

**MID-WALES (POWYS) CONJOINED PUBLIC INQUIRY**  
**ELECTRICITY ACT 1989 (SECTIONS 36, 37, 62(3) & SCHEDULE 8)**  
**TOWN AND COUNTRY PLANNING ACT 1990**

**LLANBRYNMAIR WIND FARM**

**STATEMENT OF CASE FOR SESSION 2 (SSA B)**  
**ON BEHALF OF RES UK AND IRELAND LTD**

**INTRODUCTION**

- 1 This is the Statement of Case (SoC) prepared and submitted on behalf of RES UK and Ireland Limited ("RES") in relation to its application ("the Application") for consent pursuant to Section 36 of the Electricity Act 1989 to construct and operate the Llanbrynmair wind farm in Powys, Mid-Wales ("the Development").
- 2 This SoC should be read in the light of the outline SoC, dated 21st January 2013. Pursuant to the Inquiry Timetable<sup>1</sup>, this SoC addresses the matters to be covered in session 2 of the Inquiry.
- 3 Session 2 addresses the individual impacts of the proposed developments at Llanbrynmair and Carnedd Wen and the cumulative effects of the proposed developments in SSA B. The cumulative effects of all proposed

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<sup>1</sup> See ID/4 at 6.0 and p.9

developments before the Inquiry will be considered in session 4. The topics to be considered in session 2 are:<sup>2</sup> landscape and visual impact, cultural heritage, noise and health, local transport, construction/peat/hydrology/forestry and wildlife.

### **THE APPLICANT**

- 4 The application is made by RES UK & Ireland Ltd (“RES”) one of the world’s leading independent renewable energy project developers with operations across Europe, and worldwide.
- 5 As a respected British company with over 30 years experience of planning, building and operating renewable energy projects, RES has been an established presence at the forefront of wind energy development since the 1970s and has developed and/or built more than 7.5 GW of wind energy capacity worldwide. This includes projects in the UK, Ireland, France, Scandinavia, and the United States, with a large additional portfolio currently in development. In the UK alone, RES currently has more than 1 GW of wind energy projects either constructed, under construction or consented. In 2013 RES was awarded for the second time, the Queen’s Award for Enterprise, this year for International Trade, following recognition in 2005 under the “Sustainable Development” category.<sup>3</sup>

### **THE APPLICATION**

- 6 In March 2009 RES applied for consent under section 36 Electricity Act 1989 for a wind energy development of up to 43 turbines on land between the villages of Llanbrynmair and Llanerfyl in Powys. In addition to the wind turbines, the proposal would provide for the associated infrastructure including on-site tracks, underground cabling, crane hardstandings, a communications mast, a permanent 80 metre high free standing lattice

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<sup>2</sup> See ID/4 at p.9

<sup>3</sup> See the SEI at 1.4

wind monitoring mast, electrical transformers, electrical connection works, a substation and control building.

7 As a result of representations made subsequent to the application the proposal has been amended so that it comprises 30 turbines and various amendments have been made to the associated infrastructure.<sup>4</sup>

8 The proposed wind turbines would comprise a conventional design of three blades and a tapered tubular tower. The overall height to blade tip would not exceed 126.5 metres (415 feet). The ultimate choice of turbine would be subject to a competitive tendering process within the parameters set out. A number of turbines currently on the market would meet all of the relevant criteria for the proposal (including for example noise specifications). The installed capacity of the turbines will depend upon the final turbine choice but can be expected to be with the range of 2 MW to 3 MW which would mean that the proposal would have a total installed capacity of between 60 MW to 90 MW.

9 The application site lies within the originally formulated SSA B (for the purposes of TAN 8). It is centred on grid reference E294500 N306500. It covers an area of just over 1700 ha (4200 acres) and consists of small to medium sized fields primarily used for grazing sheep and cattle with some fields being cultivated for vegetable crops.<sup>5</sup>

10 The proposal has been subject to extensive environmental appraisal. The original Environmental Statement was produced in 2008 and as a result of issues raised there have been 5 sets of Supplementary Environmental Information.<sup>6</sup> Further Supplementary Environmental Information (August

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<sup>4</sup> See section 2 Powys CC Cabinet Report 25/9/12

<sup>5</sup> See section 1 Powys CC Cabinet Report 25/9/12 and the SEI at 1.3

<sup>6</sup> A convenient summary is contained in section 3 Powys Cabinet Report 25/9/12 and in the SEI at 1.7

2013) was issued on 12 August 2013. The SEI collates all relevant information from the aforementioned documents and incorporates additional information subsequently requested by statutory consultees.

- 11 The adequacy of the Environmental Statement is not disputed by Powys County Council (PCC) ("the LPA").

### **OVERVIEW**

- 12 The land use planning impacts to be considered in session 2 must be considered in the light of the pressing need to address climate change and improve security of energy supply.
- 13 There is widespread national and international recognition of the problems arising from climate change, the need to reduce carbon dioxide emissions and provide more electricity from renewable sources. The EU Climate and Energy package (formally agreed April 2009) commits the EU to achieving a reduction in EU greenhouse gas emissions of 20% by 2020 compared to 1990 levels and included a binding renewable target of 20%. The UK's share of this target is to deliver 15% renewable energy by 2020 which compares with a figure of 3.8% in 2011<sup>6</sup>. Under EU Decision 406/2009/EC the UK has a binding target of a 16% reduction in greenhouse gas emissions by 2020 compared to 2005 emissions levels. Not surprisingly, the UK Renewable Energy Strategy (UK RES) states that the UK needs to increase radically its use of renewable energy.<sup>7</sup>
- 14 The importance and difficulty of achieving these (and other) aims has been reiterated on numerous occasions by the coalition government (see the Energy Statements, the National Renewable Energy Action Plan for the UK, the Carbon Plan and the UK Renewable Energy Roadmap and Updates).

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<sup>7</sup> SOCG-Policy-001 5.11

- 15 The NPSs<sup>8</sup> recognise and seek to address the national imperative to deliver further renewable electricity generation. They provide *inter alia*:
- i) *"...The need for new renewable electricity generation projects is therefore urgent"* (NPS EN 1 at 3.4.5);
  - ii) *"As part of the UK's need to diversify and decarbonise electricity generation, the Government is committed to increasing dramatically the amount of renewable generation capacity...In the short to medium term, much of this new capacity is likely to be onshore and offshore wind..."* (NPS EN 1 at 3.3.10);
  - iii) *"...it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts"* (NPS EN 1 at 3.2.3).
- 16 In the context of a proposal of this nature and scale, the NPSs make it plain that the need for the development is a given and is not open to challenge or discussion.
- 17 It must therefore be recognised by decision-makers that development on the scale required to meet the energy needs identified and to satisfy the Government's policy will inevitably have land use planning impacts. Indeed, NPS EN1 advises that it will not be possible to develop the necessary amounts of infrastructure without some significant residual impacts.<sup>9</sup> The mere identification of impacts does not establish any conflict with policy. Furthermore, even in the event the proposal is found

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<sup>8</sup> Although the NPSs do not apply directly to the applications in the manner that they do to applications under the Planning Act 2008, they clearly form the up to date policy basis for determination of projects of this nature and scale and substantial weight should be attached to them as the Secretary of State has recognised and confirmed (see SOCG-Policy 001 2.9)

<sup>9</sup> At 3.2.3

to give rise to any residual harm this needs to be weighed against the acknowledged urgent national need to deliver new renewable energy generation capacity.<sup>10</sup>

- 18 The need for increased production of renewable energy is also recognised in the Welsh Government’s energy and climate change policies. The Welsh Government’s Energy Policy Statement in 2010 evinced an aim to have 4.5 kWh/d/p of installed wind generation capacity by 2015/17 which was to be achieved inter alia by “*optimising the use of the existing strategic search areas set out in Technical Advice Note (TAN 8)*” and providing sensitively designed new grid connections.<sup>11</sup>
- 19 The urgent importance of addressing climate change and providing for greater renewable energy production is also recognised in planning policy in Wales. Planning Policy Wales (PPW) states that tackling climate change is a fundamental part of delivering sustainable development based on a scientific imperative to act urgently to reduce greenhouse gas emissions.<sup>12</sup>
- 20 PPW 12.8.5 provides that LPA's (particularly those containing SSAs, such as Powys) should take the Welsh Government's *imperative* for renewable energy into account when consulted on applications such as the current proposals. PPW 12.8.13 explains that the SSAs are “*areas in Wales which, on the basis of substantial empirical research, are considered to be the most appropriate locations for large scale wind farm development*”<sup>13</sup>. PPW 12.8.14 explains that whilst cumulative impacts within SSAs can be a material consideration, it must be balanced against the need to meet the Welsh Government’s renewable energy aspirations.

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<sup>10</sup> SOCG-Policy-001 at 2.16

<sup>11</sup> SOCG-Policy-001 at 6.12

<sup>12</sup> SOCG-Policy-001 at 7.16

<sup>13</sup> Emphasis added

- 21 The policy approach taken in Wales has been to identify 7 SSAs that are intended to deliver more than three-quarters of Wales' renewable energy contribution from onshore wind by 2017.<sup>14</sup>
- 22 TAN 8 (technical advice to support PPW) concluded (in the light of technical work undertaken by consultants on behalf of WAG) that, for efficiency and environmental reasons, large scale onshore wind farms should be concentrated in defined SSA's.<sup>15</sup> Each SSA has an indicative target for installed capacity to be built and connected by 2010. These figures are advanced in order to assist the planning process but are not to be seen as the definitive capacity for the areas.
- 23 The position with respect to SSA capacities has changed since the 2010 target date has passed. The Energy Minister confirmed in a letter (in 2011) that the capacity should be taken as that set out in the technical work: 1666 MW (for the 7 SSAs) and 430 MW (for SSA B). In area B only 100 MW of the identified 430 MW has to date been consented. Given the imperatives identified above it is critical that development be brought forward within SSA B without any further delay.
- 24 The Llanbrynmair proposal falls within SSA B. As such, any consideration of the proposal must take place in the context of (i) the established need for and importance of proposals of this nature; and (ii) the prior identification of this area as a suitable and critical location for directing this form of development; and (iii) the existing failure to deliver the much needed levels of wind energy development within SSA B.
- 25 In the light of TAN 8, the LPA commissioned ARUP to undertake refinement studies of the SSA. An initial refinement exercise was

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<sup>14</sup> SOCG-Policy-001 at 7.24

<sup>15</sup> SOCG-Policy-001 at 7.28

undertaken in 2006. This resulted in a radical change to the extent of SSA B but it is significant that all of the current proposal for Llanbrynmair fell within this reduced area. This refinement exercise was subsequently reviewed in 2008. As a result of the review exercise the proposed areas were revised such that all of the Llanbrynmair proposal fell within it.

26 Thus it can be seen that within SSA B the most appropriate areas for development have been considered on 2 occasions by consultants on behalf of Powys CC who have concluded that the area of the Llanbrynmair proposal comes within the most suitable locations for this form of development.

27 The Llanbrynmair proposal (and the topics to be discussed in session 2) must therefore be considered in the context of the application site (as part of SSA B) having been repeatedly identified as suitable for this form of development and the critical need for this area to contribute towards the pressing need for further renewable energy development.

### **LANDSCAPE AND VISUAL IMPACT**

28 A Zone of Theoretical Visibility has been modelled to 30km (as requested by Natural Resources Wales (NRW) in their scoping response). This area represents the study area considered for potential landscape and visual impacts arising from the proposed turbines. In reality, however, significant effects only occur within a more limited area (as set out in the SEI (Aug 2013)).

29 In the light of the relevant national and local planning policy and in accordance with a methodology consistent with the *Landscape and Visual Impact Assessment Guidelines (3rd Edition)*, the applicant will produce evidence to session 2 which addresses the landscape and visual impact of the development.

30 In terms of landscape impact, the evidence will (so far as necessary) consider *inter alia* the following:<sup>16</sup>

- The baseline landscape character (including relevant landscape designations) of the area within 30km of a proposed turbine;
- The landscape sensitivity of the area within 30km of a proposed turbine;
- The magnitude of change to the landscape within 30km of a proposed turbine;
- The significance of effect to the landscape within 30km of a proposed turbine (including the impact of highway improvements);
- Proposed mitigation;
- The residual landscape impact;

31 The LPA are solely concerned with the landscape impact of the proposed highway improvements on the Nant y Eira Valley.<sup>17</sup> This issue will be specifically addressed.

32 In terms of visual impact, the evidence will (so far as necessary) consider *inter alia* the following:<sup>18</sup>

- The identification of representative viewpoints within 30km of a proposed turbine;
- The sensitivity of relevant visual receptors;
- The magnitude of change to relevant visual receptors;
- The significance of effect to relevant representative visual receptors within 30km of a proposed turbine (including the impact of highway improvements);

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<sup>16</sup> See SEI section 4

<sup>17</sup> See PCC SoC at 5.1.2, 5.5.1 and 5.5.2

<sup>18</sup> See SEI section 4

- The significance of effect on individual properties within 2.5km of a turbine (including the impact of highway improvements);
- Proposed mitigation;
- The residual visual impact.

33 Finally, the evidence will consider the cumulative landscape and visual impact of the proposed development with other existing and proposed wind energy developments in SSA B.

34 The scale of wind turbines is such that they must inevitably have some landscape and visual impact wherever they are located. Given the inevitability of such impacts, the clear national and local policy support for this form of development means that a degree of impact must be acceptable. Accordingly, the starting point for consideration of those impacts is that this is an area repeatedly identified as an area to which such development is specifically directed.

35 Extensive work has been done to reduce the impacts inevitably associated with the development of a wind farm. This has included careful consideration of siting, reduction in the number of proposed turbines, and substantial mitigation proposals (including off-site highway works).

36 In common with any windfarm the proposal can be anticipated to have a significant impact upon the application site and immediately adjacent area. It will also have a relatively limited number of visual impacts. This will include impacts arising from highway works to provide access to the site. However, as could be expected from the repeated identification of this area as an area to which such development should be directed, the proposal is capable of being appropriately assimilated into the landscape without any unacceptable landscape or visual impacts.

37 Indeed, the Local Planning Authority accepts that the reduction in turbines from 43 to 30 has considerably reduced the impact of the proposed development, such that the landscape and visual impact of the turbines would not justify the refusal of the application.<sup>19</sup> In the context of this application, such agreement is significant.

### **CULTURAL HERITAGE**

38 In order to assess the cultural heritage impacts of the development, a distinction has been made between assessing the effect of the wind farm on (i) historic assets within the application site and (ii) assets in the wider landscape (up to 5 or 10km from the wind turbines).

39 In the application site, all historic assets (designated and undesignated) have been included in the assessment, in order to understand the heritage potential of the application site and to identify significant direct physical effects on historic assets that might occur during construction.

40 In the wider study area, all designated assets have been included in the assessment, in order to identify significant effects resulting from any change in the setting of historic assets for the duration of the operational period of the wind farm. Consideration has also been given to the potential for undesignated assets to experience significant setting effects.

41 At the request of the LPA, all designated assets were included in the study up to 5km from the wind turbines and selected types of designated asset were considered up to 10 km away. The two categories are as follows:

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<sup>19</sup> See LPA SoC at 5.5.2

- 10km: Registered Landscapes of Historic Interest, Grade I and II\* Registered Parks and Gardens of Historic Interest, Scheduled Monuments, Grade I and II\* Listed Buildings;
- 5km: Conservation Areas, Grade II Registered Parks and Gardens of Special Historic Interest, Grade II Listed Buildings

42 Assessment of any potential cumulative effects was based on consideration of any operational, consented or proposed wind farms within 10km of the Llanbrynmair turbines.

43 The applicant's evidence will demonstrate that the cultural heritage assessment has been carried out in the following stages:

- Desk-based study of existing records leading to the identification of historic assets potentially affected by the development;
- Field surveys to supplement baseline information and identify previously unrecorded historic assets;
- Definition of baseline conditions, based on results of the desk-based study and field survey;
- Identification of predicted effects on historic assets (informed by baseline information, site visits, Zone of Theoretical Visibility (ZTV) figures, wirelines and photomontages);
- Assessment of the magnitude of identified effects;
- Assessment of the importance of historic assets affected by the development;
- Assessment of the EIA significance of effects, broadly a product of the asset's importance and the magnitude of the effect;
- Proposal of appropriate mitigation measures; and

- Recognition of residual effects.

- 44 In the light of such an assessment, the applicant's evidence will demonstrate that the proposed development would result in adverse effects on historic assets during the construction phase and operational period. However, none of the resulting residual effects would be significant (in EIA terms). Careful management of the decommissioning phase would ensure that no further adverse impacts occur on assets already impacted by construction works.
- 45 Construction works within the wind farm site would adversely impact on three undesignated assets: (i) an area of peat cutting, (ii) an area of clearance cairns and (iii) a single clearance cairn. These are considered to be adverse effects of no more than "minor" significance. No material adverse effects have been identified due to proposed off-site highway works.
- 46 Construction works could also damage currently unrecorded sub-surface archaeological features. This is an adverse effect of no more than "moderate" significance. All adverse effects due to construction works would be fully mitigated by an appropriate programme of archaeological excavation and recording secured by planning condition.
- 47 Operation of the wind farm would affect the heritage significance of three historic assets through visual change in their settings. There would be adverse effects of "minor" significance on a hillfort at Moel Ddolwen (Scheduled Monument), the Church of St Mary, Llan (Listed Building Grade II\*) and Llan Conservation Area.

- 48 Operation of the wind farm in combination with proposed wind farms at Carnedd Wen and Mynydd Waun Fawr would lead to cumulative adverse effects on the significance of the same three assets affected by Llanbrynmair alone. The hillfort at Moel Ddolwen would be adversely affected by both Carnedd Wen and Mynydd Waun Fawr, the Church of St Mary, Llan and Llan Conservation Area would be adversely affected by the operation of Carnedd Wen. In all cases the magnitude and significance of effect would not be materially greater than the effect due to Llanbrynmair alone.
- 49 Mitigation has been achieved, where possible, through design of the wind farm and minimises the level of harm to the historic assets.
- 50 Any effects on the historic landscape or the setting of historic assets would occur for the duration of the operational life of the wind farm and then be fully reversed on decommissioning.
- 51 In all the circumstances, therefore, the applicant's case is that the impact on cultural heritage is acceptable.
- 52 The LPA did raise a cultural heritage objection to the scheme principally due to their view that the works necessary to provide access for Abnormal Indivisible Loads (AILs) had unacceptable impacts on listed buildings and other historical assets in and around Llanerfyl.<sup>20</sup>
- 53 However, PCC acknowledge that the cultural heritage assessment contained in the SEI (Aug 2013) has significantly overcome those concerns and that any outstanding matters can be dealt with by way of

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<sup>20</sup> See inter alia PCC SoC at 5.6.1

detailed design.<sup>21</sup> The Applicant's evidence will reflect this level of agreement and invite the SoS to attach significant weight to it.

### **LOCAL TRANSPORT AND ACCESS**

54 Based on experience of previous wind farm developments, it is acknowledged that the proposal will inevitably generate construction traffic of a temporary nature during the construction programme for the external enabling works and the internal site construction. The potential effects from the proposal relate to the construction phase alone. Once operational, the development is not considered to result in any material increase in traffic flows on the highway network.

55 A multi-disciplinary approach to the design of the enabling highway works has been adopted. This has resulted in variations to the transportation and access proposals for the scheme, as part of an iterative design process.

56 The submitted Local Transport Management Plan (LTMP) considers the impacts of the construction traffic on the adjacent trunk roads and the county road.

57 The proposal intends to route traffic along the Llanerfyl to Talerddig road, which is a route along the Nant yr Eira valley. It links the settlements of Llanerfyl on the A458 to the north and Talerddig on the A470 to the south. The length of the road is 17.5km in length between Llanerfyl and Talerddig. Between Llanerfyl and Neinthirion the road is classified as the C2031. The remainder of the road from Neinthirion to Talerddig is unclassified as the U2319. The road has had only a single minor road traffic incident within the last five years (2007 – 2012).

58 The application had previously proposed 4 site accesses:

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<sup>21</sup> *ibid*

- Site Access 1 - (Chainage 8250m);
- Site Access 2 - (Chainage 10150m);
- Site Access 3 - (Chainage 12000m); and
- Site Access 4 - (Chainage 12350m);

59 Site Access 3 has since been removed from the proposals and all construction vehicles which would have used Access 3 are now proposed to use Access 2. The access names remain as 1, 2 and 4.

60 The remaining three site accesses are existing junctions off the Llanerfyl to Talerddig road, leading to access tracks. These will be upgraded to form the site access junctions which are designed to accommodate the temporary construction traffic and Abnormal Indivisible Loads (AILs). The design for the site entrance junctions are included within the LTMP.

61 From the site accesses the proposed access tracks lead to the site compounds and the construction platforms for the wind turbines. The access tracks are 5.5m in width. The total length of access tracks is up to approximately 25.2km. The layout of the turbines and access tracks on site has been designed to use existing tracks and to avoid environmentally sensitive areas (the more sensitive ecological, archaeological and hydrological areas).

62 Some sections of the construction traffic route from Talerddig to the site entrances require mitigation so that the proposal does not adversely affect the enjoyment and safe use of highways, the PROW or have a detrimental impact on the long term character of the route. The required mitigation works along the proposed construction and AIL traffic routes to the site are detailed within the LTMP.

- 63 The applicant's evidence will demonstrate that access by AIL's is technically feasible.
- 64 The applicant's evidence will demonstrate that the local transport and access impacts will be acceptable, when considered in the light of the relevant legal and planning policy background, especially given the specific identification of the application site as being appropriate for wind turbine development in SSA B.
- 65 The Council does not contest the need for access to the site for HGV's and AIL's. The Council agrees that the access proposal is technically feasible for AIL's.<sup>22</sup> The Council is concerned, however, that the applicant has failed to demonstrate:<sup>23</sup>
- (i) Why access for AIL's (at the very least) could not gain access from the Carnedd Wen wind farm site; and
  - (ii) Why access for construction vehicles could not be gained via a single southernmost access from the Llanerfyl to Talerddig road.
- 66 The applicant's case is that (even taken uncritically and at their highest) such concerns do not justify the refusal of planning permission. There is no legal and/or planning policy requirement for the applicant to assess alternative access routes, given the acceptability of the proposed access routes.
- 67 An access for AIL's via Carnedd Wen does not form part of the applicant's proposals and could not take place inside the application site. Such a proposal has not been formally assessed by the applicant. Indeed, until recently, the Council has not asked the applicant to consider it.

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<sup>22</sup> PCC SoC at 5.1.2

<sup>23</sup> PCC SoC at 5.1.3

- 68 The applicant considers that the proposed access route is acceptable and complies with relevant legal requirements and planning policies. In fact, the proposed access strategy, when implemented, will materially improve existing highway conditions. Such improvements include (but are not limited to): two way traffic at Gosen Bridge, off-road parking at Diosg and the provision of additional passing places. Such local highway improvements would not be delivered if access is taken via Carnedd Wen. Further, the Council has not specified an alternative route via Carnedd Wen and has not demonstrated with evidence that such an alternative route will have any materially lesser highway and/or environmental impact. The applicant will address any such evidence provided by the Council.
- 69 Further or alternatively, there is no certainty that the Carnedd Wen proposal will be granted planning permission. It is unreasonable to make the delivery of the acceptable Llanbrynmair scheme (including an acceptable access strategy) conditional on the grant of permission of another scheme which may or may not (ultimately) be permitted and/or developed. There is an urgent need to deliver renewable energy schemes now. The Carnedd Wen scheme requires a multi-year tree felling programme prior to the commencement of development, including the construction of access tracks. The applicant will provide evidence to demonstrate that the delivery of the Llanbrynmair scheme should not be unnecessarily compromised or delayed by requiring access through an area over which it does not have control, when there would be no demonstrable material environmental benefit of so doing.
- 70 The 3 site entrances have been selected because they are existing entrances or field accesses from the public highway. The use of existing entrances has allowed the internal infrastructure design to use existing tracks within the site boundary to reduce the footprint of new development and to reduce the impact on habitat management areas. Reducing the

development to one or two entrances would require significant additional sections of internal access tracks to connect the northern, central and southern section of the development. Having considered the required two additional sections of internal access track, the applicant has concluded that the environmental impact of reducing the number of site entrances would be greater than currently proposed. The proposal with 3 access points has less environmental impact and a smaller development footprint. Indeed, until recently, this has not been questioned by the Council.

71 If, which is denied, there is any conflict with policy attributable to any demonstrable failure to minimise environmental impacts, such conflict must be weighed in the planning balance. The applicant's case is that any conflict with policy which the Council can demonstrate is clearly outweighed by the benefits of the proposal (and the related compliance with policy).

72 The applicant will demonstrate, therefore, that the local transport and access impacts will be acceptable, when considered in the light of the relevant legal and planning policy background, especially given the specific identification of the application site as being appropriate for wind turbine development in SSA B

### **NOISE AND HEALTH EFFECTS**

73 There is not, and nor has there ever been, any objection from the LPA on noise and health grounds. It is, nonetheless, an issue on which the SoS wishes to be informed.

74 As described in TAN 8:

*"There are two quite distinct types of noise source within a wind turbine - the mechanical noise produced by the gearbox, generator and other parts of the drive train and the aerodynamic noise produced by the passage of*

*the blades through the air. There has been a significant reduction in mechanical noise since the early 1990's so the latest generation of wind turbines are much quieter than those first installed in Wales. Aerodynamic noise from wind turbines is generally unobtrusive – it is broad-band in nature and in this respect is similar to, for example, the noise of wind in trees.”*

- 75 Aerodynamic noise is usually only perceived when the wind speeds are fairly low. In higher winds, it is generally masked by the normal sound of wind blowing through trees and around buildings.
- 76 The sources of construction noise, which are temporary, will vary both in location and their duration (as the different elements of the wind farm are constructed) and will arise primarily through the operation of large items of plant. Noise will also arise due to the temporary increase in construction traffic near the site, dependent on the different elements of the wind farm being constructed at the time.
- 77 In the light of the relevant planning policy guidance, including ETSU-R-97, the applicant's evidence will address:
- The nearest noise sensitive properties;
  - The background noise levels;
  - The methodology for assessing construction noise;
  - The methodology for assessing traffic noise;
  - The methodology for assessing the noise impact of the operational turbines;
  - The relevant impacts on the nearest noise sensitive properties;
  - Mitigation measures;
  - Planning conditions;
  - Residual noise and health effects.

78 The applicant's evidence will demonstrate that: (i) as a result of construction noise, predicted noise levels at representative noise sensitive properties will be below construction noise criteria, taking into account the proposed mitigation; and (ii) the impact of the operational wind farm will comply with ETSU-R-97 guidelines. Accordingly, the noise and health impact on noise sensitive properties will be acceptable as the LPA agrees.

### **PEAT AND HYDROLOGY**

79 The proposal has the potential to affect the hydrological, hydrogeological and geological resources of the site. The LPA is satisfied that the surface water issues can be resolved acceptably via conditions. The only remaining issue concerns peat.<sup>24</sup>

80 Following extensive consultation with NRW a significant amount of effort has been expended in understanding and assessing (i) the spatial distribution and depth of peat across the site and (ii) the potential effects of the proposed scheme on sensitive receptors, such as the peat resource. Additionally, impacts on private water supplies, groundwater, GWDTEs and the Afon Gam and its upper tributaries have also been assessed.

81 The sensitivity of receptors, the magnitude of change and the significance of any potential effects has been assessed, for the construction, operation and decommissioning of the proposal.

82 Before mitigation (over and above best practice techniques), there is the potential for effects of "moderate" and "moderate/major" significance to occur to water quality, peat hydrology, peat resource and GWDTE.

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<sup>24</sup> PCC SoC at 5.3.1

- 83 In order to reduce such effects, a number of specific mitigation measures and management plans (including a Peat Management Plan, Construction Method Statements and a Construction Environmental Management Plan (CEMP), to be secured via planning conditions) have been proposed.
- 84 In addition, the design of all new or upgraded water crossings and borrow pits will be finalised with the relevant authority and appropriate consents or licences will be obtained before construction commences.
- 85 With the proposed mitigation, monitoring and management in place, the significance of the residual effects of the proposal on the hydrology, hydrogeology and geology of the site (including peat resources) would be "negligible" to "minor/moderate".
- 86 The impacts are therefore considered to be acceptable, in the light of the relevant legal and planning policy tests.

### **WILDLIFE**

- 87 The applicant will consider the impact to wildlife in two respects:
- (i) Ornithological impacts;
  - (ii) Other ecological impacts (non-avian ecology).

#### **(i) Non-Avian Ecology**

- 88 In the light of the relevant legal and planning policy background, the applicant's evidence will demonstrate that:
- There are no designated sites within the application site;
  - Surveys of mammals and habitats have been undertaken;

- The surveys revealed relatively sparse mammal populations (as is to be expected in an upland site);
- No potential impacts on mammals (including protected species such as badger and otter) were identified;
- There are no impacts on designated sites (whether within or without the application site);

89 The applicant proposes a Habitat Management Plan (HMP), which will deliver *inter alia* the restoration of priority bog areas. A Peat Management Plan (PMP) has also been produced to minimise the loss of peat. The HMP and PMP can be secured by condition.

90 Following implementation of the HMP, the residual non-avian ecological impact of the development has been assessed to be:

- 14.8 ha of peatland habitat will be directly lost to tracks, turbines and other infrastructure;
- There will be an additional loss of approximately 17.5ha, which includes some semi-natural habitat. It is not considered this loss will affect the overall integrity of the site;
- There will be an area of a total of 200 ha of blanket bog and mire habitat restored and maintained along with 149ha of forestry on previous peat habitat removed and habitat restored.

91 The construction of a wind farm cannot completely avoid all impacts on habitats. Nonetheless, it is considered that the restoration of habitats, together with wider habitat management measures across the site, will deliver a net gain in ecological value on the site. There is not any relevant cumulative impact. The non-avian ecological impact is therefore considered to be acceptable (in legal and planning policy terms). Such a

conclusion is entirely consistent with the identification of the application site as being an appropriate site for wind farm development through the SSA process.

**(ii) Ornithology**

92 In the light of the relevant legal and planning policy background, the applicant's evidence has considered:

- the relevant survey results;
- the sensitivity of the ornithological components of the site and surrounding areas (including relevant designations);
- the magnitude of ornithological effects;
- the significance of any ornithological impact.

93 The applicant has considered:

- (i) Direct effects: Loss of habitat;
- (ii) Direct effects: Collision risk;
- (iii) Indirect effects: Disturbance from construction and operational phases.

94 Acknowledging the potential for effects, the applicant has proposed bespoke mitigation for the construction and operational phases of the development.

95 Following mitigation (including the Habitat Management Plan), the residual effects of the proposal will be a loss of open habitat to turbine bases and tracks. The development has been designed so that higher value habitat loss has been avoided where possible, so that any loss will be mainly on habitats currently of low conservation value. Using evidence from existing wind farms it is considered unlikely that such effects will

have any long term impact on the integrity of the site's ornithological features or the conservation status of the species found there.

- 96 On the contrary, there will be a net gain to the ornithological conservation value of the site, attributable to the habitat enhancement measures (including the Habitat Management Plan). There is not any relevant cumulative impact. The avian ecological impact is therefore considered to be acceptable (in legal and planning policy terms). Such a conclusion is entirely consistent with the identification of the application site as being an appropriate site for wind farm development through the SSA process.