 - Mynydd Trebeddau

**Table 5.4 Significant Visual Impacts [as Appendix 5.3]**

<b>Major adverse, long term</b>
Viewpoint 1 - Mynydd Llanfihangel-rhos-y-corn Cairn Summit
<b>Major/Moderate adverse, long term</b>
Viewpoint 2 - Alltwalis
Viewpoint 3 - Minor road, close to Gwar-allt
Viewpoint 4 - Gwyddgrug
Viewpoint 5 - Plasmawr/ Danybanc
Viewpoint 7 - Horeb Road Crossroads B4310
Viewpoint 8 - East of Gilfach-y-rhiw
Viewpoint 9 - Llanllwni
Viewpoint 10 - West of Pencader
Viewpoint 11 - Crug-y-biswal, Pen Llwyn-uchel
Viewpoint 12 - Llanpumsaint
Viewpoint 13 - Llidiad Nenog
Viewpoint 14 - Llanfihangel -ar-Arth
Viewpoint 15 - Blaenuad Forest
Views from Alltwallis
Views from Gwyddgrug
Views from Llanllwni [south edge only]
Views from edge of Llanpumsaint
<b>Moderate adverse, long term</b>
Viewpoint 16 - Llandysul
Viewpoint 17 - A475, lay-by west of Cwm-sychbant
Viewpoint 18 - Mynydd Cynros
Viewpoint 19 - Paxton's Tower
Views from northern edge of Pontarsais
Views from edge of Rhydargaeau
Views from elevated western edge of Llandysul

**Table 5.5 Significant Impacts to Residential Visual Amenity**

<b>Major adverse, long term</b>	
Property ID	Property name
W001	Bryngolau
W002	Cwmyronnen Uchaf
<b>Major/Moderate adverse, long term</b>	
Property ID	Property name
W003	Blaengwyddgrug
W004	Lanclynadda
W005	Gellifelen
W006	Salach
W011	Clynmawr Farm
W012	Ffynnon Las and Blue Well
W013	Landdu
W014	Foel y Ddafad Ddu
W016	Coedlannau Fawr
W034	Waldron
W036	Llaingam

**Table 5.6 Significant Impacts to Residential Visual Amenity - Access Track**

<b>Major/Moderate adverse, long term</b>	
Property ID	Property name
AT001	Veindre Park
AT002	Llwynwallter
AT003	White Hart

## LOCAL IMPACTS

The following local impacts are identified: -

### 5.3 Impacts to Landscape Character

The Brechfa West development is assessed as resulting in significant adverse impacts to landscape character; representing negative local impact. An interpretation of impacts is presented in the ES; however as stated elsewhere in this report the Council is in disagreement with some of the assessments, a summary of the Councils assessments are presented in Table 5.2 above **it is requested that the decision maker consider these assessments in addition to, and in relation to those presented in the ES.**

**Local Impact: NEGATIVE**

### 5.4 Impacts to Visual Amenity

All viewpoints within 12.95km of the nearest turbine; with the exception of viewpoint 6 -Brechfa, are identified as being subject to significant adverse visual impacts; representing negative local impact. An interpretation of impacts is presented in the ES; however as stated elsewhere in this report the Council is in disagreement with some of the assessments, a summary of the Councils assessments are presented in Table 5.3. **It is requested that the decision maker consider these assessments in addition to, and in relation to those presented in the ES.**

**Local Impact: NEGATIVE**

### 5.5 Impacts to Visual Amenity of Local Residents

The Brechfa West development is assessed as resulting in significant adverse impacts to the visual amenity of local residents; representing negative local impact. An interpretation of impacts is presented in the ES, however as stated elsewhere in this report the Council is in disagreement with some of the assessments, a summary of the Councils assessments are presented in Table 5.4. **It is requested that the decision maker consider these assessments in addition to, and in relation to those presented in the ES.**

**Local Impact: NEGATIVE**

### 5.6 Impacts to Visual Amenity of Specific Local Residents

The existing Alltwalis turbines form a prominent part of the existing views from several properties within 2km of the proposed Brechfa Forest West development. The ES visual impact assessments are based upon changes to the visual baseline, which from these properties, includes the existing Alltwalis turbines.

The Council consider that the 'magnitude of change' assessments in the ES, relative to the baseline are acceptable. The Brechfa West ES sets out an assessment of the impacts of the proposed development and is not required to consider the overall effect of wind turbine development [Brechfa West and Alltwalis] on these properties. The following properties are identified in the ES as being subject to significant impacts above the baseline. The Council consider that the following properties may be subject to significant in combination effects with existing wind turbine development which may result in unacceptable overall impacts: -

- W001 Bryngolau
- W003 Blaengwyddgrug
- W004 Lanclynadda
- W005 Gellifelen

W016 Coedlannau Fawr

W036 Llaingam

**It is requested that the decision maker consider the acceptability of the overall impacts of wind turbine development to these residential properties.**

**Local Impact: NEGATIVE**

## 5.7 Impacts to Recreation and Tourism Resource

It is noted that question 8 of the Examining Authority's Written Questions [Annex C, Rule 8 letter] requests information to evidence the importance of tourism to the local economy in the Brechfa Forest area. Information provided should be considered in relation to the following local impacts

### 5.7.1 Recreational users of Brechfa Forest.

Brechfa Forest is well used for informal outdoor recreation, in particular walking, horse riding, and cycling. Brechfa Forest is classed as dedicated open access land, and permissive rights exist for recreational access for users on horseback or cycles. The forest area contains the dedicated mountain bike trails at Abergorlech and a leaflet promoting 'Walks in Brechfa Forest' has been published.

The Brechfa Forest is a diverse landscape of plateau, plateau slopes and steep river valleys dominated by coniferous and mixed forests. The area is identified as being of high value for Scenic Quality, Integrity, Character and Rarity in LANDMAP.

The proposed development will result in major long term adverse impacts to the landscape character of the forest, and to the visual amenity of users of the recreational resources in areas of the forest with views of the turbines and infrastructure.

It is considered that the landscape and visual impacts of the proposed development will result in major adverse impacts to the recreational and tourism resource of the Brechfa Forest area.

**Local Impact: NEGATIVE**

### 5.7.2 Recreational users of open access land on Mynydd Llanllwni.

Mynydd Llanllwni is an unenclosed area of heather moorland, on a rolling plateau with extensive panoramic views in all directions. The area is identified as a Special Landscape Area. There are other areas of moorland in the county; however Mynydd Llanllwni is distinct in its visual character, sense of exposure, and panoramic open views. LANDMAP evaluates the area as outstanding for Rarity

The area is open access land which is easily accessible from the public highway. The Council considers that Mynydd Llanllwni would form an attractive destination for recreational users on a county scale. Whilst there are no major settlements immediately served by the site it is considered that the accessibility, landscape resource and character would attract recreational users to the area.

The Council considers that the significant adverse impacts to landscape character and visual amenity of the Brechfa West proposal, particularly cumulatively with other proposed wind farm developments would result in significant negative impacts to the recreational and tourism resource of Mynydd Llanllwni.

**Local Impact: NEGATIVE**

**5.7.3 Recreational users of the wider public footpath network**

The proposed development has been assessed as resulting in significant impacts to landscape character of a major adverse long term nature within 2-3km of the site. The Council considers that the Brechfa West proposal would result in significant negative impacts to the recreational and tourism resource of the wider public footpath network within this range.

**Local Impact: NEGATIVE**

**5.7.4 Tourism**

There is an existing local tourism economy within the area, with local business providing services including accommodation and cycle hire.

The proposed development has been assessed as resulting in significant adverse impacts; representing negative local impacts to tourism in the local area.

**Local Impact: NEGATIVE**

**5.7.5 Future potential for Tourism**

The recreational potential of the local area in terms of its landscape and visual resources has not been extensively promoted. The Council considers that the landscape and visual impacts of the proposed development will challenge the future potential to effectively promote the benefits of the landscape, heritage and outdoor recreational resources of the area for tourism purposes.

**Local Impact: NEGATIVE**

**5.8 Impacts of the Grid Connection**

The Grid Connection assessment contained within the ES does not fully address the landscape and visual impacts of the proposed route. Based upon information presented in ES Appendix 3.2, the route appears to be located along a sensitive corridor. Initial broad scale review of the route reveals that approximately 70% of the combined Brechfa East and West grid connection route passes through LANDMAP Visual and Sensory Aspect Areas of either High or Outstanding value. The ES identifies important historic landscape features and visitor attractions within the route corridor or within the study area. Whilst the connection will be dealt with via a separate planning application, and there is potential to mitigate for impacts by underground connection in sensitive locations, the Council considers that the potential local impacts to landscape character and visual amenity to residents, settlements, landscapes, historic landscape features and tourist attractions would result in adverse impacts.

**Local Impact: NEGATIVE [Predicted]**

## 6.0 NOISE

- 6.1 The applicant has provided a noise assessment for which the Council has obtained an independent peer review from Parsons Brinckerhoff Ltd. The review found that the data collection and analysis process undertaken by the applicant is generally in accordance with the ETSU-R-97 and IOA Bulletin Article methodology employed, as is the calculation of turbine noise immission levels from the applicant's site. When assessed on its own merit, the site would appear to meet the ETSU-R-97 derived noise limits.
- 6.2 The Council notes that overall the noise impact of the scheme is **NEGATIVE**. ETSU-R-97 acknowledges that some loss of amenity for local residences is acceptable in the "greater good". If planning were to be granted, this would fundamentally change the nature and character of the area, and therefore it is essential that an appropriate balance is struck between the noise impacts of the scheme and the environmental benefits.
- 6.3 Following the initial review, the consultant raised some concerns for which further clarification was sought from the applicant. These were:
- Uncertainty in the appropriateness of the noise limits set for the previous consented Alltwalis wind farm and its applicability to the Brechfa Forest West application, both in terms of the data presented, and the applicability of noise limits for a financially involved property to increased wind farm noise from another wind farm without financial involvement;
  - The potential for the increased risk of "other AM";
  - Uncertainty in the method of cumulative impact assessment in light of the Appeal decision at Gorsedd Bran, Nantglyn (**APPENDIX 6.1 refers**); this is particularly relevant for those properties affected by wind farm noise from the existing Alltwalis site, and the proposed sites at Brechfa Forest West, and Bryn Llywelyn.
- 6.4 The applicant's responses to the first and last points above have been received, but must be subject to further discussion and deliberation between the IPC Commission and Carmarthenshire County Council. The Council accepts that it cannot deal with 'other AM' under the planning process with current knowledge.

### Cumulative Noise Impact

- 6.5 When setting suitable noise limits for the wind farm, the ETSU-R-97 guidance is not clear on what would constitute an acceptable cumulative impact, and the Council believes that further consideration is necessary on the impacts of the Brechfa West proposal in relation to the existing wind farm at Alltwalis, and the proposed wind farm at Bryn Llewellyn. In particular the Council feels that weight should be given to Carmarthenshire Unitary Development Plan policies UT5, UT6 & UT12. Significant weight should also be given to the Gorsedd Bran Inquiry ruling in respect of what is an acceptable level of cumulative impact.

- 6.6 Properties that would be worst affected by cumulative impact from the proposed Brechfa West and Bryn Llewelyn wind farms are Bryngolau (No 27), Blaen nant-Gwyn (No 11), Ffynnon-Las(No 10) and Salach (No 15). These properties are situated with Brechfa West generally to the South of them, and Bryn Llewelyn generally to the North of them. Potentially, these properties could be exposed to wind farm noise whenever the wind is blowing, giving them no respite from wind turbine noise, which was considered an unacceptable impact by the Planning Inspector at the Gorsedd Bran Inquiry. Carmarthenshire County Council believes that some of the aforementioned properties would be similarly unacceptably impacted if the two wind farms were consented as currently proposed, and would like to engage with the Commission during the determination process to reach an agreeable solution to all parties. This might be through reductions or amendments to turbines closest to these properties.
- 6.7 Properties that would be worst affected by cumulative impacts from the proposed Brechfa West and existing Alltwalis wind farms are Gellifelen (No 13), Lan Farm (No 20) and Coedlannau Fawr (No 23). Notwithstanding the long complaint history in recent years from the Alltwalis wind farm, there is a technical issue of incompatible noise limits to be resolved, and a cumulative noise impact to consider. The technical issue relates to the Alltwalis noise limits being set relative to a 10m measured wind speed, whereas Brechfa West is relative to hub height wind speed (or “standardised” 10m height). This presents difficulties in setting an appropriate noise limit, as well as practical difficulties for future enforcement. The applicant has offered a potential solution to this technical problem, and the Council would welcome the opportunity to agree this with the IPC at the appropriate time. In relation to the cumulative impact, any additional turbines in close proximity to the existing Alltwalis wind farm will increase the levels of wind farm noise exposure to the aforementioned properties, and CCC would welcome the opportunity to agree this with the Commission at the appropriate time. Unless an acceptable resolution can be found, the Council considers that the cumulative noise impact upon the amenity of neighbouring occupiers to be a **NEGATIVE** impact of the scheme.

## 7.0 ECOLOGY AND ORNITHOLOGY

### Habitat loss in Brechfa West - Negative Impact

- 7.1 The ES (para 13.26 refers) does not fully recognise the opportunity that this proposal creates for enhancing, extending and re-creating habitats of significant wildlife and landscape value. This application should be a demonstrating a net gain for biodiversity, consistent with the Welsh Government's TAN 5 para. 1.4.3, which states:

*“The Assembly Government looks to the planning system to improve as well as protect the environment and to enhance as well as conserve the countryside and undeveloped coast, including statutorily designated areas (PPW paragraph 2.3.2). Consequently, this TAN also addresses ways in which the planning system can help to enhance as well as conserve natural features, natural processes, wildlife and the habitats on which it depends.”*

- 7.2 The ES identifies several BAP habitats types that will be lost as a result of the scheme - table 13.32 of the ES refers and is summarised below:

marshy grassland	0.22ha
marshy grassland and scrub	0.85ha
semi-natural broadleaved woodland	0.17 ha
wet dwarf heath	0.61ha
wet heath and acid grassland mosaic	1.92ha
<b>TOTAL</b>	<b>3.77ha</b>

- 7.3 TAN 5 also states that where development proposals may affect national or local BAP habitats or species, the same principles as to locally designated sites apply. It is therefore considered that the developer should avoid harm to BAP habitats or species where possible and where harm is unavoidable it should be minimised by mitigation measures and offset as far as possible by compensation measures designed to ensure there is no reduction in the overall nature conservation value of the area or feature.
- 7.4 While the area of each habitat lost is small, collectively they amount to larger area of semi-natural habitat that will be lost, a total of 3.77ha of semi-natural habitat.
- 7.5 The Habitat Management Plan (HMP) addresses the need to re-create non-coniferous habitats under the turbines and alongside new and existing tracks - See Appendix 13.10 and HMP objectives 1.1 and 1.2. However there is no particular or detailed reference to ensuring that areas (ha) of these distinctively different habitats are successfully re-created, thus demonstrating no net loss of biodiversity. Undoubtedly several of the habitat types will regenerate, but there needs to be some certainty that habitat management will ensure that the entire range of the different habitats that are lost are re-created. It may for example be harder to re-create the wet dwarf heath, and certain practical measures may have to be taken to ensure this happens, rather just leaving it and seeing what regenerates in the allocated areas.
- 7.6 Generally where planning is granted, and where semi-natural habitats are lost, it is requested that double the area lost be re-created. It is requested that the HMP

should be developed further to ensure that the full range of affected habitats are re-created in the areas available. It could include targets for the re-creation of certain habitats and criteria for establishing when these habitats might be considered to have been successfully established, as has been achieved for habitats affected by the National Grid pipe line that crosses Carmarthenshire.

- 7.7 It is concluded that the possible loss of a variety of semi-natural Biodiversity Action Plan (BAP) habitat is a negative impact of the scheme. It can be overcome by further development of the HMP through adequate mitigation.

### **Mitigation for Bats and Birds**

- 7.8 Surveys detailed in the ES state that nine species of bats were recorded as using the forest. Activity was concentrated around the mature beech trees at the top of the Pib Valley. These trees will not last forever so mitigation should include the planting and growing on, in suitable locations within the forest, to their biological maturity, areas of beech, oak and ash trees, that will be managed in a way that will ensure that in the future there will be a number of large veteran broadleaved trees in the forest, away from the turbine locations.
- 7.9 Bat and bird monitoring should also be undertaken in the areas beneath the turbines, and a methodology detailed in the HMP. This should ideally be undertaken for the lifetime of the development. If any correlation is identified between bat and bird mortality and the vegetation and invertebrate data in the 47 metre radius areas, then measures should be put in place to reduce mortalities, this may include removing vegetation from beneath the turbines.
- 7.10 It is concluded that insufficient monitoring for bat and bird activity during operation of the wind farm has been provided. This impact can be overcome by further development of the HMP as suggested at para 7.9

### **Mitigation for Nightjar**

- 7.11 Nightjar are an Annex 1 Species under the European Bird Directive and a BAP species. The ES recognises Nightjar as being of high conservation importance. The likely impact of the scheme on nightjar should be fully addressed, see HMP Section 7 in Appendix 13.10. The HMP highlights that:
- the availability of suitable breeding habitat within the forest is likely to diminish (Appendix 13.10 para 7.3)
  - the construction of the wind farm in Brechfa West, without appropriate mitigation in place, could result in a disturbance or displacement of nightjar (Appendix 13.10 para 7.4)
  - it is imperative that reasonable and precautionary mitigation, based on extant data, is provided during construction and operation (Appendix 13.10 para.7.5)
- 7.11 The ES suggests that nightjar may be displaced as a result of the project because of human activity, alteration of nesting habitat and turbine noise.
- 7.12 Mitigation proposed looks at the provision of habitat alongside new and existing tracks. Para 7.20 of the HMP highlights that these habitat patches are small relative to the size preferred by nightjar for nesting, but that they may become attractive to nesting and foraging nightjar adjacent to larger forestry clear fells. Given that the

noise of turbines may be a factor affecting nightjar breeding, it would seem that the track edges in and around the turbines may not be ideal nesting areas.

- 7.13 Suitable nesting habitat should therefore be provided away from the turbines and this should form a part of the HMP, even if this is something that FCW have to deliver outside of the application area - which seems the most logical option. While monitoring of the nightjar in the affected area will yield useful information, the Council should not be waiting for the results of a few years of monitoring to inform the HMP as to whether alternative nesting areas are going to be required – such areas need to be provided at the commencement of any development. Nightjar are recognised as being of high conservation importance, and consistent with a precautionary approach, the developer and the land manager should be proactive in ensuring continuity of nesting habitat for this species in the wider Brechfa forest.
- 7.14 Suitable areas for nesting nightjar should be provided elsewhere in the forest, away from turbines that may, due to the noise they produce, adversely affect the churring males. Para 7.23 of the HMP explains that WWS and FCW policies are expected to provide a fairly stable amount of nesting habitat consistently over the life of the wind farm. Para 7.30 even mentions increasing, where possible, the area of suitable habitat for nightjar, but referring back to Objective 5.3 and paras 7.17 -7.19 this seems to refer again to the track edges, which may not be suitable habitat. It must be stressed that any habitat created for the purposes of supporting nesting nightjar has to be of the right vegetation structure and in the right place, and of the required extent, so as to be attractive to the bird, and this may not include track edges near a number of turbines.
- 7.15 The aspiration to increase the area of suitable habitat for nightjar is welcomed but this has to take on board that the proposed habitat has to be in the right place. As a principle this should be set out clearly as a target of the HMP and FCW's the Forest Design Plans at this stage. A sequence of planned clear fells carried out over the life-time of the development, away from the noise of the turbines, that will open up sufficiently large flattish areas, and will be attractive to nightjars are required. This would demonstrate the adoption of the precautionary principle. Monitoring a possible decline and then taking action as proposed in the ES is not consistent with the adoption of the precautionary principle.
- 7.16 Nightjars are capable of locating areas of suitable habitat and they have done in the past - there is a history of them moving around the forest, following the clear fells. (See Cross, T. et al 2004 Science for the Conservation Management: European nightjar *Caprimulgus europaeus* Breeding Success and Foraging Behaviour in Upland Coniferous Forests in Mid Wales joint research by the Brecknock Wildlife Trust, Countryside Council for Wales and Forestry Commission). This study suggests that the minimum clearing size where nightjar were found to nest was 5ha, and the mean size was 23ha, suggesting that small areas of habitat may not be used for nesting. (Some of the research for this paper was carried out in Brechfa Forest, by FCW staff, but it is not referred to in Appendix 13.10 Draft HMP section 10 references.)
- 7.17 The HMP does not appear to take on board the noise of the turbines as a factor that may displace breeding nightjar. The noise from the turbines will be heard at times over much of the development and this in itself may mean that nightjar is displaced from this part of the forest during the operation phase. The monitoring of breeding success will provide information on this aspect, but it does highlight the need for

alternative nesting habitat to be provided away from the turbines in other parts of the forest at the commencement of construction, not when a decline in numbers has been observed through monitoring. Again this is considered to be achievable, but it needs to form a part of the HMP at this stage. Details of this provision must be included within the HMP and not left until the next revision of the Forest design plan for other areas of the Brechfa Forest, it must be integral to the proposed wind farm development in Brechfa West. Unless effective mitigation is introduced, the impact the proposal would have upon nightjar is deemed **Negative**.

### **Monitoring of Nightjar Population**

- 7.18 It is recommended that prior to any development commencing, the nightjar population in the forest as a whole continues to be monitored, so as to ensure that up to date data on their distribution and breeding success is available should development commence.
- 7.19 Should the development proceed, it is requested that nightjar populations in the wider Brechfa forest are monitored as per the Scottish Natural Heritage guidelines ( 2005) until at least year 15 post commissioning of the wind farm, so as to gauge the effect , if any, of this development on the nightjar population occurring in this larger area. Without effective monitoring of Nightjar the proposal could have a **Negative** impact.

### **Local Access from the A485 – Negative Impact**

- 7.20 There is need for the proposed access track off the A485 to be evidenced. Of the three routes considered in the ES the proposed route is possibly the most ecologically damaging.
- 7.21 The Bryn Llewellyn scheme (LPA Application No. E/23947) has identified that it is possible to gain access to Mynydd Llanllwni via the county road from New Inn onto the mountain. If adequately improved this road could equally well serve the proposal at Brechfa Forest West. Using the existing highway network would be preferable to making a new track. The use of this road is likely to involve a junction re-alignment – that The Council Highways Department are satisfied with, and a minor amount of road widening which can be achieved by translocation the hedgerows back from the pinch points. Passing places could be created in the same way. This route has been assessed by RES for the Bryn Llewellyn Wind Farm proposal on Mynydd Llanllwni. Unlike the making of a new track across farmland, there is no need for there to be any permanent loss of hedgerows or earth banks if this approach is followed.
- 7.22 Alternatively the access track to the Alltwalis wind farm at Bedwhirion could be used. This is in place and would require few, if any improvements. The existing track to the Alltwalis wind farm has made a considerable impact in the landscape – it is seen from several miles away in Ceredigion, and to construct another track just one field away would contribute further to the degradation of this landscape. One overall aim here should be to enhance the landscape around the proposed wind farm sites, so as to off-set the impact of the turbines, and not to proceed with unnecessary infrastructure that will further degrade the landscape of the affected areas.
- 7.23 From a landscape and biodiversity perspective, and from the perspective of sustainable development it is far more appropriate, and probably cheaper, to use either the existing highway network with minor re-alignment beyond New inn, or to

use the existing track to the Alltwalis Wind Farm, than to create a new track across and agricultural landscape.

- 7.24 In addition, the proposed new track (see fig 13.18b of the ES) will pass over land that is already being managed to enhance its value for biodiversity under the Alltwalis Wind Farm S106 agreement. Loss of this habitat, together with that which would be lost elsewhere along the route of the proposed track, is unacceptable in the Council's view. Landscaping of the track that is proposed is included in the ES however what is needed here is enhancement of the hedge lines that run at 90 degrees to this track rather than its landscaping being solely focused on the line of the track itself. Wild flower seeding is questioned as an appropriate technique here, where semi-natural vegetation is involved the Council would request the removal of turves, appropriate storage and re-use. Wild flower seeding may be appropriate on improved agricultural land, alternatively green hay from local donor sites can be used as a means of using locally collected seed.

### **Invasive Non-native Species**

- 7.25 ES para 13.53 references Japanese Knotweed as a controlled non native invasive species under the Wildlife and Countryside act 1981. The document also considers its presence and necessary management during the development, however there is no mention of Himalayan Balsam. The presence of Himalayan Balsam should be considered and reported in the ES and where necessary measures should be put in place to control or eradicate the species as appropriate (see para 13.283 of ES). If Himalayan Balsam is not currently evident on the site, the site should be monitored in case it appears during the construction period. If this was the case the necessary action to control it must be taken.
- 7.26 It is considered that the eradication of Japanese Knotweed should be undertaken as a general site/habitat enhancement and details of the Japanese Knotweed control/eradication strategy should be included within the HMP/CMS. The presence of Himalayan Balsam should also be considered as detailed in para 13.53.
- 7.27 The details at paras 7.25 and 7.26 of the LIR should be carried out in order to form a comprehensive assessment of scheme impact. Failure to do so could result in Negative impacts.

### **Aquatic habitats**

- 7.28 With reference to ES para 13.68 fifth bullet point and para 13.258, the field pond referred to in this section as a pond at Viendre Parc with good water clarity, aquatic vegetation and adjacent scrub habitats may be lost to the proposal. The likely impact of the construction of the track on this pond should be clarified and any loss fully mitigated. A check for amphibians using the pond should be made prior to works and any amphibians found should be translocated elsewhere if possible to avoid harm. There could be **Negative** impacts if these procedures are not carried out.

## 8.0 ACCESS, TRAFFIC, TRANSPORTATION AND ASSOCIATED ENGINEERING IMPACTS

- 8.1 The effect of the proposed development is largely dependent on the type and volume of the traffic generated and the capacity of the existing highway network to accept the anticipated increase over the duration of the whole life of the proposed development, but ultimately during the intensive construction period.
- 8.2 Figure 9.1 of the Environmental Statement records the proposed access route to the wind farm. This involves vehicle movements along the A485.
- 8.3 Whilst it is acknowledged that the levels of HGV and other traffic created by the construction, operation and maintenance of the Brechfa Forest West wind farm proposals will not have a significant effect on the ability and capacity of the A485 there are concerns about the effect of type and volume of traffic on the local area.
- 8.4 During the construction phase of the proposals there will be an increase in traffic levels that will ultimately have a local impact. In particular it will attract a considerable increase in HGVs to the area each day and this has the potential to cause delays to local residents at a number of points along the main A485 and on the local highway network. Whilst these delays may only occur in short duration, they have the potential to cause irritation, frustration and inconvenience to local residents regularly using the main A485 and local distributor roads.
- 8.5 The inference is that the preferred route as described in the ES is the only viable route as the potential alternatives described state that either negotiations with landowners were not possible or the engineering works to the approaching highway and in the vicinity of New Inn would potentially have a detrimental impact on the residents within the village and pedestrians walking through the village.
- 8.6 Reference has been made to three alternative construction routes, yet there is little in the way of assessment of the merits or problems associated with these routes from a highway safety / transportation perspective. One of the principles of EIA development is to assess alternatives.
- 8.7 The applicant proposes that a new junction arrangement is to be created between the proposed access track on private land and the existing A485. The LPA is concerned that such a direct access from the trunk road may be detrimental to the operational safety of the highway and the acceptability of the visual, ecological and environmental impacts, which is considered could contravene LPA policy. It is also concerned that these proposals have not been fully disclosed and discussed with the overseeing authorities namely the Local Highway Authority. Any such new access would require their agreement and would require a Road Safety Audit to be carried out in accordance with the relevant Departmental Standards.
- 8.8 The impact and implication of this new junction is totally dependent upon the type of junction arrangement provision from the existing A485 onto the site (i.e. ghost island, merge / diverge tapers within bell mouth etc) – the junction needs to be significant to accommodate the abnormal loads. Traffic lights should be avoided if possible due to delays to through traffic, however, if safety is an issue then traffic lights may be an appropriate means of mitigation.

- 8.9 Several minor roads surrounding the site provide links to the wider road network. In light of the partial collapse of a bridge on the B4310 near Brechfa school (08/02/11) causing detours of up to seven miles and lengthy traffic delays, the Council would like assurances from the applicant that the necessary assessments have been carried out on local access routes in particular with regard to existing structures in respect of diversionary works during the construction period. Whilst it is understood that the local highway authority have confirmed that the identified route does not require any strengthening works to accommodate the abnormal loads or additional increase in use by HGVs, it is considered that this should be incorporated as part of the Design and Access Statement strategy.
- 8.10 There is an expectation that there will be sufficient capacity available from the identified borrow pit on site to minimise import of material for the onsite access roads. If this potential expectation is not realised there will be reliance upon import from Dinas Quarry as stated in the ES. It is unclear if the route identified for delivery of stone from Dinas Quarry has been included as part of the permitted access routes and or whether the suitability of the route been assessed. Any unrealised need to import from the quarry will necessitate an increase in the HGV movements for the additional deliveries from Dinas Quarry for stone that cannot be sourced from the borrow pit, which will impact directly upon the local highway network.
- 8.11 The applicant refers to a route from the preferred quarry; this route has not been identified. Details of the proposed access route from Dinas Quarry have not been provided and the LPA is disappointed that it has not been given the opportunity to comment given the potential impact that may occur.
- 8.12 With regard to Personal Injury Accidents (PIA), the information provided is very broad with no details provided for any particular junctions along the A485 route. Therefore it cannot be established if there are any accident patterns. Whilst it is noted that the total PIA over 4 years appears to be quite high, no context is given regarding average or expected accident rates along this length of route. As a result, further consideration of PIAs may be needed in order to fully identify the existing conditions and likely impacts.
- 8.13 As referred to in the ES the pedestrian levels may be minimal on the A485, however, it would be helpful to have a better understanding of any affected communities along the route including widths of footways, pedestrian crossing locations and the number of properties within close proximity to the route(s) that are likely to experience the increased traffic levels. This should include any schools or other sensitive receptors in the area that are directly affected along the access route(s).
- 8.14 The ES states that the development will have no significant effect on pedestrians – this is a considered opinion, which is not clearly evidenced or substantiated. The TMP will clearly be a controlling mechanism in mitigating the effect of the predicted and cumulative impacts.

- 8.15 Whilst options were discussed between the Applicant and the LPA in respect of accessing the site further details of these would help to inform the IPC in support of the preferred option presented. Concerns have been raised in respect of a lack of engineered details in the form of drawings for potential highway improvement solutions.

### **Assessment of Impacts of Highways Works**

#### **The Access Study for Abnormal Loads**

- 8.16 A test run was instigated on 4<sup>th</sup> July 2011 by Wide Load Escorts (Wales) Ltd, the details and results of which are presented in Chapter 9, Appendices of the ES. Potential mitigation works are identified, but the details and extent are yet to be determined. The details provided do not enable the Council to fully assess the impact on local roads.

#### **Design and Access Statement**

- 8.17 The applicant has submitted a Design and Access statement with the Development Consent application. However, the Council does not consider that it provides sufficient detail to enable a full assessment of the potential impacts on the local highways network.
- 8.18 The Council is concerned that there is not sufficient detail provided with the applicants proposals to determine the requirements of the offsite access works, as a result requirements for sufficient land outside existing highway boundary are not clear.
- 8.19 The requirement set out in National Policy Statement EN-3 that a wider access strategy should be considered, which it is suggested would look at access points, the movement to, from and within the development, community safety, environmental sustainability etc for not only abnormal loads, but construction traffic in general, as well as inclusive access for operational and maintenance activities. The LPA is concerned that the wider access strategy has not been considered in sufficient detail.
- 8.20 The Council also has concerns as there appears to be no assessment of impact or traffic flow increases along the A48 and A40, particularly at roundabouts (e.g. Cross Hands, Pensarn).

### **Assessment of Cumulative Impact**

#### **Cumulative Impact of Construction Activities**

- 8.21 The cumulative impact covers a wide range of influences that may directly or indirectly have a local impact. The following information attempts to identify some of the anticipated issues that are likely to have potential to cause or affect cumulative impact, but is not intended to represent an exhaustive listing.

### **Increase in Traffic Levels**

- 8.22 This ES states there will be a 19% increase in HGV movements (weekdays) along the A485 during the construction period. Concern that the cumulative impact of construction traffic relating to the proposed wind farms at Brechfa East and Bryn Llywelyn could result in a significant increase in overall HGV movements resulting in a much higher %.
- 8.23 Cumulative impact could potentially exceed the 30% figure quoted in the ES. Notwithstanding this the movements may be intensive at certain times of the day especially if they take place primarily in the morning to coincide with the daily commute.

### **Severance**

- 8.24 The outcome of the 'Severance' impact is defined in the ES as 'not significant', however, the perceived division within a community separated by a major traffic artery needs to reflect the severity of change. Whilst it is appreciated that there is no predictive formulae, it is accepted that the percentage change in total vehicles is small, however, there is concern that the increase in HGVs is considerably large in comparison; therefore it is considered that the perception of severance should be more significant as a result.

### **Quarried Material**

- 8.25 With regard to the potential trips generated to and from the Dinas Quarry it is stated that the routes likely to be used have been agreed as part of the LPA planning permission for the quarry. What is unknown at this stage is whether the cumulative impact of extraction and transportation to accommodate the additional requirements for this development and or other concurrent developments would contravene any conditions set as part of the planning permission as specific details are not yet available.
- 8.26 Confirmation is also required that the quarry has the relevant licences in place and capacity to provide stone for the proposed development. Cumulative impact on working this quarry needs to be assessed given that other proposed wind farms may be using it.

### **Forestry Activities**

- 8.27 It is unclear if the construction programme and TMP would take account of the rotational harvesting of the forest within and outside the proposed development.

### **Other Potential Development**

- 8.28 The proposed Bryn Llywelyn development is now included as part of the cumulative impact assessment, however there are some differences in the way in which the information has been reported in the Bryn Llywelyn ES. This may need to be addressed for consistency in order to reliably inform the development of a TMP for Brechfa Forest West & East or if the need arises a combined TMP for two or three of the developments depending upon timing of construction.

- 8.29 The LPA is concerned at how it would be able to impose some form of commitment from Applicants to the phasing of construction movements of other proposed developments within its local area as set out in EN-3. In this instance given the timing of subsequent planning applications for other wind farm developments within the local area, the LPA would request that the IPC take into account whether a planning obligation is necessary to secure appropriate measures.
- 8.30 Irrespective of whether or not the quarry trips and / or forestry transportation movements are included in the cumulative assessment, the percentage change in HGV traffic flows as shown in the updated Table 9.9 of the ES taking into account the possibility of all three wind farms being constructed at the same time is way above the 10% and 30% thresholds for assessment. If the aforementioned trips are not included then the percentage increase may not be representative of the worst case scenario.

### **Grid Connection**

- 8.31 The Grid Connection Route Assessment appears to identify the inclusion of Brechfa Forest East development, but does not appear to include connection from Bryn Llywelyn in respect of assessing the cumulative effect.

### **Assessment Methodology**

- 8.32 There are concerns regarding whether the methodology used to assess the access issues fully addresses the capability of the local highway network to cope with the abnormal load movements associated with the delivery of the turbine blades.

### **Supporting Information**

- 8.33 The Council considers that it would have been appropriate for a draft Traffic Management Plan to be provided prior to the submission of the application for Development Consent.
- 8.34 The Council does not consider that the documentation supporting the Development Consent application sufficiently addresses the concerns regarding the potential impacts in relation to access, traffic and transport.

## Impact Assessment

- 8.35 The suitability of the proposed access and the potential impact upon the existing road network is of concern with the predicted increase in traffic movement, particularly HGV traffic and right turn movements to and from the direct access off the A485. Without the necessary imposition of mitigating control measures the potential impact is considered to be **Negative**. That said, having assessed all the highway and traffic information supplied in the ES and following on from consultations with the applicants it is considered that the increase in traffic capacity during construction and afterwards can be accommodated subject to strict regulation of construction traffic along with the implementation of agreed and appropriate improvements that will potentially need to be made to the highway network the residual impact is anticipated to be **Marginally Negative** during the peak construction periods.
- 8.36 The term 'Cumulative Impact' is often used to refer to landscape and visual effects, cumulative effects of wind energy and associated development proposals can relate to a wide range of social and economic as well as environmental effects and may be Positive as well as Negative.
- 8.37 If the Council has developed general policies which state that cumulative impact will be a determining factor in the consideration of planning applications these should be provided as part of the LIR in support of the concerns that the Council have.
- 8.38 Should the timing of other developments within the Council's area coincide with this particular development there will be a cumulative impact with regard to Access, Traffic and Transportation, which if not mitigated would have the potential to cause a **Negative** impact.
- 8.39 It is imperative that consideration is given to the need to incorporate an obligation on the development Applicants to liaise and consult with each other should their respective development construction activities coincide. If suitable measures are set up, agreed and approved by the LPA the residual impact at worst would be **Marginally Negative** during the combined intensive peak construction periods.

## Construction Method Statement (CMS)

- 8.40 No evidence to suggest that the principles of the draft construction method statements have been discussed with the various stakeholders, however it is stated that these will be agreed prior to construction, the mechanism for this would need to be set out and defined in order to understand the relationship between timing and duration of construction activities and how they will align with the TMP.

## Traffic Management Plan (TMP)

- 8.41 There is likely to be felling, thinning and haulage activities elsewhere in the Brechfa forest and surrounding forestry areas outwith the proposed development sites of Brechfa West and East, which will potentially impact upon the transport movements during construction. The updated ES under the general heading 'Planning Policy Context' highlights the need to co-ordinate all transport activities in the TMP, an understanding of the planned timing, type and number of transport movements needs to be evidenced.

- 8.42 The TMP is a fundamental aspect of this proposal and needs to be closely coordinated with the construction programme. A TMP should also contain details of a road damage methodology. The condition of the road before construction traffic commences will need to be assessed and agreed with the overseeing highway authority in order to establish future liability.

### **A485 Trunk Road**

- 8.43 The technical note presented at Appendix 9.2 of the ES does not make any reference to consultation with the overseeing organisation that is responsible for the operational safety and maintenance of the A485 trunk road. The technical note covers the geometric criteria in some detail, but does not evidence any assessment as to the safety aspects of the siting of a junction at the proposed location.

### **Delivery of Mitigation Measures**

- 8.44 The Council is concerned as to how controls will be imposed upon the number of vehicle movements to and from the wind farm development in a specified period during its construction and, possibly, on the routing of such movements particularly by heavy vehicles.
- 8.45 Having reviewed the Requirements set out in the draft Development Consent Order we consider that the draft DCO does secure the delivery mechanism for ensuring that those mitigation measures are brought into effect. The Council must approve the Traffic Management Plan and Access Plans prior to the commencement of development.
- 8.46 Any development that takes place prior to the approval of the Traffic Management Plan and the Access Plans will be unlawful.

## 9.0 SOCIO-ECONOMIC IMPACTS

### Assessment Methodology

- 9.1 The Council has repeatedly expressed its concern regarding the proposed method of assessment the applicant has used to establish the proposal's impact upon the local economy. The Brechfa Forest region offers a diverse range of activities such as mountain biking, horse riding, fishing and walking and is enjoyed by locals and visitors for its scenic qualities. There are many small and medium businesses in the area which are directly and indirectly linked to these activities as well as a large number of businesses offering tourist accommodation. The applicant has not established this baseline or described the area's socio-economic conditions in any detail. Without this it is not possible for the Council to effectively assess the proposal's impact upon important local employment sectors such as tourism. This sector is currently worth £332 million pounds to the Carmarthenshire economy based upon the 2010 STEAM report, which represented an increase of £50 million compared to the 2008 report.
- 9.2 In view of the above the Council considers that the applicant has failed to comply with para 5.12.4 of National Policy Statement EN-1 (Overarching Energy Policy) which states that *"...Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies"*. The Council therefore considers the lack of assessment to represent a **NEGATIVE** impact as it is unable to comprehensively assess the impact of the proposal on the local economy.

### Tourist Receptors / Economy

- 9.3 Whilst the applicant has not established a socio-economic baseline of the area, the Council has received a Tourism Impact Analysis from RES UK and Ireland who propose to develop a wind farm to the immediate north of Brechfa Forest West. The Council requested that this study be carried out and is currently considering its conclusions. A copy of the study can be viewed at **Appendix 9.1** of the LIR. The study provides some information on the number and type of accommodation in the area. The Council considers that many of these providers are being used by visitors who are enjoying the area for the qualities / activities detailed at para 9.1 of the LIR. The Council considers that the presence of a wind farm of the scale proposed could erode these qualities and change the perception of those visiting the area. This could have a negative impact upon the number of people visiting the area which could in turn have detrimental impacts upon employment in the area's tourist sector. The Council considers therefore that the proposal will have a **NEGATIVE** impact upon the following: Employment in Tourist based businesses; the area's tourist resource; tourist receptors; and future tourism potential in the area.

### Mitigation

- 9.3 Although the applicant has provided details of a proposed way marked route through the forest and the provision of two bridges, the level of mitigation falls below the Council's expectation, given its concerns in relation to the impact upon tourism. In accordance with NPS EN1 the Council requests that the IPC has full regard to paras 5.12.6 and 5.12.8 in addition to 5.12.9 which states the *"IPC should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts"*

of the development". The level of mitigation currently proposed is considered ineffective to address the Council's concerns. This is therefore considered a **NEGATIVE** impact.

### **Employment Opportunities / Inward Investment**

- 9.4 The applicant states in para 11.60 that it will intend to source construction materials and labour locally where possible during the construction phase and it is estimated that the construction of the wind farm will lead to the generation of 150 jobs. It is considered that providing the labour is locally sourced, the short term employment benefits of the proposal will result in a **POSITIVE** impact. During operation the ES states at para 11.103 that 4 – 5 full time jobs will be created. This is seen as the developer investing in the area, providing the jobs are locally sourced. This is considered a **POSITIVE** impact albeit despite the small number of positions being created.

### **Local Supply Chain Economic Benefits**

- 9.5 Local suppliers of raw materials, manufactured goods and services are likely to benefit from the proposed construction stage of the wind farm. For example local accommodation providers may be able to accommodate labour that is required from outside the area. This will have **POSITIVE** short term impacts.

## 10.0 PUBLIC ACCESS AND RECREATION

- 10.1 The application site and the wider Brechfa Forest area has an extensive network of public rights of ways, bridleways, paths and open access land that allows people to enjoy the countryside. This section of the LIR will assess how the proposed development will impact on the public access network and whether the mitigation proposals put forward are adequate to overcome the scheme's negative impacts.

### ASSESSMENT METHODOLOGY

- 10.2 The Council considers that the assessments carried out in order to derive the baseline data of user types, frequency of usage and the distribution of the users within the forest were too narrow and limited. Whilst it is acknowledged that Recreational Groups should have been consulted, the groups do not represent the majority of users of the forest who are not members of organised recreational/ecological groups, but are individual or family visitors from the surrounding settlements or from outside the county.
- 10.3 Para 11.6 of chapter 11 of the ES refers to the Council's Rights of Way Officer being consulted and asked to provide comments on the recreational uses of the site and surrounding area. The paragraph doesn't include the comments from the Council's Rights of Way Officer who advised the Developer that the Council do not possess up to date information on user numbers and frequencies of usage, and advised to contact FCW who manage the forest on a day to day basis and may have relevant data. It was also recommended that site surveys of users should be carried out over a time period. Paragraphs 11.35 and 11.36 refer to local Rambling and walking groups that were consulted. The information gained was of limited value and for one group their information was contradictory. The Developers chose not to follow up their enquiries with those groups for more detailed information and/or clarification. Paragraph 11.37 acknowledges that the forest is used by individuals on a more regular basis than by the formal walking and equestrian groups but has not addressed this in their assessments. Paragraph 11.39 refers to information provided by the Council from the Carmarthenshire Riders confirming that a number of tracks are ridden by the group. However, the data hasn't been reproduced in figure 11.3 which only shows one route that is ridden by the group. The maps provided by Carmarthenshire Riders Group as part of RWE's consultation clearly show extensive use of the PROW and forest tracks in both the west and east areas of the forest.

### PLANNING POLICY CONTEXT

- 10.4 Para 11.11 of the ES refers to an extract from TAN 8 which states that "*developers and local authorities are encouraged to enter into constructive dialogue over the positive provision for visitors to wind power projects and ways in which any negative impacts can be minimised*". It is considered that the applicant has not adequately addressed this issue in the Public Access Management Plan (see Appendix 11.1) with mitigation measures to reduce the potential loss of visitors to the site during the construction phase, particularly if Brechfa East and Bryn Llewellyn get approval and commence construction on a similar timescale as Brechfa West. Because of the duration of the construction phase, visitors may be deterred from visiting the area, especially if the two other wind farm projects are undergoing construction at the same time. In order to attract those visitors back to the site during operation, mitigation measures should be proposed for the operational phase.

## ASSESSMENT OF CONSTRUCTION IMPACTS

- 10.4 The Council considers that the development will have an adverse effect on the PROW network and open access land within the forest, during the construction phase. The area offers a wide range of habitats including broadleaved woods, pine forest, mountain, moorland and deep valleys. The forest therefore attracts a wide range of visitors with varied and wide ranging topics of interest including walking, horse riding, cycling, bird watching and other ecological interests. All of the visitors, whether they be from the surrounding settlements or from outside of the county use the public rights of way and forest tracks within the forest to pursue their interests within the context of peaceful and tranquil surroundings which contribute to the genuine outdoor/countryside experience. It is possible that due to the lengthy 22 month construction period many more visitors than is anticipated will decide not to visit the site, which could intensify the impact. It is even more likely that this will be the case if all 3 wind farm projects commence within similar timescales, as the effects will be cumulative. The Council deems the impact on the site's public access and recreation resource to be **NEGATIVE** during the construction period.

## PUBLIC ACCESS AND RECREATION IN THE WIDER VICINITY

- 10.5 The developer acknowledges that some visitors may be put off using the forest during construction and states that those visitors would use alternative PROW in the area surrounding the site.
- 10.6 The Council does not wholly agree with this statement. The Council has published a Rights of Way Improvement Plan (ROWIP), which aims to ensure the rights of way network is easy to use and enjoyable, whilst the Council makes a commitment in the ROWIP to continue to work in partnership with all relevant, interested parties to achieve improved facilities for countryside access. Based on these two aims the Council has worked with FCW in prioritising the improvement of PROW and access to Brechfa Forest as a destination for informal recreational pursuits. Therefore with Council resources being directed into Brechfa Forest, PROW in other areas of the County, including the wider vicinity around Brechfa Forest have not received those resources, so the majority of the PROW network in the wider vicinity of the forest may be impassable, unsigned and not promoted. This is evidenced from the consultation data submitted by the Lampeter Ramblers Group. They have identified on their map of the Brechfa West area that the majority of PROW to the west and south of the forest are impassable.
- 10.7 Furthermore, the general public are more comfortable and confident accessing the countryside: a) on land that is publicly owned compared to privately owned land on which they perceive the possibility of confrontations with private landowners, aggressive dogs and farm livestock; b) adequately signed and well maintained routes; c) Promoted with leaflets/guidebooks. Brechfa Forest fulfils the 3 criteria in being publicly owned, has well maintained and signed PROW and is promoted by both FCW and CCC in a number of leafleted walks, but the area surrounding the forest does not. On this basis and if further wind farms within SSA G are approved and commence construction at the same time, there is considered to be a **NEGATIVE** impact upon public access and recreation in the wider vicinity

## ASSESSMENT OF OPERATIONAL IMPACT

- 10.8 The Council considers that the proposal would have a **NEGATIVE** impact on the PROW and open space network during operation due to a reduction in the 'countryside experience' of visitors. The wind farm will result in man-made infrastructure being placed in the locality which will be of a scale that would harm the amenity of those using this 'semi -natural' environment. Some users may choose not to use the area at all, or not as often due to the likely visual impacts of the turbines and/or because of noise that they may generate. The character of the area will undoubtedly change as a result of the proposed development, in that it will feel less remote, more developed and it will not have the same feeling of tranquillity at present.
- 10.9 The fact that the site is a commercial forest where logging and machinery are continually operating is accepted, however, the wind farm will be a permanent feature for 25 years.

## PROPOSED MITIGATION MEASURES

- 10.9 The Public Access Management Plan (PAMP) outlines the proposed mitigation measures to overcome construction and operational impacts the wind farm may cause. The provision of additional and improved signage, two new bridges crossing the Pib river, a new waymarked route through the forest (west-east) and the diversion of footpaths to create circular routes during the construction phase are seen as a **POSITIVE** impacts of the development and provide some mitigation.
- 10.10 The level of mitigation and enhancement opportunities within the PAMP could be improved further whilst also reducing the negative impacts of the scheme during the operational phase of the development. The following should be considered:

### Definitive Route of FP13/77

- 10.11 Information from the consultation revealed that horse riders and members of the Trail Riders Federation regularly use the route within the forest even though there are no rights for motorcycles or horses. Consideration should be given to upgrading the footpath to bridleway status from its junction with byway 17/22 in the south to its junction with footpath 13/90 which would continue as a bridleway until its junction with the ORPA at Coedlannau fawr. This would give horse riders and cyclists a legal right of access to the forest from the north, where there are many horse owners who have to box their horses and drive them to Brechfa in the south in order to access the forest. Alternatively or in addition, a bridleway could be dedicated from Blaen Gwyddgrug into the forest and from there to footpath 13/77.

### Cross County Long Distance Route

- 10.12 Carmarthenshire Riders have indicated on their consultation maps a route that passes west (G/Ref sn458297) to east (G/Ref sn523319) through the forest. This could be dedicated as a public bridleway

### Car Parking

- 10.13 Car parking areas could be improved to accommodate horse owners who box their horses and travel from within and from outside the county to Brechfa. There is a need

for more parking provision in the west of the forest (Llanllawddog area), particularly in the vicinity of the access point of the cross county long distance route.

### **Public Right of Way Improvement Fund**

- 10.14 It is anticipated that the construction of the wind farm will deter a percentage of visitors from visiting the forest. It is also assumed that of those who are deterred, a percentage of them would not return during the operational phase. It is assumed that a proportion of those visitors who would not return post construction would be from outside of the county. It is therefore important to offset that potential loss by encouraging more visitors from the settlements surrounding the forest to make it their preferred recreational destination. A means of achieving this is by improving the PROW network in the wider vicinity of the forest. Knowing that PROW have been improved may also attract visitors from outside the area looking for safe well signposted routes. The general public would be far more inclined and confident to use routes which are easy to access and easy to follow. As a consequence of the improvements and the higher levels of usage, there would be wider ranging benefits in contributing to the Welsh Government's agendas in reducing car usage and the carbon footprint, plus promoting healthier lifestyles and well being with the increase in exercise through walking, cycling and horse riding.
- 10.15 The Council has identified an area outside of the application site (**Appendix 10.1 refers**) where the improvement to PROW should take place. This is also links in effectively to the applicant's commitment to improve PROW within the site. The Council would be requiring an annual commuted sum from the applicant during the lifetime of the permission in order for the Council to improve the network of PROW identified.

## 11.0 SHADOW FLICKER

11.1 Shadow flicker can occur when the sun passes directly behind the rotors of a wind turbine, casting a shadow over neighbouring properties. As the blades rotate the shadow can flick on and off but only occurs inside buildings where the flicker appears through a narrow window opening. TAN8: Planning for Renewable Energy (2005) states that shadow flicker “is seasonal and only lasts for a few hours per day” (WAG, 2005).

11.2 Chapter 17 of the Environmental Statement considers the potential shadow flicker impact associated with the proposed development. This considered predicted impacts, mitigation measures and the cumulative impact of any effect.

11.3 The ES states:

### ***Predicted Impacts***

*17.22. As none of the properties located within 900m of a turbine are within the potential shadow flicker zone, no impacts are predicted during the operational phase.*

### ***Proposed Mitigation Measures***

*17.23. Should micro-siting lead to turbines potential affecting residential properties through shadow flicker, RWE NRL will reassess the potential for shadow flicker effects. Depending on the micro-siting amendments required, this reassessment may either be a review of locations (with reference to the 130 degrees either side of north and within 900m) and/or remodelling using Resoft Wind farm Software.*

### ***Residual Impacts***

*17.24. There are no residual impacts associated with shadow flicker during the operational phase.*

### ***Cumulative Impacts***

*17.25. Cumulative shadow flicker impacts could arise if properties are at risk from potential shadow flicker impacts as a result of more than one wind farm. In this instance, there are no properties that will be affected by the Brechfa Forest West Wind Farm along with any other wind farms in the vicinity of the site. Therefore, no cumulative shadow flicker impacts are predicted.*

11.4 The Council has engaged with consultants to assess the methodology and assessment of the Shadow flicker in the ES. Overall the Council is satisfied with the conclusions reached by the developer and level of assessment carried out. On this basis shadow flicker is considered to have a **NEUTRAL** impact.

## C POLICY

### 12.0 RELEVANT DEVELOPMENT PLAN POLICIES AND AN APPRAISAL OF THEIR RELATIONSHIP AND RELEVANCE TO THE PROPOSALS

12.1 This section identifies the local planning policies relevant to the proposed development, along with details other local planning policies in existence or emerging. A list of the local planning policies considered applicable to the development proposal will be outlined, followed by an assessment of the proposal against these policies.

12.2 It is for the IPC to assess the overall acceptability or otherwise of the proposed development, however, it is considered important for the Council to provide an assessment of the proposal against its own adopted planning policies contained within the local plan. Whilst the IPC will use the National Policy Statements (NPSs) as the main policy tools when assessing the proposed development, the local policy context will be a material consideration during the process. The assessment that follows below is based on the judgment of Council officers and should also be read in conjunction with Section B which explores the planning impacts of the proposal in greater detail.

#### **Carmarthenshire Unitary Development Plan (CUDP) (2006)**

12.3 The Carmarthenshire Unitary Development Plan was formally adopted on 19<sup>th</sup> July 2006 and is currently the extant plan for the County. The CUDP provides the basis on which development control decisions are made and will guide development in the County for 15 years from the base date (subject to periodic review) which in this instance is from 2001 – 2016.

12.4 Section 54A of the Town and Country Planning Act (as amended), places the Development plan central to the decision making process, particularly in relation to the evaluation of planning applications, requires that:

*“Where, in making any determination under the Planning Acts, regard is to be had to the development plan, the determination shall be made in accordance with the plan unless material considerations indicate otherwise.”*

12.5 The following CUDP policies are considered relevant to the consideration of the proposed Brechfa Forest West Wind Farm. Full details of each policy are contained in Appendix 12.1 of the LIR:

- |       |               |   |                                       |
|-------|---------------|---|---------------------------------------|
| i)    | Policy CUDP9  | - | Landscape / Environment               |
| ii)   | Policy CUDP12 | - | Tourism                               |
| iii)  | Policy CUDP14 | - | Renewable Energy                      |
| iv)   | Policy GDC1   | - | Sustainable Development               |
| v)    | Policy GDC2   | - | Overall Development Policy            |
| vi)   | Policy GDC3   | - | Development in the Countryside        |
| vii)  | Policy GDC8   | - | Visual Impact and Topography          |
| viii) | Policy GDC10  | - | Ancillary Developments                |
| ix)   | Policy GDC11  | - | Access and Parking Facilities         |
| x)    | Policy GDC12  | - | Generation of Traffic                 |
| xi)   | Policy GDC30  | - | Community Benefits                    |
| xii)  | Policy T3     | - | Highway Considerations of Development |

xiii)	Policy BE1		Scheduled Ancient Monuments and Archaeological Remains of National Importance
ix)	Policy BE2	-	Archaeological Sites
x)	Policy BE3	-	Archaeological Assessment
xi)	Policy EN1	-	Site Protection - International Sites
xii)	Policy EN2	-	Site Protection – National Sites
xiii)	Policy EN3	-	Site Protection – Regional/Local Designations
xiv)	Policy EN5	-	Protection and Enhancement of Flora and Fauna
xiv)	Policy EN6	-	Retention of Habitats
xv)	Policy EN7	-	Provision for Protected Species
xvi)	Policy EN8	-	Landscape of Major Importance for Flora and Fauna
xvii)	Policy EN9	-	Site Protection – Habitats and Species of Concern
xviii)	Policy EN10	-	Protection of Controlled Waters and Water Resources
xix)	Policy EN11	-	Ancient, Broad-leaved and Mixed Woodlands
xx)	Policy EN13	-	Hedgerows
xxi)	Policy EN15	-	Tree Planting
xxii)	Policy EN16	-	Special Landscape Areas
xxiii)	Policy EN21	-	Agricultural Land
xxiv)	Policy REC7	-	Protection of Recreational Open Space
xxv)	Policy REC10	-	Rights of Way
xxvi)	Policy REC11	-	Development of Rights of Way Network
xxvii)	Policy UT1	-	Infrastructure in New Development
xxviii)	Policy UT2	-	Electricity Lines
xxix)	Policy UT3	-	Ancillary Developments
xxx)	Policy UT5	-	Renewable Energy
xxxii)	Policy UT6	-	Wind Energy
xxxii)	Policy UT8	-	Surface Water
xxxiii)	Policy UT12	-	Pollution
xxxiv)	Policy UT14	-	Culverting Watercourses
xxxv)	Policy MWM1	-	New Mineral Sites and Extensions to Existing Sites

### **Deposit Local Development Plan (2006 - 2021) – Pre-Submission to Welsh Government**

- 12.6 The provisions of the Planning and Compulsory Purchase Act 2004 and the Local Development Plan (LDP) Regulations 2005, place a requirement on Carmarthenshire County Council as Local Planning Authority to prepare a LDP for its administrative area. Upon adoption, the LDP will supersede the existing Carmarthenshire UDP and will be used to guide and control development.
- 12.7 The LDP is currently on deposit and is projected to be submitted to the Welsh Government for an Examination in Public to be conducted by an Inspector appointed by the Planning Inspectorate during Autumn 2012 and is scheduled for adoption in the Summer 2013.
- 12.8 Policies relevant to the proposed development are contained within the Renewable Energy chapter of the LDP. Policy RE1 - Large Scale Wind Power provides criteria against which developments are to be assessed. These are similar to those listed in the extant UDP policies UT5 and UT6, however, Policy RE1 also has a spatial dimension in that proposals should be located a minimum of 1500m away from the nearest residential property. This policy along with the rest of the LDP document will need to be assessed at a Public Examination before it becomes adopted and existing

national planning policies such as TAN8 will be material considerations in determining whether the policies are sound.

## Assessment of the Proposed Development Against Carmarthenshire Unitary Development Plan Policies

### Renewable Energy / Sustainable Development

- 12.9 The purpose of the proposed development is to produce electricity through the operation of wind turbines. Renewable energy sources such as wind do not rely on finite carbon based sources, but instead seek to harness continually replenished energy provided by the forces of nature. Using renewable energy to generate electricity, as opposed to gas, oil and coal, significantly lowers the release of carbon dioxide (CO<sub>2</sub>) and other air pollutants, and can therefore help mitigate the effects of climate change.
- 12.10 In order to reduce the threat of climate change, the UK and Welsh Governments have introduced a raft of renewable energy policies and targets. These are described in further detail in Section 13 of the LIR. The UDP contains a number of policies which relate to the promotion renewable energy development. The UDP contains a strategic policy which directly relates to renewable energy, namely **Policy CUDP14**. This will support renewable energy schemes which minimise energy and resource requirements, where appropriate. Whilst the policy indicates that location will be a key determinant in approving the proposal, it cannot be disputed that the proposed development will produce renewable energy to a significant degree, if in accordance with the figures presented in the applicant's ES. Para 5.22 of the ES states that with a likely output of between 56MW and 84MW per annum would save 115,386 tCO<sub>2</sub> per annum after a 1.1 year payback period as calculated in accordance with the Aberdeen University Macaulay Land Research Institute (AUMLURI) guidance (Nayack et al, 2008). This equates to a total saving of 2,757,725 tCO<sub>2</sub> over the 25 year lifetime of the development. On this basis it is considered that the proposal partially accords with Policy CUDP14. **Policies GDC1** (Sustainable Development), **GDC3** (Development in the Countryside), **UT5** (Renewable Energy) and **UT6** (Wind Energy) also indicate a general presumption in favour of renewable energy developments and those that minimise energy requirements, subject to specific environmental criteria Whether the proposal fully complies with the policies is considered further below.
- 12.11 Notwithstanding the scheme's renewable energy benefits, it is considered that the materials used to construct the proposed access track would represent a significant waste of natural resources and would conflict with criteria (ii) and (v) of **Policy GDC1** (Sustainable Development). The proposed access off the A485 will require several thousands of tons of crushed stone to be quarried for the surface of the track. A perfectly adequate track exists approximately 180m to the south west, which was used by construction traffic in relation to Alltwalis wind farm. Further natural resources would be saved by the reduced number of vehicular deliveries.

### Landscape and Visual Impacts

- 12.12 In relation to landscape and visual impacts, the Council has identified a number of viewpoints from the ES which illustrate the development as having a significant adverse impact upon landscape and visual amenities. Furthermore the scale and physical impact of the proposed turbines, at 145m in height, would have a significant

adverse impact upon the amenity of neighbouring residential occupiers. This impact will be intensified when viewed cumulatively with other proposed and existing wind farms. Harm will also be experienced by receptors using the landscape for recreational purposes, in that the natural qualities of the local environment will be demonstrably harmed by the introduction of the proposed wind turbines.

- 12.13 Further landscape and visual impacts will be caused by the proposed new access track off the A485. The impacts of the alternative routes described in the ES would be expected to be significantly lower in magnitude than the proposed route. On this basis the proposal is considered to be contrary to **Policies GDC2** (Overall Development Policy), **EN8** (Landscape Features of Major Importance for Flora and Fauna), **EN13** (Hedgerows), **UT5** (Renewable Energy) and **UT6** (Wind Farm), which amongst other criteria indicate that development should not have a significant adverse impact on landscape and visual amenity, particularly the amenity of neighbouring occupiers and the quality of landscape features. **Policy GDC8** (Visual Impact and Physical Topography) states that proposals should have full regard to the physical character and topography of the site by avoiding conspicuous locations on prominent skylines and ridges and locations that would have an adverse visual impact on landscape and the general locality of the site. In view of this the proposed development is considered to also conflict with the intentions of Policy GDC8.

### **Biodiversity**

- 12.14 The Council has identified a number of unacceptable impacts upon priority species and habitats and ecological connectivity. The proposed access from the A485 for example will result in significant loss of hedgerows which are important for their landscape and nature conservation value and thus contrary to **Policy EN13** (Hedgerows).
- 12.15 No acceptable mitigation measures to safeguard nightjar habitat have been put forward by the applicant, within the Habitat Management Plan. **Policies EN5** (Protection and Enhancement of Flora and Fauna) and **EN9** (Site Protection – Habitats and Species of Biodiversity Concern) will therefore be in breach. Notwithstanding this, Policy EN9 does indicate that proposals will be permitted if there reasons for the proposed development that outweighs the need to safeguard the site or feature. The proposal's renewable energy benefits are an important consideration in this regard.
- 12.16 Although significant tree clearance is required to make way for the proposed turbines, and that these trees relate to a commercial forest where tree removal continually takes place, there will still be a loss of habitat and species as a result of the proposal. Approximately 3.77Ha of biodiversity action plan (BAP) habitat will be lost and insufficient acceptable mitigation has been put forward to address this loss. On this basis Policy **EN9** (Site Protection – Habitats and Species of Biodiversity Concern) is considered to be in breach.
- 12.17 The forest is not part of a designated habitat although the applicant in conjunction with FCW has made a commitment to providing compensatory re-planting outside the site boundaries. No details, however, of where this planting is to take place has been provided.

## Noise

12.18 Whilst the applicant's ES states that the proposed development is within the noise ratings set by ETSU-R-97, when assessing the proposal explicitly against the UPD policies, it is considered that the noise emissions from the turbines as well as in combination with existing and proposed wind farms could harm the amenity levels of neighbouring residential occupiers. In doing so the proposed development would be in conflict with criterion (v) of **Policy GDC2** (Overall Development Policy). Furthermore it is considered that the proposal is also in conflict with criterion (vi) of **Policy UT6** (Wind Turbines) in that demonstrable harm would be caused to the amenity of residents.

## Transportation, Access and Transportation

12.19 The concerns the Council has with regard to the proposed site access have already been referred to above, in that it will result in significant, landscape, visual, ecological and environmental impacts, whilst also increasing the carbon footprint of the development. The access is considered to be contrary to the following UDP Policies: **CUDP9** (Landscape / Environment Policy, **GDC1** (Sustainable Development) **GDC2** (Overall Development Policy), **GDC8** (Visual Impact and Physical Topography), **EN8** (Landscape Features of Major Importance for Flora and Fauna), **EN13** (Hedgerows), **UT5** (Renewable Energy) and **UT6** (Wind Farms).

12.20 Moreover the proposed site access by virtue of its close proximity to residential dwellings will result in significant impacts upon the amenities of these occupiers due to unacceptable noise and disturbance associated with the movement of heavy and abnormal loads accessing the site. Policy **GDC12** states that where the generation of traffic causes harm to the amenity of residents living alongside the highway network, then proposals should be refused.

12.21 It is unclear from the ES what the proposed cumulative transportation impacts will be upon residents living alongside the delivery route, if the proposed developments at Brechfa Forest East and Bryn Llywelyn were to be approved. The applicant has submitted insufficient evidence for this to be assessed. **Policy T3** (Highway Considerations of Development) states that development proposals will be permitted provided that the capacity of the local highway network is sufficient to serve the development without detriment to the safety of road users and pedestrians. Without knowing the cumulative volumes of traffic proposed, the Council cannot test the proposal against this policy.

## Cultural Heritage

12.22 Cultural heritage assets include for example archaeological sites, Scheduled Ancient Monuments (SAMs), historic landscape, listed buildings, Registered Parks and Gardens and Conservation Areas. The applicant's ES provides an assessment of cultural heritage assets within the site and within 5km of the proposed turbines. This identifies 3 SAMs within the site and 7 within 5km of the proposed turbines. The SAMs within the site (bronze aged barrows) are obscured by the dense forestry therefore there will be a negligible impact upon their setting, whilst construction works will not disturb them. Those within 5 km range, consist of Bronze Age barrows, Standing stones, the remains of a Norman Motte and a Motte and Bailey castle. The setting of these assets will only be marginally changed.

- 12.23 The listed buildings identified within the study area will not be significantly harmed due to the distance from the proposed turbines and not being within the ZTV. On this basis it is considered that the proposal complies with the UDP policies which relate to the historic environment. There were no conservation areas or registered parks and gardens within the study area.
- 12.24 In view of the above appraisal it is considered that the proposal complies with **Policies BE1** (Scheduled Ancient Monuments and Archaeological Remains of National Importance), **BE2** (Archaeological Sites), **BE3** (Archaeological Assessment) and **BE8** (Setting of a Listed Building).

### Land Drainage

- 12.25 Policy UT8 (Surface Water) requires that development proposals take into account the impact of surface water drainage and water quality and include measures to manage its disposal. Advice has been from the Environmental Agency regarding key issues relating to the proposals impact upon land drainage and it is considered that the proposed development satisfies the requirements of Policy UT8.

### Public Access

- 12.26 **Policy REC10** relates to Public Rights of Way and the need to protect the existing Rights of Way network from inappropriate development and to enhance the rights of way network through the provision of additional routes. It is considered that the development will have an adverse effect on the PROW network within the forest, particularly during the construction phase. The area offers a wide range of habitats including broadleaved woods, pine forest, mountain, moorland and deep valleys. The forest therefore attracts a wide range of visitors whose 'countryside experience' will be harmed by the scale and manmade appearance of the proposed wind turbines. Mitigation, proposed by the developer, in the form of a new way marked route is welcomed and seen as a positive aspect of the scheme, however, this will not overcome the impact described. Further mitigation has been suggested by the Council in the form of a Rights of Way Improvement Fund whereby the network of rights of way outside the forest is improved in terms of condition and signage in order to attract more people. The developer would provide a financial contribution to the Council through a Section 106 agreement in order to carry out the improvements. To date the applicant has not agreed to this.

### Summary

- 12.27 The assessment of the proposal against existing UDP policies has found the development to have unacceptable impacts in terms of amenity, landscape and visual, ecology, public access, transportation, noise and the unnecessary use of natural resources. The proposal is considered to conflict with the following Policies of the UDP: **GDC1 GDC2, GDC8, GDC12, EN5, EN8, EN9, EN13, REC10, T3, UT5 and UT6**. These negative impacts should be accorded significant weight, whilst many will be experienced cumulatively by the local environment and populace. Notwithstanding this, the renewable energy benefits of the scheme will deliver positive impacts that accord with specific criterion contained within **Policies CUDP14, GDC1, GDC3, UT5 and UT6**. Furthermore the proposal is in accordance with UDP policies which relate to land drainage and cultural heritage.

12.28 The above assessment and the conclusions made are material considerations for the IPC to take into account when making their recommendation.

**Supplementary Planning Guidance (SPG): Major Wind Farm Development in the Brechfa Forest Area (July, 2008)**

12.29 This SPG was adopted by the Council in July 2008 to provide planning guidance for wind farm development in the Brechfa Forest area for the period to December 2010. A copy of the SPG can be viewed at **Appendix 12.2** of the LIR . The SPG had three main purposes:

- To provide information on the character of the Brechfa Forest Area and its short term development pressures and prospects;
- To encourage developers to design their proposals with maximum sympathy for the local environment; and
- To assist determination of applications for major wind farm development.

12.30 The SPG has not been reviewed or updated but its contents are still regarded as a material planning consideration for the determination of development proposals. For instance the Offsetting principle described at para 7.1 seeks to get developers to commit to providing environmental benefits to offset the adverse effects of wind turbines on the landscape e.g. enhance the biodiversity value of scarce habitats through additional planting. The applicant has provided a draft Habitat Management Plan with the application documents outlining opportunities which could overcome the negative impacts of the proposal.

12.31 The SPG makes reference to the recommendations and conclusions of the report published by Arup consultants entitled: *Carmarthenshire County Council TAN 8 Annex D Study of SSA G: Brechfa Forest (September 2006)*. The Council had commissioned this report in order to identify a preferred area or areas for large scale wind farms within the boundaries of SSA G working within the context of the indicative capacity targets. The report identified 4 refined areas within SSA G which represented the most appropriate areas for wind turbine development from a landscape and visual perspective, however, the Council chose not to adopt these areas as part of the SPG, choosing rather to assess areas based on wider environmental impacts (e.g. biodiversity and noise) on a case by case basis. Nevertheless the recommendations and conclusions of the Arup study are considered material considerations, especially when considering landscape and visual impacts.

12.32. The application site is located within one of the 4 areas refined by the study (**APPENDIX 12.2 refers**). Notwithstanding this, the recommendation at para 5.5 of the guidance is to accept turbines around 130m in height in the refined areas. In the case of the proposed development, the turbines nominated will be 145m to tip height. The guidance does not encourage turbines of this scale within the refined areas; therefore the appropriateness of those proposed by the applicant in the chosen landscape is questionable.

### 13.0 NATIONAL PLANNING POLICY

- 13.1 The proposed Brechfa Forest West Wind Farm is classed as a nationally significant infrastructure project (NSIP) (as defined by Section 15(2) of the Planning Act 2008), by virtue of the fact that it is an onshore generating station with an installed capacity over 50MW. The IPC (or subsequent body) will determine the application in accordance with relevant National Policy Statements (NPS), except where this would result in breaches of international obligations, duty or law, or where adverse impacts of the development outweigh the benefits (Section 104 of the Planning Act 2008). The NPSs are the main policy documents for assessing NSIPs and form the primary basis for decisions by the IPC.
- 13.2 Notwithstanding the role NPSs play in the decision making process, Section 104 of the Planning Act 2008 states that the IPC panel or Council must also have regard to any reports, documents, or other matters that *“are both important and relevant to (the) decision”*. As such Welsh national planning policy will be relevant.

#### Planning Policy Wales

- 13.3 Planning Policy Wales (PPW) (WAG, 2011) sets out the Welsh Government’s (WG) land use aims and objectives which include promoting *“the generation and use of energy from renewable and low carbon energy sources at all scales”* (para.12.1.4). It also seeks to secure *“an appropriate mix of energy provision for Wales whilst...minimising environmental, social and economic impacts”*, in part by *“strengthening renewable energy production”* (para. 12.8.6). Para 12.8.9 states that *“local planning authorities should facilitate the development of all forms of renewable and low carbon energy”*, and should *“make positive provision by...ensuring that development control decisions are consistent with national and international climate change obligations, including contributions to renewable energy targets and aspirations”*. At the same time, local planning authorities must *“ensure that international and national statutory obligations to protect designated areas, species and habitats and the historic environment are observed”* and *“that mitigation measures are required for potential detrimental effects on local communities, whilst ensuring that the potential impact on economic viability is given full consideration”* (para. 12.8.10).

#### Technical Advice Note 8 (TAN 8) (2005): Planning for Renewable Energy

- 13.4 TAN 8 identifies 7 Strategic Search Areas (SSAs) within Wales each encompassing sufficient land considered suitable to locate large scale onshore wind power developments, with the aim of delivering the Welsh Government’s energy policy aspirations. Details of the SSAs and SSA G which is located in Carmarthenshire are detailed at **Appendix 4.1 and 4.2**.
- 13.5 Para 2.5 of TAN 8 states that *“for each of the SSAs there are indicative targets of installed capacity (in MW)...compiled on the basis that the majority of the technically feasible land for wind turbines in each area is utilised. Although the Assembly Government has an established target of 800MW of installed onshore capacity...SSAs may be capable of accommodating up to approximately 1120MW of additional capacity. This degree of flexibility is necessary to ensure that the proposals for a total of 800MW come forward by 2010. The installed capacity targets are intended to assist the planning process and are not to be seen as the definitive*

*capacity for the areas. There may be practical, technical and/or environmental reasons why the capacity may be more or less than that indicated”.*

- 13.6 SSA G (Brechfa Forest) has an indicative capacity target of 90MW, although the commentary below Table 1 of TAN8 states that this figure represents a  $\frac{1}{3}$  reduction on the maximum capacity identified by Garrad Hassan as reviewed by Arup in their 2005 report. Currently the operational wind farm at Alltwalis contributes 23MW towards that target, whilst two planning applications are currently being processed by Carmarthenshire LPA proposing 48.3MW (Bryn Llywelyn) and between 24 – 36MW (Brechfa Forest East) respectively (see Part A, Section 4 for further details of these schemes).
- 13.7 In July 2011 the Welsh Government Minister for Environment and Sustainable Development wrote a letter to Welsh LPAs providing clarification on the maximum installed capacities for each SSA in context with the WGs energy policy aspirations set out in “a Low Carbon Revolution” which identifies Wales’ sustainable energy potential to 2020/2025. **(see Appendix 13.1 for copy of letter)**. A written statement by the First Minister dated 17<sup>th</sup> June 2011 also reflects the content of Minister for Environment and Sustainable Development’s letter **(See Appendix 13.2)**
- 13.8 The letter states: *“The potential estimated in the Low Carbon Revolution Energy Policy Statement was based on the maximum capacities that we considered appropriate for the SSAs in TAN8 in 2005. The maximum capacities of the SSAs as provided for and referenced in TAN8...provide for almost 1700 megawatts of onshore wind across the SSAs. The remaining 300MW are anticipated to come from a combination of developments under 25MW, brownfield sites as well as community and local schemes and a contribution from micro-generation.”* The maximum capacity for SSA G (Brechfa Forest) is identified as 132MW.
- 13.9 The letter continues by stressing that all decision makers in Wales, including the IPC and its successor recognise the spatially specific policy outlined in TAN8 and to respect that fact that SSAs have a finite environmental capacity and output should not exceed the maximum levels assessed in TAN8 i.e. 132MW for SSA G. The IPC should also be mindful that the two LPA planning applications for wind farms at Bryn Llywelyn and Brechfa Forest East could be determined before a recommendation is made by the IPC on Brechfa Forest West, and that these decisions could have implications on the maximum installed capacity for SA G identified in TAN8.
- 13.10 The above national policies and letter and statement of clarification issued by the Welsh Government are considered material considerations for the IPC to take into account before issuing its recommendation.

## **D PROVISIONS, REQUIREMENTS AND OBLIGATIONS**

### **14 CONSIDERATION OF THE PROVISIONS AND REQUIREMENTS WITHIN THE DRAFT DEVELOPMENT CONSET ORDER (DCO)**

- 14.1 This section of the LIR considers the provisions and requirements outlined in the draft DCO and provides commentary and suggested changes where relevant. The Council interprets that the 'Requirements' in the draft DCO having the same purpose as planning conditions, therefore they have been assessed using the six tests for conditions outlined in Welsh Office Circular 35/95.

#### **PROVISIONS**

##### *6. Power to Deviate and Part 1 Authorised Development of Schedule 1 Authorised Project*

- 14.2 This provision in the DCO would allow the developer to move turbine locations or underground cables for example if ground conditions were unsuitable at the exact locations specified on plan. The applicant states in para 3.91 of the ES that '*micrositing would be used to allow adjustment within a defined radius of the indicative turbine and infrastructure locations (up to 50m)*'. However the submitted drawings (ref: BFW\_PLAN02\_Worksplan\_01 to) show the proposed limit to deviate as being 60m for the turbines and approximately 90m in relation to the on-site borrow pit when scaled. The Council requires clarity regarding this inconsistency if the wording of the provision is to be approved.

##### *15. Felling or lopping of trees etc*

- 14.3 Provision 15(3) makes reference to allowing the undertaker to remove any hedgerows within the Order limits that may be required for the purpose of the carrying out of the authorised development. The Council advises that this work is only permitted subject to the objectives of the HMP, particularly Objective 1.5 which sets out the re-establishment of hedgerows and tree lines between Mynydd Rhos Wen and the A485.

##### *Work No.1 of Part 1 Authorised Development of Schedule 1 Authorised Project*

- 14.4 Work No.1 refers to each turbine having a height to blade tip of up to 145 metres. The Council considers that Work No.1 should include the tower and blade dimensions as all assessments (e.g. Transport and Landscape and Visual) are based on the blade diameter of the turbines being 90 metres.

#### **REQUIREMENTS**

##### *3. Time Limits and Site Restoration*

- 14.5 Specific reference should be made to restoration of the site access area off the A485. The bellmouth should be closed up and landscaped to an acceptable standard by realigning with existing landscape features.

##### *5. Plans*

- 14.6 Refer to Para 15.3 of the LIR.

#### *6. Construction Traffic Management and Construction Method statement*

- 14.7 The Traffic Management Plan (TMP) should also contain details of a road condition methodology. The condition of the road before construction traffic commences will need to be assessed and agreed with the overseeing highway authority in order to establish future liability.
- 14.8 There is no reference to wheel cleansing in the Construction Method Statement (CMS). Facilities for wheel cleansing shall be provided on site in accordance with details submitted to and approved in writing by the Local Planning Authority, and shall include details of how water will be disposed of.

#### *12. Construction Hours*

- 14.9 Requirement 12 states that 24hr notice will be given to the LPA informing of traffic movements (movement of crane and turbine components) outside the times specified in Requirement 12. It is considered that this time period is too short and gives little warning to the Council to then inform emergency services etc. The movements are likely to relate to abnormal loads and could cause significant disruption along the road network therefore a longer period of forewarning needs to be provided. A period of 72 hrs is suggested.

#### *13. Habitat Management Plan*

- 14.10 The Council is satisfied with the wording of the requirement, however, considers that additional principles need to be set out in the draft Habitat Management Plan at Appendix 13.10 of the ES. Until these additional principles are incorporated into the HMP, the Council cannot agree to Requirement 13.
- 14.11 The HMP requires further development in identifying suitable areas for nightjar mitigation, whilst the 3.77ha of BAP habitat that will be lost as a result of the development has not been mitigated for in the ES. These are key areas for the HMP and for the applicant to overcome the scheme's impact. If suitable areas are found outside the application site in respect of nightjar and BAP habitat, then these would have to be secured through S.106 agreement as the land is outside the control of the applicant. The same applies to the PAWS habitat identified. The Council would want to see a mechanism for securing this gain.

#### *14. Access Management Plan*

- 14.12 The Council considers that the principles outlined in the Access Management Plan in the ES require further development. Further details of the Council's expectations are provided in Section 16 of the LIR. It is noted that the new way marked route proposed along the Afon Pib is partly outside the application site. This will need to be secured through a S.106 legal agreement as the applicant does not have control over land outwith the site boundary.

## 26 – 29.Noise Conditions

- 14.13 The Council is satisfied with the requirements listed at 26, 27, 28 and 29, although post consent noise monitoring is requested of the applicant. The Council proposed the following Requirements:

*Within 3 months from the commencement of operation of the wind farm, and every (x) years thereafter for the operational life of the wind farm, the wind farm operator shall, at the wind farm operator's expense, employ an independent consultant approved by the Local Planning Authority to assess the level of noise emissions from the wind farm at (XXX) [three (??)] properties to be agreed with the Local Planning Authority following the procedures described in the Guidance Notes.*

*The wind farm operator shall provide to the Local Planning Authority the independent consultant's assessment and conclusions regarding the operating noise emissions from the wind farm, including all calculations, audio recordings and the raw data upon which those assessments and conclusions are based. Such information shall be provided within 3 months of the date of the commencement of the study, unless otherwise extended in writing by the Local Planning Authority.*

## 15. DEVELOPMENT CONSENT OBLIGATIONS

- 15.1 Planning obligations or Section 106 (S.106) agreements have a positive role to play in the planning system. Used properly, they can remedy genuine planning problems and enhance the quality of development. They can provide a means of reconciling the aims and interests of developers with the need to safeguard the local environment or to meet costs imposed as a result of development.
- 15.2 Section 106 agreements will be sought only when where they meet the following tests:
- Necessary
  - Relevant to planning
  - Directly related to the proposed development
  - Fairly and reasonably related in scale and kind to the proposed development
  - Reasonable in all other respects
- 15.3 Discussions are currently on going with regard to the agreed heads of terms of the S.106 agreement, however, a draft has been prepared where the developer has committed to providing a television reception survey to determine whether the operational wind farm would have any impacts upon the quality of television reception in the area and a commitment to aerial realignment or any other remedy to overcome potential reception problems at dwellings. This agreement would be between Carmarthenshire County Council, the Welsh Ministers and RWE Npower Renewables Limited.
- 15.4 The television survey and proposed remediation is acceptable in principle, however, this alone is considered insufficient. The Council suggests the following should be considered as part of the S.106 legal agreement in order to overcome specific planning objections and provide enhancement opportunities.

- **Public Rights of Way Improvement Fund**

During the operational lifetime of the development the developer shall provide an annual commuted sum to the Council toward the improvement of Public Rights of Way in an area identified outside the application site. This will create an improved network of footpaths in the area which could encourage more people to access the countryside for recreational purposes. The Council is currently preparing details of the annual costs based on existing maintenance and improvements per kilometre of PRoW. Further justification for this fund is provided in Section 10 of the LIR, whilst a plan detailing the extent of the PRoW Improvement Area is contained at **Appendix 10.1**.

- **Access Management Plan**

Draft Requirement 14 of the DCO refers to the applicant's commitment to providing an Access Management Plan prior to commencement of development. The Plan will be based on the principles outlined in the ES and its purpose will be to outline mitigation and enhancement opportunities to ensure public access and recreation within the forest is safeguarded during the construction and operational stages of the development. The Council considers that some of the principles outlined for the Access Management Plan will need to be covered by S.106 agreement. These include the new way

marked route and possibly a new bridge crossing the Pib river, as the location is currently unclear. These are considered as positive enhancement opportunities but if they are outside of the application site, they will need to be secured through legal agreement to ensure they are implemented as proposed.

- **Habitat Management Plan**

The Council has concerns with regard to the proposed principles of the HMP as set out in the ES, in that more mitigation is required in respect of nightjar and semi-natural habitats. These are documented in Section 7 of the LIR. If the developer provides information to overcome the Council's concerns and the land identified for nightjar and semi-habitat mitigation is outside of the applicant site then these will have to be secured by S.106 agreement.

- **PAWS Restoration and Compensatory Habitat**

It appears that part of the area of land designated for PAWS restoration is outside of the site and will therefore need to be controlled through S.106. Furthermore the compensatory replanting proposed by FCW to replace trees removed as part of the development is limited in terms of detail. It is likely that this area(s) will be outside of the application site. Location details are requested and the commitment should be secured through S.106 agreement.

- **Monitoring / Enforcement**

The monitoring and enforcement of the wind farm during construction and operation is likely to put increased pressure on the resources of the Council. Complaints regarding issues such as noise will have to be investigated and equipment will need to be made available to collect data. The Council considers that the applicant should provide the necessary funds to meet the annual costs of monitoring and enforcing. A S.106 agreement may or may not be the most appropriate means of obtaining these contributions; therefore the Council seeks the views of the Examining Authority.

- **Annual Contribution to Carmarthenshire Energy Trust (CET)**

The CET is a voluntary third sector body which has the following objectives:

- To create a knowledge base for energy production and consumption in Carmarthenshire, providing the basis to map a path of transition to a low carbon economy in line with or ahead of national and international carbon dioxide emissions reduction targets
- To create the investment mechanism required to maximise local, social ownership of the renewable energy production required to effect that transition.
- To do this within a partnership of public, private and community based organisations.
- The Association shall be a non-party in politics and non-sectarian in religion.

The Council proposes that the S.106 heads of terms should include an annual commuted sum to CET. Currently the investment mechanisms make it difficult for much community led renewable energy projects to progress. The fund

would contribute toward the cost of feasibility studies, installation etc. There is concern that the monies associated with a Community Benefit Fund would be spread too thinly over a broad range of projects associated with sustainable development and may not capture sufficient community renewable energy projects. To ensure close links with the proposed developed the funds should be targeted towards schemes located within communities surrounding the application site. An annual commuted sum to CET will ensure the association continues to fulfil its remit and provide more focus for renewable technologies. The monies would be given to the Council in the first instance then given to CET to administer and oversee projects.

- 15.5 There is a likelihood that the Council and the applicant will not come to an agreement on the inclusion of some of the heads of terms. In this event the Council, will request that the Examining Authority make the assessment.

## E CONCLUSION

### 16.0 SUMMARY OF THE POSITIVE NEGATIVE AND NEUTRAL IMPACTS OF THE PROPOSED DEVELOPMENT

- 16.1 The IPC Advice Note: Local Impact Reports (March 2010) states that the LIR “...should consist of a statement of positive, neutral and negative local impacts, but it does not need to contain a balancing exercise between positive and negatives...” It further states that: “It would assist the Commission if the local authority is able to give its views on the relative importance of different social environmental or economic issues and the impact of the scheme on them”.
- 16.2 This section of the LIR is set out in accordance with the guidance and provides a summary of the positive, negative and neutral impacts of the matters covered in Sections 5.0 – 11.0 of the LIR.

#### **Positive**

##### Socio-Economic

- Employment opportunities
- Inward Investment
- Local supply chain economic benefits
- Investment in local community
- Short term benefits to local accommodation providers

##### Public Access and Recreation

- Provision of a new west – east way marked route within the Brechfa Forest application site and along the Afon Pib
- Improved signage within the application site for users of the Public Right of Way network and permissive trails
- Provision of two new footbridges crossing the Afon Pib

#### **Neutral**

##### Shadow Flicker

- Predicted impacts upon neighbouring occupiers considered negligible

#### **Negative**

##### Landscape and Visual

- Impacts to Landscape Character
- Impacts to Visual Amenity. All viewpoints within 12.95km (except viewpoint 6) are judged to have significant adverse visual impacts
- Impacts to the visual amenity of local residents
- Impacts to the amenity of the following local residents within 2km of the site: Bryngolau, Blaengwyddgrug, Lanclynadda, Gellifelen, Coedlannau Fawr, Llaingam
- Impacts upon recreational users of the Brechfa Forest

- Impacts upon users of open access land on Mynydd Llanllwni
- Impacts upon recreational users of wider public footpath network
- Tourism
- Future tourism potential
- Grid connection

#### Noise

- Overall noise impact
- Cumulative noise impact with neighbouring existing and proposed wind farms in SSA G will harm the amenity of local residential occupiers

#### Ecology and Ornithology

- Habitat loss in Brechfa Forest West
- No acceptable mitigation for nightjar
- Habitat and biodiversity loss due to local access off A485
- Aquatic habitats

#### Access, Traffic, Transportation and Associated Engineering

- Increase in HGV traffic judged to be marginally negative
- Cumulative HGV traffic will result in a negative impact. This will be reduced to marginally negative if the movements can be coordinated with other developers.
- Direct access off the A485 will result in negative impacts without acceptable mitigation control measures.

#### Socio-Economic

- Weak assessment methodology
- Employment in tourist based businesses could be harmed
- Impact upon tourist resource
- Impact upon tourist receptors
- Impact upon future tourism potential

#### Public Access and Recreation

- Inadequate assessment methodology has not established a representative baseline of recreational users.
- Construction impacts upon recreational users of the Brechfa Forest
- Impacts upon the PRoW / Open space network within Brechfa Forest West

## 17.0 SUMMARY OF APPRAISAL OF COMPLIANCE OF THE PROPOSED DEVELOPMENT WITH LOCAL POLICY

17.1 A full appraisal of the proposal against local planning policies is set out in Section 12 of the LIR. The proposed development complies with some policies but is against others. Some policies have a number of criteria therefore there are instances where the development is in compliance and in breach of the same policy. Where this has occurred the relevant criteria has been indicated. A summary is provided below:

### 17.2 In Compliance:

CUDP14	Renewable Energy
GDC1 (iv), (v)	Sustainable Development
GDC3 (vii)	Development in the Countryside
UT5 (introduction)	Renewable Energy
UT6 (introduction)	Wind Energy

### Not In Compliance:

GDC1 (i), (ii) (v)	Sustainable Development
GDC2	Overall Development Policy
GDC8	Visual Impact and Physical Topography
GDC12	Generation of Traffic
EN5	Protection and Enhancement of Flora and Fauna
EN8	Landscape Features of Major Importance– Flora/Fauna
EN9	Site Protection - Habitats/Species of Biodiversity Concern
EN13	Hedgerows
REC10	Rights of Way
T3	Highway Considerations of Development
UT5 (i), (ii)	Renewable Energy
UT6 (i), (ii), (iii), (v), (vi)	Wind Energy